

# Critical Habitat Assessment

## Priority Biodiversity Feature Assessment

Project Baltica 2 including  
Operational and Maintenance Base in Port of  
Ustka



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# 1 Introduction

## 1.1 Scope and Criteria of the Critical Habitat Assessment

Critical habitat is a concept developed by the International Finance Corporation (IFC) in its Performance Standard 6 (PS6) on Biodiversity Conservation and Sustainable Management of Living Resources. It is defined as a geographic area that holds the biological or physical features which are essential for conservation and survival of threatened, endangered, or endemic species. Such habitats can also support globally significant concentrations of migratory and/or congregatory species as well as unique or threatened habitats. A critical habitat assessment is designed to identify and evaluate the potential environmental impacts of a project, and to provide recommendations for minimizing or mitigating those impacts.

For the purpose of this assessment, the outlines from *Performance Standard 6. Biodiversity Conservation and Sustainable Management of Living Natural Resources (January 1, 2012)* developed by IFC were followed, supplemented by criteria from *EBRD Performance Requirement 6 (PR6): Biodiversity Conservation and Sustainable Management of Living Natural Resources. Guidance Note (September 2022)*.

The CHA Criteria are as follows:

- **Criterion 1: Critically Endangered (CR) and/or Endangered (EN) species** - habitat of significant importance to Critically Endangered or Endangered species, as defined by the International Union for the Conservation of Nature (IUCN) Red List of threatened species and in relevant national legislation. Thresholds for Criterion 1 are the following:
  - (a) EAAA for species and their habitats listed in Annex IV of the Habitats Directive.
  - (b) Areas that support globally important concentrations of an IUCN Red-listed EN or CR species ( $\geq 0.5\%$  of the global population AND  $\geq 5$  reproductive units of a CR or EN species).
  - (c) Areas that support globally important concentrations of an IUCN Red-listed Vulnerable (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 (a).
  - (d) As appropriate, areas containing important concentrations of a nationally or regionally listed EN or CR species.
- **Criterion 2: Endemic or restricted-range species** - habitat important to the survival of endemic or restricted-range species, or unique assemblages of species. For marine systems, restricted-range species are provisionally being considered those with a limited extent of

occurrence of less than 100,000 km<sup>2</sup>. Thresholds for Criterion 2 are the following:

- (a) Areas that regularly hold  $\geq 10\%$  of the global population size AND  $\geq 10$  reproductive units of a species.

- **Criterion 3: Migratory or congregatory species** - habitat supporting species of which a significant proportion of its members cyclically and predictably move from one geographical area to another (including within the same ecosystem), for example species that form colonies or where large numbers of individuals of a species gather at the same time for breeding or non-breeding purposes (for example, foraging and roosting). Thresholds for Criterion 3 are the following:

- (a) Areas known to sustain, on a cyclical or otherwise regular basis,  $\geq 1$  percent of the global population of a migratory or congregatory species at any point of the species' lifecycle.
- (b) Areas that predictably support  $\geq 10$  percent of the global population of a species during periods of environmental stress.

- **Criterion 4: Highly threatened and/or unique ecosystems** - The IUCN is developing a Red List of Ecosystems, analogous to the Red List of Threatened Species; the data from Red List of Ecosystems should be used wherever it is possible (where formal IUCN assessments have been performed). Where formal IUCN assessments have not been performed, other assessments may be used which used systematic methods at the national/regional level, carried out by governmental bodies, recognized academic institutions and/or other relevant qualified organizations (including internationally recognized NGOs). Thresholds for Criterion 3 are the following:

- (a) Areas representing  $\geq 5\%$  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 5: Key evolutionary processes** - in certain cases, specific physical or spatial characteristics of a landscape (such as its topography, geology, soil, temperature, and vegetation) have been linked to distinct genetic populations or subpopulations of plants and animals. These distinctive features have been identified as either surrogates or triggers for ecological and evolutionary processes, and are frequently related to increased species diversity. Some of the samples of features that may lead to increasing genetic diversity which may result in speciation are:

- (a) Landscape spatial heterogeneity,

- (b) Presence of ecotones (environmental gradients, transitional habitats),
- (c) Specific arrangement of neighboring soil types (edaphic interfaces) triggering the formation of unique plant communities,
- (d) Ecological corridors and connectivity between habitats which support migrations and gene flow between populations,
- (e) Sites proved to be important for ecosystems and species in adapting to climate change.

Meeting any of the criteria 1-5 presented above is the basis for recognizing the habitat as critical.

This assessment presents critical habitat features occurring in the area of the planned Offshore Wind Farm (OWF) PGE Baltica, as well as its offshore and onshore Connecting Infrastructure (offshore/onshore CI) and Operational and Service Base Port of Ustka.

Additionally, all the species and habitats included in the analysis were assessed under Priority Biodiversity Feature (PBF) criteria, presented in EBRD Performance Requirement 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.

The criteria for PBF are as follows:

- **Criterion 1: Priority Ecosystems**

- a) EAAA is habitat type listed in Annex I of EU Habitats Directive;
- b) EAAA contains < 5% of the global extent of an ecosystem type with IUCN status of CR or EN

- (c) **Criterion 2: Priority species and their habitats**

**Threatened species**

- a) EAAA for species and their habitats listed in Annex II of Habitats Directive, Annex I of Birds Directive, or Resolution 6 of Bern Convention
- b) EAAA supports < 0.5% of global population OR < 5 reproductive units of a CR or EN species
- c) EAAA supports VU species
- d) EAAA for regularly occurring nationally or regionally listed EN or CR species

**Range-restricted species**

- e) EAAA for regularly occurring range-restricted species

**Migratory and congregatory species**

- f) EAAA identified per Birds Directive or recognized national or international process as important for migratory birds (especially wetlands)

Meeting any of the criteria presented above is the basis for recognizing the habitat or species as a Priority Biodiversity Feature.

**1.2 Project description**

**1.2.1 Wind Farm Baltica 2 and 3**

The project consists of two parts: onshore and offshore. The offshore part of the Baltica OWF covers an area of 268.2 km<sup>2</sup> and is located about 26 km from the coast, in the maritime area of the Republic of Poland. The maximum capacity of the OWF is 2,550 MWj; it will consist of up to 209 wind power plants, 418 km of cable routes, 21 substations, 2 metering and research platforms, 2 housing and maintenance platforms. The location of the Project is shown in the map below:

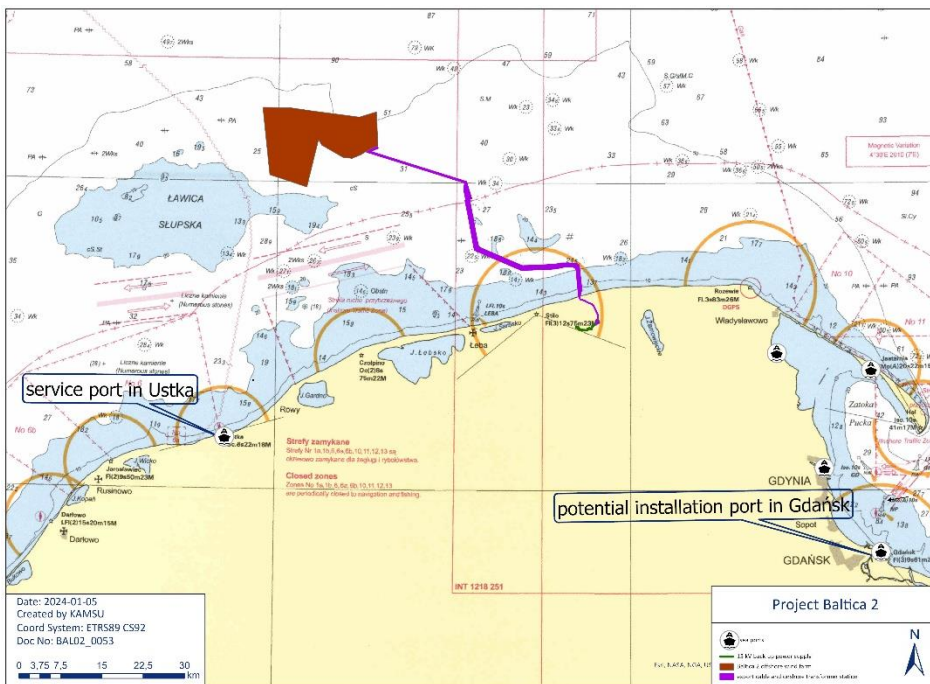


Figure 1 Location of the Project (source: documentation from the Client)

The Baltic offshore wind farm will be connected by cable lines, routed in a common cable bank, to subscriber substations (LSEs), from which electricity after transformation will be transmitted by 400 kV rated rail bridges to the designed SE Choczewo. In this regard, in the offshore part, the main components of the project

will be offshore LV AC power cable lines with fiber-optic cables inserted in special connection terminals in electrical switchboards located on MSE platforms, together with internal connections between MSEs.

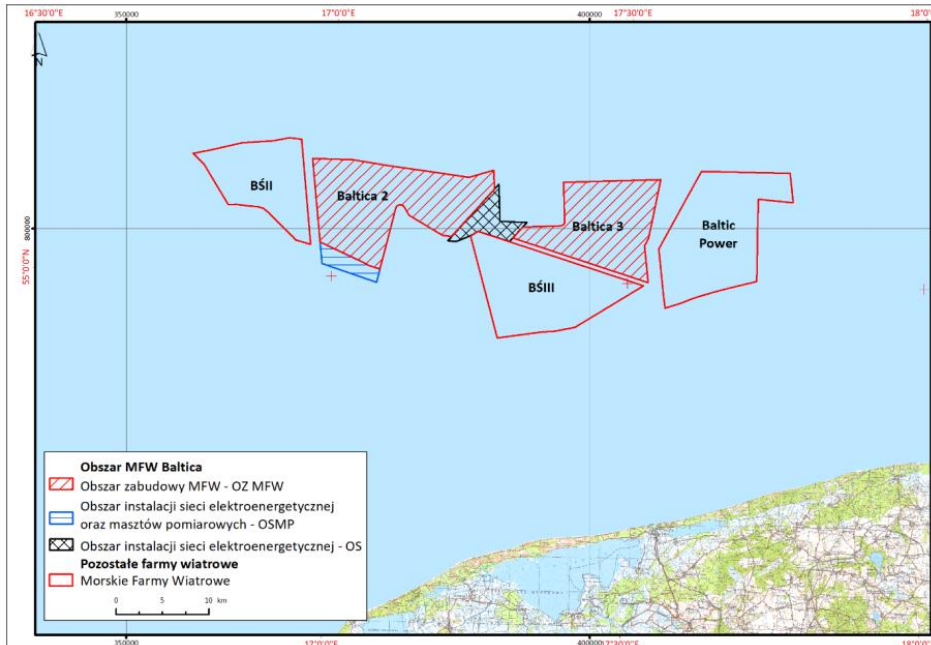


Figure 2 Location of the planned OWFs in the close neighborhood of OWF Baltica 2 and Baltica 3 (Source: EIA for development of OWF Baltica, 2017)

### 1.2.2 Operational and Maintenance Base in Port of Ustka

The project of Operational and Maintenance Base in Port of Ustka (hereafter: OMB Port of Ustka) consists of the construction of infrastructure to operate offshore wind farms “Baltica 2”. Base facilities are intended to provide technical and administrative support for the maintenance of wind farms located on Baltic Sea. The planned project includes, among others: a social and office building with a warehouse, internal roads and parking lots, maneuvering area, two container bunkering stations and accompanying infrastructure. Additionally, the project includes reconstruction of the quays, strengthening the bottom along the planned quays and minor dredging works. The location of the project is planned in the Sea Port of Ustka in an area of approximately 1.6 ha, part of the investment area of approx. 0.9 ha (the area along the quays and the bottom reinforcement) is located within the Natura 2000 area "Dolina Słupi".





Figure 3 Location of Port of Ustka and the OMB area (source: documentation from the Client)

## 2 Methodology

### 2.1 Environmentally Appropriate Area of Assessment (EAAA) determination

#### 2.1.1.1 Data collection - OWF area

For the purpose of preparation of the EIA, data on biodiversity within the planned OWF were collected within following areas:

- (d) Phytobenthos – OWF area + 1 nautical mile (=1.852 km)
- (e) Zoobenthos – OWF area + 1 nautical mile (=1.852 km)
- (f) Fish – OWF area + 1 nautical mile (=1.852 km)
- (g) Marine mammals – OWF area + 1 nautical mile (=1.852 km)
- (h) Migrating birds – OWF area + 2 nautical miles (=3.704 km)
- (i) Seabirds - OWF area + 2 nautical miles (=3.704 km) + whole area of the neighbouring N2000 area Ławica Słupska PLC990001
- (j) Migrating bats - OWF area + 2 nautical miles (=3.704 km)
- (k) Underwater habitats – OWF area + 1 nautical mile (=1.852 km)

#### 2.1.1.2 Data collection - Connecting Infrastructure area

For the purpose of preparation of the EIA, data on biodiversity within the planned offshore and onshore CI were collected within following areas:

Offshore CI:

- (l) Phytobenthos – CI area (24 transects within CI area)
- (m) Zoobenthos – CI area (256 locations within CI area)
- (n) Fish – CI area
- (o) Marine mammals – CI area
- (p) Seabirds - CI area

Onshore CI:

- Habitats – CI area + 100 m (additionally, +50 m from the road leading to the complex, planned for upgrading)
- Fungi and lichens – CI area + 100 m (additionally, +50 m from the road leading to the complex, planned for upgrading)
- Bryophytes – CI area + 100 m (additionally, +50 m from the road leading to the complex, planned for upgrading)
- Vascular plants – CI area + 100 m (additionally, +50 m from the road leading to the complex, planned for upgrading)
- Invertebrates – CI area + 300 m
- Amphibians and reptiles – CI area + 300 m
- Breeding birds – CI area + 300 m
- Migratory birds – farmland bordering with CI area
- Mammals – CI area + 500 m (in forested areas), CI + 100 m (in farmland), additionally +50m from the road leading to the complex, planned for upgrading).

### 2.1.1.3 Data Collection – OMB Port of Ustka

For the purpose of preparation of the EIA, the following data on biodiversity within the planned OMB Port of Ustka were presented in the documents provided by the Investor:

- Fish – Area of Investment (Aol)
  - (q) Breeding birds – Area of Investment (Aol)
  - (r) Non-breeding birds – Aol + adjacent port area (approx. 6 hectares)
  - (s) Plants – Area of Investment (Aol)

Because the Aol is located within an already existing urban industrial area, the spatial extent of the biodiversity data collected was limited, under the assumption that the construction of OMB Port of Ustka will not lead to substantial changes the existing land use – even though the waterway within the port is within PLH220052 Dolina Słupi, the habitats being subject of protection are generally located further upstream, the port channel is strongly anthropogenically modified.

### 2.1.1.4 Area of Impact delineation for habitat delineation maps

In case of habitats (both terrestrial and marine), the Area of Impact of the project was established based on the range of research provided within the Environmental Inventory – i.e. 1 nautical mile for marine habitats potentially impacted by OWF construction, and 100 meters for marine and terrestrial habitats potentially impacted by Connecting Infrastructure construction.

### 2.1.1.5 Habitat delineation maps

After delineation of Area of Impact of the project, habitats present within were divided into the following categories and mapped:

- Natural habitats (marine)
- Natural habitats (terrestrial; listed in Habitat Directive – non-priority)
- Natural habitats (terrestrial; listed in Habitat Directive - priority)
- Modified habitats (terrestrial and freshwater).

The extent of each habitat class within the Area of Impact is summarized in table below.

Table 1 Area of Impact of the Investment divided into habitat categories.

	area (ha)	fraction (%)
Area of Impact	52206.3643	100.0000
<b>Natural habitats (marine)</b>	<b>51869.7519</b>	<b>99.3552</b>
<b>Modified habitats (terrestrial, freshwater)</b>	<b>284.6762</b>	<b>0.5453</b>
<b>Natural habitats listed in Habitat Directive, non-critical (together)</b>	<b>51.9383</b>	<b>0.0995</b>
habitat code: 2120	0.7932	0.0015
habitat code: 2180	43.8868	0.0841
habitat code: 9110	6.0217	0.0115
<b>Natural habitats listed in Habitat Directive, critical (together)</b>	<b>0.5497</b>	<b>0.0011</b>
habitat code: 2130*	0.5497	0.0011
habitat code: 91E0*	0.6870	0.0013

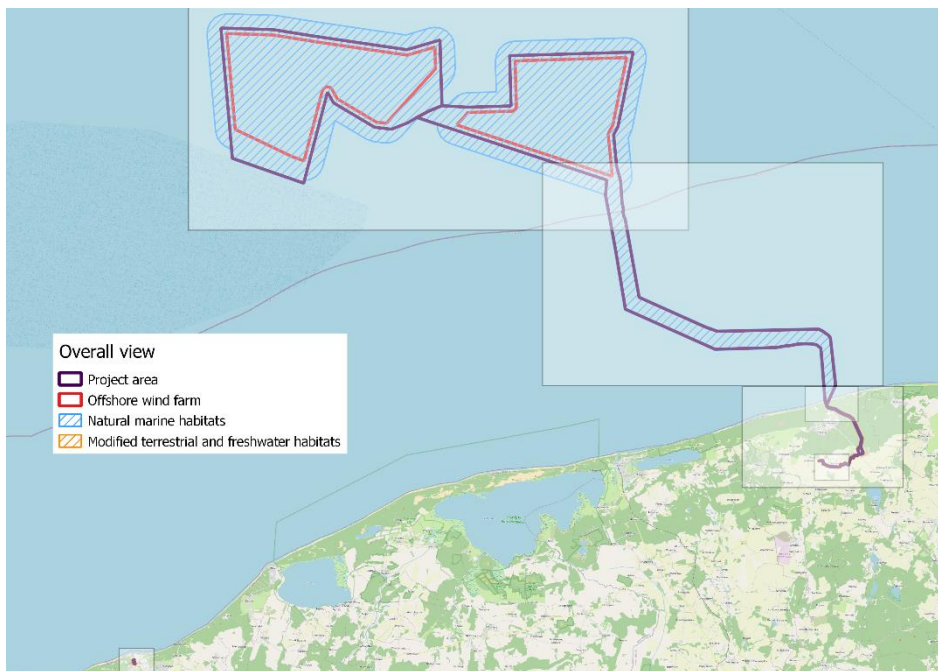


Figure 4 Overall view of the Area of Impact of the whole investment. Rectangles indicate the approximate extent of detailed maps (see below). Basemap: OpenStreetMap contributors.



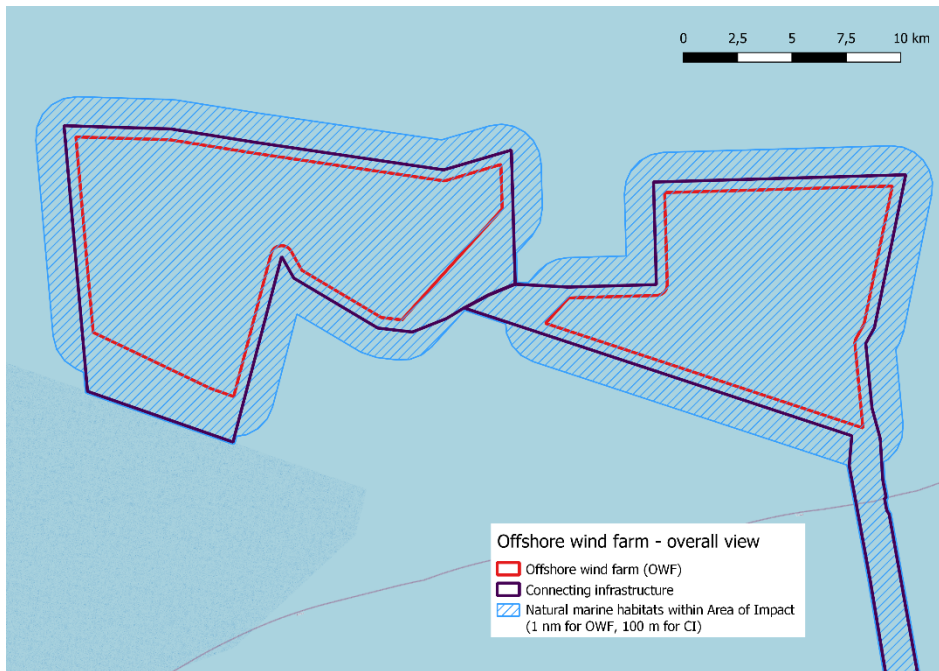


Figure 5 Detailed view of the Area of Impact of the investment concerning Offshore Wind Farm. Basemap: OpenStreetMap contributors.

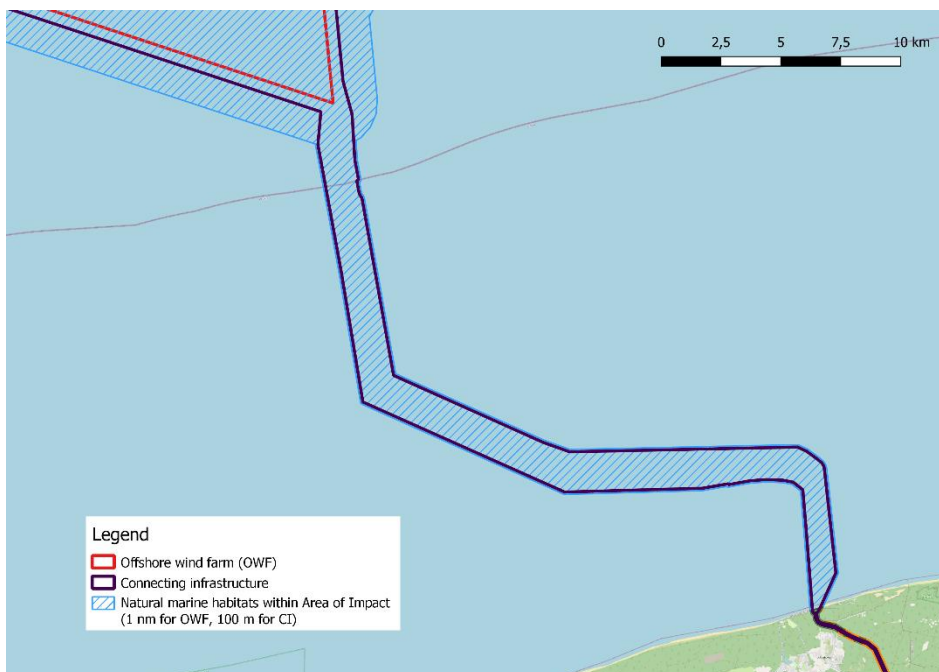


Figure 6 Detailed view of the Area of Impact of the investment concerning Offshore Connecting Infrastructure. Basemap: OpenStreetMap contributors.

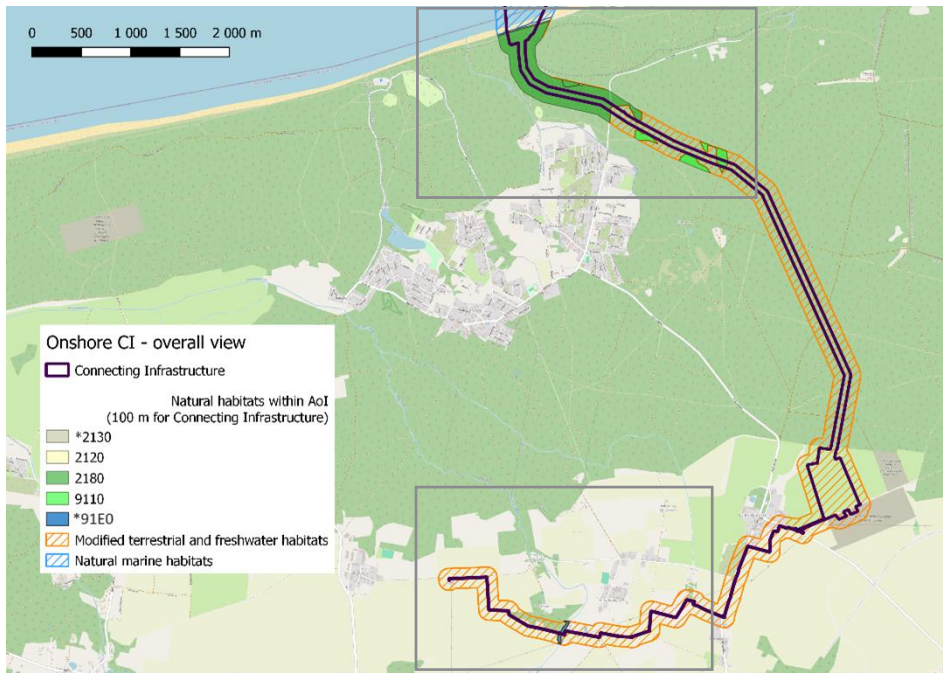


Figure 7 Overall view of the Area of Impact of the investment concerning Onshore Connecting Infrastructure. Rectangles indicate the extent of detailed maps (see below). Basemap: OpenStreetMap contributors.

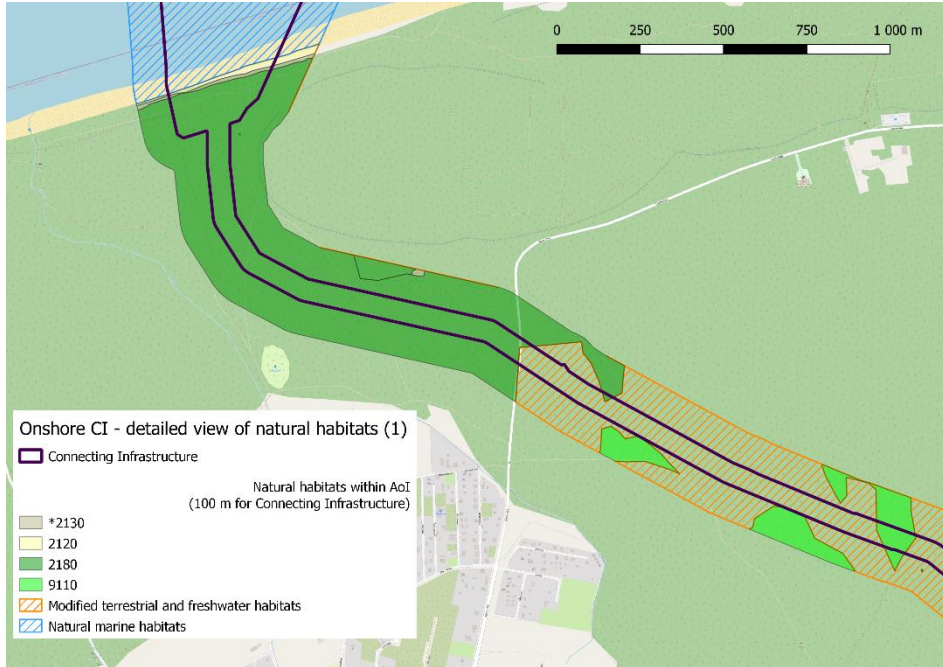


Figure 8 Detailed view of the Area of Impact of the investment concerning Onshore Connecting Infrastructure – part 1. Basemap: OpenStreetMap contributors.

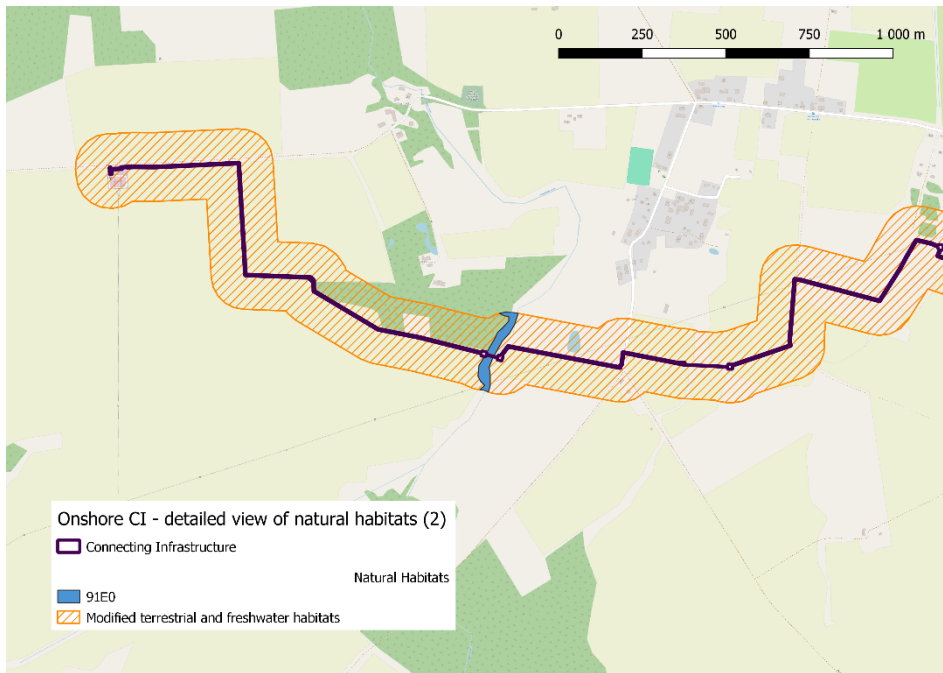


Figure 9 Detailed view of the Area of Impact of the investment concerning Onshore Connecting Infrastructure – part 2. Basemap: OpenStreetMap contributors.

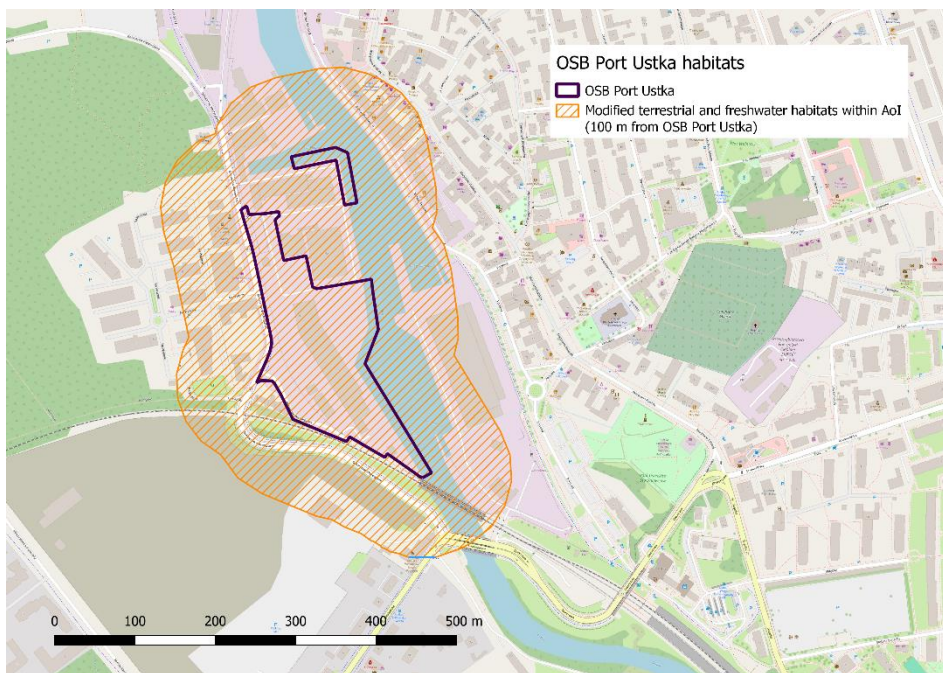


Figure 10 Detailed view of the Area of Impact of the investment concerning Operational and Service Base Port of Ustka. Basemap: OpenStreetMap contributors.



### 2.1.1.6 EAAA determination

EAAA was delineated separately for each species/habitats potentially triggering the Critical Habitat criteria. The criteria for EAAA delineation are presented for each species/habitat, with relevant scientific literature cited (if available). In general, the EAAA should encompass the whole range of the populations impacted by the project (i.e. it should not be limited to the area of impact of the project, where some individuals of a given species are present, but to the whole range of the population to which those individuals belong). However, because of insufficient data, such approach was not always feasible. This is especially important in case of migratory birds and bats, where the EAAAs in theory should encompass the whole migrating populations using southern Baltic Sea or its coast as flyway. If population data were unavailable, the area of the global Extent of Occurrence (EOO) for species were compared with the EAAA to estimate the potential fraction of the population present within the EAAA.

## 2.2 List of internationally, nationally and locally important areas

According to EBRD Guidance Note 6, it is necessary to define and take into consideration any 'Legally Protected and Internationally Recognized Areas of Biodiversity Value'. A protected area is defined as a specific geographic area that is officially recognized, designated, and properly managed through legal or other methods to ensure the preservation of nature, its ecosystems, and cultural significance over an extended period of time. For the purpose of this CHA, the following legally protected Significant Nature Areas were searched for and analyzed within the distance of 50 km from the Area of Investment

- National Parks,
- Nature Reserves,
- Landscape Parks
- Areas of Protected Landscape,
- Natura 2000 areas:
  - Special Areas of Conservation (SAC), and
  - Special Protection Areas (SPA),
- Ramsar Convention Sites,
- UNESCO Natural and Mixed World Heritage Sites/Man and Biosphere objects,
- Important Bird Areas (IBA)
- Important Marine Mammal Areas (IMMA)

## 2.3 List of key evidence documents

In order to prepare this assessment, in-desk studies have been performed which included a review of available scientific literature as well as documents provided by the Client. As recommended for the CHA analysis, an IBAT Report has been also generated (see Appendix 2). The list of crucial documents obtained from the Client used for preparing CHA for OWF Baltica and OMB Port of Ustka is presented below.



- Environmental Impact Assessment (EIA) for development of OWF Baltica, provided by the Maritime Institute in Gdańsk in consortium with MEWO S.A. (Gdańsk 2017) with attachments:
  - *Appendix 3. Transport of suspended sediments within OWF Baltica*
  - *Appendix 4. Assessment of the impact of the Baltica OWF on migratory birds in relation to the barrier effect and the risk of collision on based on model calculations.*
  - *Appendix 14. Characteristics of the most important migrating bird species observed during assessment in the planned OWF area.*
  - *Appendix 15. Summary of flight stream intensity amongst migrating birds.*
- Environmental Decision for OWF Baltica, Regional Directorate of Environmental Protection in Gdańsk (RDOŚ-Gd-WOO.4211.21.2017.MJ.PW.AJ.37, Gdańsk 2020)
- Environmental Impact Assessment (EIA) for development of OWF Baltica Connection Infrastructure, provided by the Maritime Institute in Gdańsk in consortium with MEWO S.A. (Gdańsk 2022)
- Environmental Decision for OWF Baltica – Connection Infrastructure, Regional Directorate of Environmental Protection in Gdańsk (RDOŚ-Gd-WOO.420.47.2021.AJ.31, Gdańsk 2022)
- Project Information Sheet (PIS) for development of OMB Port of Ustka, provided by EKO-MAR Project Bureau in Sopot (Sopot 2023)
- Environmental Decision for OMB Port of Ustka, provided by Regional Directorate of Environmental Protection in Gdańsk (RDOŚ-Gd-WOO.420.34.2023.AJ.10) (Gdańsk 2023)

Chapter 6 presents a list of scientific literature analyzed during preparation of this Critical Habitat Assessment.

### 3 Results

#### 3.1 Significant Nature Areas (with impact analysis)

All protected areas of international, national and regional importance located within 50 km zone around the Area of Investment are presented in the table below. For each area, impact analysis was provided (for species and habitats, impact analysis are provided in separate chapter, i.e. Chapter 5).

Table 2 Protected areas and other Significant Nature Areas located within 50-km buffer zones around Area of Investment (Offshore Wind Farm, Connecting Infrastructure, OMB Port of Ustka). Closest protected areas are shown in bold. Important Bird and Biodiversity Areas (IBAs) are indicated with IBA. Please note that some marine protected areas are listed twice (as SPA as well as SAC).

Range	Name	Main conservation targets	Approximate distance to Area of Investment	Impact analysis
International	Ramsar site Slovincian National Park <sup>IBA</sup>	Wetland habitats of international importance within the Slovincian National Park	10.6 km	<i>(the analysis below is applicable for Ramsar site / Unesco MaB Biosphere Reserve / Slovincian National Park <sup>IBA</sup>, as well as SAP PLB220003 Pobreże Słowińskie)</i>  <b>Indirect impact, mitigated. Site integrity is not to be impacted.</b>
	Unesco MaB Biosphere Reserve Slovincian National Park <sup>IBA</sup>	Protection of coastal aeolian processes and mobile sand dunes which are among the most active and extensive around the Baltic Sea	10.6 km	In case of geographical and landscape features of the protected area (e.g. dunes, marshlands, peatlands) there exist no direct nor indirect impact pathways between the Project and the protected area. As a consequence, <b>no negative impact is anticipated.</b>  There is a potential of <b>indirect impact</b> on populations of migratory birds, using the area as stopover/wintering site and justifying its classification as IBA, which may suffer from collision risk from the parts of the project infrastructure generating bird mortality (OWF). Such species are discussed below.  <ul style="list-style-type: none"> <li>- Smew <i>Mergellus albellus</i> – the species was only occasionally observed migrating through the parts of the project potentially generating bird mortality (OWF), ie. &lt;5 birds/season;</li> <li>- Common crane <i>Grus grus</i> – the species was regularly observed in large numbers migrating through the parts of the project potentially generating bird mortality (OWF); the modelling approach showed that the expected mortality due to collisions with wind turbines is estimated at maximum 10-20 individuals/year. Because the PA holds significantly larger number of individuals on migration (approx. 7,000 birds), such loss is unlikely to have impact on conservation goals of the area (especially that not all birds using the protected area cross the Project Area on their way).</li> <li>- Other waterbirds – although no specific species are indicated in IBA database, the migratory species listed as subject to protection within SDF of the overlapping SPA PLB220003 Pobreże</li> </ul>

Range	Name	Main conservation targets	Approximate distance to Area of Investment	Impact analysis
				<p>Słowińskie that may be affected by the parts of the project potentially generating bird mortality (OWF) are as follows:</p> <ul style="list-style-type: none"> <li>- White-fronted goose <i>Anser albifrons</i>, Tundra goose <i>Anser fabalis</i> – geese (all species pooled) were regularly observed in large numbers migrating through the parts of the project potentially generating bird mortality (OWF); the modelling approach showed that the expected mortality due to collisions with wind turbines is estimated at maximum 10 individuals/year. Because the PA holds significantly larger number of individuals on migration (up to 6,200 birds in case of White-fronted goose, up to 4,500 birds in case of Tundra goose), such loss is unlikely to have impact on conservation goals of the area (especially that not all birds using the protected area cross the Project Area on their way).</li> <li>- Common pochard <i>Aythya ferina</i> – the species was only occasionally observed migrating through the parts of the project potentially generating bird mortality (OWF), ie. &lt;5 birds/season;</li> <li>- Whooper swan <i>Cygnus cygnus</i> - swans (all species pooled) were regularly observed in large numbers migrating through the parts of the project potentially generating bird mortality (OWF); the modelling approach showed that the expected mortality due to collisions with wind turbines is estimated at 1 individual/year. Because the PA holds significantly larger number of Whooper swans on migration, such loss is unlikely to have impact on conservation goals of the area (especially that not all birds using the protected area cross the Project Area on their way).</li> <li>- Goosander <i>Mergus merganser</i> - the species was regularly observed migrating through the parts of the project potentially generating bird mortality (OWF) (&lt;60 birds/season); however, the species exhibits very low collision risk with wind turbines (similarly to other ducks). As a consequence, potential mortality due to the Project is negligible and too low to induce any negative impact on conservation goals of the area (especially that not all birds using the protected area cross the Project Area on their way).</li> <li>- Ruff <i>Philomachus pugnax</i> - the species was only occasionally observed migrating through the parts of the project potentially generating bird mortality (OWF), ie. &lt;10 birds/season;</li> </ul> <p>As a consequence, <b>the bird collision risk assessment does not identify any species that may suffer from turbine-induced mortality to the level that could degrade the ability of the protected area to meet its conservation goals, especially that additional mitigation measures</b></p>

Range	Name	Main conservation targets	Approximate distance to Area of Investment	Impact analysis
	Baltic Proper Important Marine Mammal Area	Harbour porpoise Harbour seal	0.00 km (investment within area)	<p>reducing collision risk are planned to be included within the project (WTG shut down system which will consist of radar and cameras - an automatic shutdown system which will react on birds presence if needed).</p> <p><b>Direct impact (enchroachment), mitigated. Site integrity is not to be impacted.</b></p> <p>The Project directly impacts the IMMA through encroachment, albeit at very limited extent in relation to its overall size (225.57 km<sup>2</sup>, which translates to 0.2% of IMMA).</p> <p>The project may potentially impact one of the species for which the IMMA was created – the Harbour porpoise (the other species, the Harbour seal, is only a rare vagrant in the Polish Baltic Sea (internal marine waters, territorial sea and exclusive economic zone)).</p> <p>The Harbour porpoise is present in the Project area, although its densities (estimated as indexes of acoustic activity detected during passive acoustic monitoring) were very low, therefore the area is not used by a significant part of the population. This is in line with the published data on the species distribution in the Baltic Sea (SAMBAH 2016, ASCOBANS 2016, Carlén et al., 2018). The strongest impact of the Project will be the construction phase, when the high noise levels during piling may be detrimental to the species. However, the impact will still be limited to a temporary reduction of hearing abilities as a result of construction works. This translates to at most 1,7% of the local porpoise population. At this stage, mitigation measures will be also used (soft-start procedure, noise propagation mitigation measures like bubble curtains). Monitoring will be provided during construction (noise monitoring, porpoise acoustic monitoring) as well as after construction (porpoise acoustic monitoring).</p> <p>As a consequence, taking into account low levels of encroachment of the Project in relation to the whole extent of IMMA, low abundance of Harbour porpoise in the Project area, and mitigation measures planned, <b>it is unlikely that the Project will have significant adverse impact on conservation goals of Baltic Proper IMMA.</b></p>
European (NATURA2000 Special Protection Areas – birds)	PLB990002 Przybrzeżne wody Bałtyku <sup>IBA</sup>	Long-tailed duck Velvet scoter Black guillemot Other migrating and wintering seabirds	0.00 km (investment within area)	<p><b>Direct impact (enchroachment), mitigated. Site integrity is not to be impacted.</b></p> <p>The Project directly impacts the SPA through encroachment, albeit at very limited extent in relation to its overall size (34.25 km<sup>2</sup>, which translates to 1.75% of SPA).</p> <p>The part of the Project that encroaches the SPA is offshore CI – as a consequence, no structures potentially causing bird collisions will be constructed</p>

Range	Name	Main conservation targets	Approximate distance to Area of Investment	Impact analysis
				<p>within the SPA. As a consequence, the potential impact is limited to construction phase (vessel movement, offshore construction works), when seabirds present in the area may be disturbed. However, the area is already used by vessel traffic, and therefore the temporary change in traffic intensity is not likely to be significant, especially in the context of the entire SPA.</p> <p>In the long term, after finishing the construction phase, no negative impact is anticipated, as zoobenthic communities around the undersea cable will recover relatively quickly (up to a few years, possibly even earlier).</p> <p>As a consequence, taking into account low levels of encroachment of the Project in relation to the whole extent of SPA and only temporary impacts on seabird communities (limited to construction phase), <b>it is unlikely that the Project will have significant adverse impact on conservation goals of SPA PLB990002 Przybrzeżne wody Bałtyku<sup>IBA</sup>.</b></p>
	PLC990001 Ławica Słupska <sup>IBA</sup>	Sandbanks (habitat code 1110) Reefs (habitat code 1170) Long-tailed duck Velvet scoter Black guillemot Black-throated loon Red-throated loon	<b>0.01 km (investment bordering with area)</b>	<p><b>Indirect impact, mitigated. Site integrity is not to be impacted.</b></p> <p>The Project does not directly encroach the SPA/SAC; however, offshore CI will be located very close to the boundaries of the SPA, while the OWF turbines will be located at least 2 km from the boundaries of the SPA/SAC (mitigation requirement imposed by the Environmental Decision).</p> <p>In case of all bird species being subject to conservation within the SPA/SAC, those are species strongly avoiding operating OWFs, which translates to very low collision rates with existing infrastructure. As a consequence, the impact on the SPA/SAC in terms of potential mortality of birds migrating towards the area is negligible, especially that additional mitigation measures reducing collision risk are planned to be included within the project (WTG shut down system which will consist of radar and cameras - an automatic shutdown system which will react on birds presence if needed).</p> <p>On the other hand, strong avoidance of the operating OWFs will lead to changes in the bird distribution in the Area of the Project, and will translate to decreased abundance of seabirds within the OWF and in the 2-km zone around it (Petersen et al., 2006; Dierschke et al., 2016), while the densities of seabirds within SPA/SAC are likely to increase. However, it is not likely to have a measurable negative impact on the conservation goals of the SPA, as habitat conditions within are unlikely to deteriorate (see below), and</p>

Range	Name	Main conservation targets	Approximate distance to Area of Investment	Impact analysis
				<p>potential energetic costs for birds are unlikely to be measurable.</p> <p>The presence of the OWF in vicinity of the SPA has may potentially strongly alter the migration routes of species species being subjects of conservation within the SPA/SAC, potentially hindering their movement to and from the SPA/SAC. However, this effect will be mitigated by keeping a 5-km wide, open corridor between two subunits of the OWF (i.e. Baltica 2, Baltica 3). The corridor should enable birds to migrate freely to the area along the NW-SW axis, which is a main direction of migration by the species using the SPA/SAC as migration stopover as well as wintering site.</p> <p>The construction works performed for the Project may have a temporary impact (displacement) on seabird being subject to conservation within SPA (noise, vessel movement). However, the effect will be temporary, and potentially most adverse procedures (piling, ie. noise pollution) will not be performed between 1st November and 30th April, to avoid disturbing wintering/migrating birds. In the same period of time, vessels engaged in construction works are prevented from entering SPA/SAC to avoid disturbance on migrating/wintering birds.</p> <p>In case of habitats (reefs and sandbanks) being subject to conservation within the SPA/SAC, there is a potential of indirect impact caused by resuspension the the bottom sediments during construction works of the OWF (piling), followed by increases sedimentation, potentially negatively affecting undersea benthic communities that form such habitats. However, modelling of underwater transport of sediments suspended during underwater construction works indicates that for distances over 2 km, the negative impact is low, i.e. the thickness of additional sediment layer is below 0,5 mm. As a consequence, because of the mitigation measures in place (ie. 2-km buffer zone from constructed wind turbines to the boundaries of the SPA/SAC) it is unlikely that the Project will have a measurable, adverse impact on the SPA/SAC in the context of conservation of benthic habitats (reefs and sanbanks).</p> <p>As a consequence, <b>the completion of the project, despite providing indirect impacts on the SPA/SAC, is unlikely to have significant adverse impact on conservation goals of SPA/SAC PLC990001 Ławica Słupska</b> <sup>IBA</sup>.</p>
	PLB220008 Lasy Mirachowskie <sup>IBA</sup>	Common goldeneye Boreal owl	4.9 km	<p><b>Negligible impact. Site integrity is not to be impacted.</b></p> <p>The Project does not encroach this protected area.</p>

Range	Name	Main conservation targets	Approximate distance to Area of Investment	Impact analysis
				<p>The species being subject to conservation in the area are not measurably affected by the Project:</p> <ul style="list-style-type: none"> <li>- Common goldeneye was only occasionally observed during bird migration monitoring within planned OWF (4 individuals observed during 2 years of monitoring), therefore there is no potential for indirect impact by potential mortality impacted by offshore wind turbines;</li> <li>- Boreal owl is a sedentary species, i.e. it is unlikely that individuals using the area as their breeding habitat regularly pass through the Area of the Project.</li> </ul> <p><b>As a consequence, it is extremely unlikely that the completion of the project affects the conservation goals of the area in any measurable way.</b></p>
	PLB220006 Lasy Lęborskie	Boreal owl	5.1 km	<p><b>Negligible impact. Site integrity is not to be impacted.</b></p> <p>The Project does not encroach this protected area.</p> <p>The species being subject to conservation in the area are not measurably affected by the Project:</p> <ul style="list-style-type: none"> <li>- Boreal owl is a sedentary species, i.e. it is unlikely that individuals using the area as their breeding habitat regularly pass through the Area of the Project.</li> </ul> <p><b>As a consequence, it is extremely unlikely that the completion of the project affects the conservation goals of the area in any measurable way.</b></p>
	PLB220003 Pobreże Słowińskie <sup>IBA</sup>	Numerous woodland and marshland bird species	13.9 km	<p><i>(the analysis below is applicable for Ramsar site / Unesco MaB Biosphere Reserve / Slovianian National Park<sup>IBA</sup>, as well as SAP PLB220003 Pobreże Słowińskie)</i></p> <p><b>Indirect impact, mitigated. Site integrity is not to be impacted.</b></p> <p>There is a potential of <b>indirect impact</b> on populations of migratory birds, using the area as stopover/wintering site and justifying its classification as IBA, which may suffer from collision risk from the parts of the project infrastructure generating bird mortality (OWF). Such species are discussed below.</p> <ul style="list-style-type: none"> <li>- Smew <i>Mergellus albellus</i> – the species was only occasionally observed migrating through the parts of the project potentially generating bird mortality (OWF), ie. &lt;5 birds/season;</li> <li>- Common crane <i>Grus grus</i> – the species was regularly observed in large numbers migrating through the parts of the project potentially generating bird mortality (OWF); the modelling approach showed that the expected mortality due to collisions with wind turbines is estimated at maximum 10-20 individuals/year. Because the PA holds significantly larger number of</li> </ul>



Range	Name	Main conservation targets	Approximate distance to Area of Investment	Impact analysis
				<p>individuals on migration (approx.. 7,000 birds), such loss is unlikely to have impact on conservation goals of the area (especially that not all birds using the protected area cross the Project Area on their way).</p> <ul style="list-style-type: none"> <li>- Other waterbirds – although no specific species are indicated in IBA database, the migratory species listed as subject to protection within SDF of the overlapping SPA PLB220003 Pobrzeże Słowińskie that may be affected by the parts of the project potentially generating bird mortality (OWF) are as follows:</li> <li>- White-fronted goose <i>Anser albifrons</i>, Tundra goose <i>Anser fabalis</i> – geese (all species pooled) were regularly observed in large numbers migrating through the parts of the project potentially generating bird mortality (OWF); the modelling approach showed that the expected mortality due to collisions with wind turbines is estimated at maximum 10 individuals/year. Because the PA holds significantly larger number of individuals on migration (up to 6,200 birds in case of White-fronted goose, up to 4,500 birds in case of Tundra goose), such loss is unlikely to have impact on conservation goals of the area (especially that not all birds using the protected area cross the Project Area on their way).</li> <li>- Common pochard <i>Aythya ferina</i> – the species was only occasionally observed migrating through the parts of the project potentially generating bird mortality (OWF), ie. &lt;5 birds/season;</li> <li>- Whooper swan <i>Cygnus cygnus</i> - swans (all species pooled) were regularly observed in large numbers migrating through the parts of the project potentially generating bird mortality (OWF); the modelling approach showed that the expected mortality due to collisions with wind turbines is estimated at 1 individual/year. Because the PA holds significantly larger number of Whooper swans on migration, such loss is unlikely to have impact on conservation goals of the area (especially that not all birds using the protected area cross the Project Area on their way).</li> <li>- Goosander <i>Mergus merganser</i> - the species was regularly observed migrating through the parts of the project potentially generating bird mortality (OWF) (&lt;60 birds/season); however, the species exhibits very low collision risk with wind turbines (similarly to other ducks). As a consequence, potential mortality due to the Project is negligible and too low to induce any negative impact on conservation goals of the area (especially that not all birds using the protected area cross the Project Area on their way).</li> </ul>



Range	Name	Main conservation targets	Approximate distance to Area of Investment	Impact analysis
				<p>- Ruff <i>Philomachus pugnax</i> - the species was only occasionally observed migrating through the parts of the project potentially generating bird mortality (OWF), ie. &lt;10 birds/season;</p> <p>As a consequence, the bird collision risk assessment does not identify any species that may suffer from turbine-induced mortality to the level that could degrade the ability of the protected area to meet its conservation goals, especially that additional mitigation measures reducing collision risk are planned to be included within the project (WTG shut down system which will consist of radar and cameras - an automatic shutdown system which will react on birds presence if needed).</p>
	<p>PLB220010 Bielawskie Błota IBA</p>	<p>Common crane, Wood sandpiper</p>	<p>20.3 km</p>	<p><b>Indirect impact, mitigated. Site integrity is not to be impacted.</b></p> <p>There is a potential of <b>indirect impact</b> on the Common crane, being a subject of conservation in the SPA/IBA, using the area as stopover/wintering site and justifying its classification as IBA, which may suffer from collision risk from the parts of the project infrastructure generating bird mortality (OWF). The species was regularly observed in large numbers migrating through the parts of the project potentially generating bird mortality (OWF); the modelling approach showed that the expected mortality due to collisions with wind turbines is estimated at maximum 10-20 individuals/year. Because the PA holds significantly larger number of individuals on migration (approx.. 3,000 birds), such loss is unlikely to have impact on conservation goals of the area (especially that not all birds using the protected area cross the Project Area on their way).</p> <p>The other species of conservation concern being subject to conservation in the area – a small breeding population of Wood sandpiper – is unlikely to be affected by the Project, as it was only occasionally observed during bird migration monitoring within the planned OWF (13 individuals); additionally, the birds using the area as breeding site are unlikely to be the ones moving across the Baltic Sea towards Scandinavia.</p> <p>As a consequence, <b>the bird collision risk assessment does not identify any species that may suffer from turbine-induced mortality to the level that could degrade the ability of the protected area to meet its conservation goals</b>, especially that additional mitigation measures reducing collision risk are planned to be included within the project (WTG shut down system which will</p>

Range	Name	Main conservation targets	Approximate distance to Area of Investment	Impact analysis
	PLB220007 Puszcza Darżłubska IBA	Boreal owl Red-breasted flycatcher	20.9 km	<p>consist of radar and cameras - an automatic shutdown system which will react on birds presence if needed).</p> <p><b>Negligible impact. Site integrity is not to be impacted.</b></p> <p>The Project does not encroach this protected area.</p> <p>The species being subject to conservation in the area are not measurably affected by the Project:</p> <ul style="list-style-type: none"> <li>- Boreal owl is a sedentary species, i.e. it is unlikely that individuals using the area as their breeding habitat regularly pass through the Area of the Project.</li> <li>- Red-breasted flycatcher is a migratory species that was only occasionally observed during bird migration monitoring within the planned OWF (&lt;5 observations); additionally, the birds using the area as breeding site are unlikely to be the ones moving across the Baltic Sea towards Scandinavia.</li> </ul> <p><b>As a consequence, it is extremely unlikely that the completion of the project affects the conservation goals of the area in any measurable way.</b></p>
	PLB220002 Dolina Słupi IBA	<p>Numerous species of woodland and marshland birds:</p> <ul style="list-style-type: none"> <li>- Common sandpiper</li> <li>- Boreal owl</li> <li>- Kingfisher</li> <li>- Eagle owl</li> <li>- Common goldeneye</li> <li>- Whooper swan</li> <li>- Little owl</li> <li>- Common crane (migrating)</li> <li>- Common crane (breeding)</li> <li>- European sea eagle</li> <li>- Goosander</li> <li>- Red kite</li> <li>-</li> </ul>	21.3 km	<p><b>Indirect impact, mitigated. Site integrity is not to be impacted.</b></p> <p>The Project does not encroach this protected area.</p> <p>However, there is a potential of indirect impact on populations of migratory birds, using the area as stopover site, and as such being subject to protection in the SPA. The only such species is the Common crane. The species was regularly observed in large numbers migrating through the parts of the project potentially generating bird mortality (OWF); the modelling approach showed that the expected mortality due to collisions with wind turbines is estimated at maximum 10-20 individuals/year. Because the PA holds significantly larger number of individuals on migration (approx.. 1,300 birds), such loss is unlikely to have impact on conservation goals of the area (especially that not all birds using the protected area cross the Project Area on their way).</p> <p>The other species of conservation concern being subject to conservation in this SPA/IBA are the species breeding in the area – such species are unlikely to be affected by the project, which is located in the north of the SPA/IBA, i.e. does not cross with the migration routes of individuals breeding in the area.</p> <p><b>As a consequence, the bird collision risk assessment does not identify any species that may suffer from turbine-induced mortality to the</b></p>

Range	Name	Main conservation targets	Approximate distance to Area of Investment	Impact analysis
				<p><b>level that could degrade the ability of the protected area to meet its conservation goals,</b> especially that additional mitigation measures reducing collision risk are planned to be included within the project (WTG shut down system which will consist of radar and cameras - an automatic shutdown system which will react on birds presence if needed).</p>
	<p>PLB220005 Zatoka Pucka <sup>IBA</sup></p>	<p>Numerous species of marine and marshland birds (only migrating/wintering species are listed below)</p> <ul style="list-style-type: none"> <li>- Razorbill</li> <li>- Grey heron</li> <li>- Tufted duck</li> <li>- Greater scaup</li> <li>- Common goldeneye</li> <li>- Dunlin</li> <li>- Long-tailed duck</li> <li>- Whooper swan</li> <li>- Mute swan</li> <li>- Eurasian coot</li> <li>- Oystercatcher</li> <li>- Velvet scoter</li> <li>- Smew</li> <li>- Goosander</li> <li>- Red-breasted merganser</li> <li>- Eurasian curlew</li> <li>- Great cormorant</li> <li>- Horned grebe</li> <li>- Great crested grebe</li> </ul>	<p>31.3 km</p>	<p><b>Indirect impact, mitigated. Site integrity is not to be impacted.</b></p> <p>The Project does not encroach this protected area.</p> <p>There is a potential of indirect impact on populations of migratory birds, using the area as stopover/wintering site, and as such being subject to protection in the SPA. However, in all cases the migratory birds being subject to conservation in the SPA were either assessed as not vulnerable to collisions with the planned OWF, with negligible or very low annual mortality rates (e.g. Razorbill, Whooper swan, Mute swan, Velvet scoter, Long-tailed duck, Greater cormorant, Eurasian curlew, other species of ducks) or were observed only occasionally or never within the planned OWF (e.g. Grey heron, Oystercatcher, Dunlin, Smew, grebes).</p> <p>Additionally, because of the large distance between the Area of the Project and the SPA, the potential of any other indirect effects (e.g. displacement of birds) is negligible.</p> <p>As a consequence, <b>the bird collision risk assessment does not identify any species that may suffer from turbine-induced mortality to the level that could degrade the ability of the protected area to meet its conservation goals,</b> especially that additional mitigation measures reducing collision risk are planned to be included within the project (WTG shut down system which will consist of radar and cameras - an automatic shutdown system which will react on birds presence if needed).</p>
	<p>SE0330308 Hoburgs bank och Midsjöbankarna <sup>IBA</sup></p>	<p>Long-tailed duck Black guillemot Eider</p> <p>Harbour porpoise</p> <p>Reefs, sandbanks</p>	<p>40.0 km</p>	<p><b>Indirect impact, mitigated. Site integrity is not to be impacted.</b></p> <p>The Project does not encroach this protected area.</p> <p>There is a potential of indirect impact on populations of migratory birds, using the area as stopover/wintering site, and as such being subject to protection in the SPA. However, in all cases the migratory birds being subject to conservation in the SPA were either assessed as not vulnerable to collisions with the planned OWF, with negligible or very low annual mortality rates (e.g. Long-tailed duck) or were observed only occasionally within the planned OWF (e.g. Black guillemot, Eider). Any potential</p>

Range	Name	Main conservation targets	Approximate distance to Area of Investment	Impact analysis
				<p>displacement of seabirds from the Area of the Project is likely to be on a local scale only, and is unlikely to affect the SPA.</p> <p>Additionally, because of the large distance between the Area of the Project and the SPA, the potential of any other indirect effects (e.g. resuspension of sediment in case of underwater benthic communities like reefs and sandbanks, underwater noise in case of Harbour porpoise) is negligible.</p> <p>As a consequence, <b>the risk assessment does not identify any species that may suffer from turbine-induced mortality/underwater noise/sediment resuspension to the level that could degrade the ability of the protected area to meet its conservation goals</b>, especially that additional mitigation measures reducing collision risk are planned to be included within the project (WTG shut down system which will consist of radar and cameras - an automatic shutdown system which will react on birds presence if needed).</p>
European (NATURA 2000 Special Areas of Conservation - <i>habitats</i> )	PLH220052 Dolina Słupi	River valley with its tributaries, riparian landscape, wetlands, peat marshes, forests (including riparian forests), migratory fish and lampreys etc.	0.0 km (investment partly within area)	<p><b>Direct impact (encroachment), mitigated. Site integrity is not to be impacted.</b></p> <p>The Project directly impacts the SPA through encroachment, albeit at very limited extent in relation to its overall size (0.09 km<sup>2</sup>, which translates to approx. 0.1% of the entire SAC).</p> <p>The part of the Project that encroaches the SPA is OMB Port Ustka, which is located within an urban area. The part of the SAC that is directly affected is the Słupia river mouth, being anthropogenically modified into existing port facility for at least 100 years (i.e. Port of Ustka). The remaining area of SAC is located further inland, upstream along Słupia river and its main tributaries, up to over 50 km from the Project Area. As a consequence, the risk of measurable negative impacts of the Project on species and habitat located further upstream is negligible.</p> <p>The Project has the potential to impact only 2 species being subject to conservation in the area, i.e. Atlantic Salmon and European river lamprey. These 2 species use the encroached part of SAC as a part of their migratory corridor towards breeding grounds located further upstream (tens of kilometres inland). The Project may potentially affect the species during construction phase (increased suspension of sediment, decreased oxygen levels, artificial light at night, noise). However, such impact will be mitigated by timing (underwater construction works causing noise will be performed outside migration season; artificial light reduced during migration season) and</p>

Range	Name	Main conservation targets	Approximate distance to Area of Investment	Impact analysis
				<p>technology of works (real-time oxygen level monitoring during underwater construction).</p> <p>As a consequence, taking into account low levels of encroachment of the Project in relation to the whole extent of SAC, as well as mitigation measures planned for the only two species potentially affected, <b>it is unlikely that the Project will have significant adverse impact on conservation goals of SAC PLH220052 Dolina Słupi.</b></p>
	PLC990001 Ławica Słupska	<p>Sandbanks (habitat code 1110)</p> <p>Reefs (habitat code 1170)</p> <p>Long-tailed duck Velvet scoter Black guillemot Black-throated loon Red-throated loon</p>	0.01 km (investment bordering with area)	<p><b>Indirect impact, mitigated. Site integrity is not to be impacted.</b></p> <p>The Project does not directly encroach the SPA/SAC; however, offshore CI will be located very close to the boundaries of the SPA, while the OWF turbines will be located at least 2 km from the boundaries of the SPA/SAC (mitigation requirement imposed by the Environmental Decision).</p> <p>In case of all bird species being subject to conservation within the SPA/SAC, those are species strongly avoiding operating OWFs, which translates to very low collision rates with existing infrastructure. As a consequence, the impact on the SPA/SAC in terms of potential mortality of birds migrating towards the area is negligible, especially that additional mitigation measures reducing collision risk will be provided within the project. The Investor plans to implement WTG shut down system which will consist of radar and cameras. It will be an automatic shutdown system which will react on birds presence if needed. More information will be provided in BA.</p> <p>On the other hand, strong avoidance of the operating OWFs will lead to changes in the bird distribution in the Area of the Project, and will translate to decreased abundance of seabirds within the OWF and in the 2-km zone around it (Petersen et al., 2006; Dierschke et al., 2016), while the densities of seabirds within SPA/SAC are likely to increase. However, it is not likely to have a measurable negative impact on the conservation goals of the SPA, as habitat conditions within are unlikely to deteriorate (see below), and potential energetic costs for birds are unlikely to be measurable.</p> <p>The presence of the OWF in vicinity of the SPA has may potentially strongly alter the migration routes of species species being subjects of conservation within the SPA/SAC, potentially hindering their movement to and from the SPA/SAC. However, this effect will be mitigated by keeping a 5-km wide, open corridor between two subunits of the OWF (i.e. Baltica 2, Baltica 3). The corridor should enable birds to migrate freely to the area along the NW-SW axis, which is a main direction of migration by the species using the</p>

Range	Name	Main conservation targets	Approximate distance to Area of Investment	Impact analysis
				<p>SPA/SAC as migration stopover as well as wintering site.</p> <p>The construction works performed for the Project may have a temporary impact (displacement) on seabird being subject to conservation within SPA (noise, vessel movement). However, the effect will be temporary, and potentially most adverse procedures (piling, ie. noise pollution) will not be performed between 1st November and 30th April, to avoid disturbing wintering/migrating birds. In the same period of time, vessels engaged in construction works are prevented from entering SPA/SAC to avoid disturbance on migrating/wintering birds.</p> <p>In case of habitats (reefs and sandbanks) being subject to conservation within the SPA/SAC, there is a potential of indirect impact caused by resuspension the the bottom sediments during construction works of the OWF (piling), followed by increases sedimentation, potentially negatively affecting undersea benthic communities that form such habitats. However, modelling of underwater transport of sediments suspended during underwater construction works indicates that for distances over 2 km, the negative impact is low, i.e. the thickness of additional sediment layer is below 0,5 mm. As a consequence, because of the mitigation measures in place (ie. 2-km buffer zone from constructed wind turbines to the boundariues of the SPA/SAC) it is unlikely that the Project will have a measurable, adverse impact on the SPA/SAC in the context of conservation of benthic habitats (reefs and sanbanks).</p> <p>As a consequence, <b>the completion of the project, despite providing indirect impacts on the SPA/SAC, is unlikely to have significant adverse impact on conservation goals of SPA/SAC PLC990001 Ławica Słupska</b> <sup>IBA</sup>.</p>
	PLH220003 Białogóra	Dune and marshland habitats	1.1 km	<p><b>Negligible impact. Site integrity is not to be impacted.</b></p> <p>The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b></p>
	PLH220096 Jeziora Choczewskie	Lobelia lakes	2.1 km	<p><b>Negligible impact. Site integrity is not to be impacted.</b></p> <p>The Project does not encroach within the area, and there are no impact pathways between the Project</p>

Range	Name	Main conservation targets	Approximate distance to Area of Investment	Impact analysis
				and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	PLH220100 Klify Poddębskie	Cliffs, dunes, coastal habitats	4.4 km	<p><b>Negligible impact. Site integrity is not to be impacted.</b></p> <p>The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b></p>
	PLH220024 Przymorskie Błota	Coastal, dune, wetland habitats	4.5 km	<p><b>Negligible impact. Site integrity is not to be impacted.</b></p> <p>The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b></p>
	PLH220018 Mierzeja Sarbska	Dune, marshland, brackish and freshwater habitats	5.2 km	<p><b>Negligible impact. Site integrity is not to be impacted.</b></p> <p>The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b></p>
	PLH320068 Jezioro Wicko i Modelskie Wydmy	Coastal, dune, wetland habitats	5.9 km	<p><b>Negligible impact. Site integrity is not to be impacted.</b></p> <p>The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on</b></p>



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				the conservation goals of this protected area are anticipated.
	PLH220021 Piaśnickie Łąki	Coastal, wetland, peatland, dune, meadow, broadleaf forest and oxbow lake habitats	8.1 km	<p><b>Negligible impact. Site integrity is not to be impacted.</b></p> <p>The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b></p>
	PLH220099 Opalińskie Buczyny	Freshwater springs, beech forests	12.1 km	<p><b>Negligible impact. Site integrity is not to be impacted.</b></p> <p>The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b></p>
	PLH220054 Widowo	Dune and coastal forest habitats	13.2 km	<p><b>Negligible impact. Site integrity is not to be impacted.</b></p> <p>The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b></p>
	PLH220023 Ostoja Słowińska	Numerous types of coastal and wetland habitats	14.7 km	<p><b>Negligible impact. Site integrity is not to be impacted.</b></p> <p>The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b></p>



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	PLH220038 Dolina Wieprzy i Studnicy	Riparian habitats, lobeia lakes, peat marsh habitats, forests	15.8 km	<p><b>Negligible impact. Site integrity is not to be impacted.</b></p> <p>The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b></p>
	PLH220029 Trzy Młyny	Numerous wetland habitats (including freshwater springs), forest habitats	16.3 km	<p><b>Negligible impact. Site integrity is not to be impacted.</b></p> <p>The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b></p>
	PLH220036 Dolina Łupawy	Riparian habitats, riparian forests, peat marsh habitats, lakes	19.3 km	<p><b>Negligible impact. Site integrity is not to be impacted.</b></p> <p>The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b></p>
	PLH220019 Orle	Peatland habitats	19.4 km	<p><b>Negligible impact. Site integrity is not to be impacted.</b></p> <p>The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b></p>
	PLH220063 Bielawa i Bory Bażynowe	Peatland habitats	19.9 km	<p><b>Negligible impact. Site integrity is not to be impacted.</b></p> <p>The Project does not encroach within the area, and there are no impact pathways between the Project</p>

Range	Name	Main conservation targets	Approximate distance to Area of Investment	Impact analysis
				and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	PLH220045 Górkowski Las	Forest and peatland habitats	20.8 km	<p><b>Negligible impact. Site integrity is not to be impacted.</b></p> <p>The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b></p>
	PLH320059 Jezioro Kopań	Coastal lake – wetland habitats	24.3 km	<p><b>Negligible impact. Site integrity is not to be impacted.</b></p> <p>The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b></p>
	PLH220040 Łebskie Bagna	Marshland habitats	24.9 km	<p><b>Negligible impact. Site integrity is not to be impacted.</b></p> <p>The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b></p>
	PLH220072 Kaszubskie Klify	Coastal habitats - cliffs	25.1 km	<p><b>Negligible impact. Site integrity is not to be impacted.</b></p> <p>The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on</b></p>

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				the conservation goals of this protected area are anticipated.
	PLH220006 Dolina Górnej Łęby	Riparian habitats	25.9 km	<p><b>Negligible impact. Site integrity is not to be impacted.</b></p> <p>The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b></p>
	PLH220042 Torfowisko Pobłockie	Peatland habitats	27.5 km	<p><b>Negligible impact. Site integrity is not to be impacted.</b></p> <p>The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b></p>
	PLH220001 Bagna Izbickie	Peatland habitats	28.4 km	<p><b>Negligible impact. Site integrity is not to be impacted.</b></p> <p>The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b></p>
	PLH220084 Wejherowo	Greater mouse-eared bat	28.8 km	<p><b>Negligible impact. Site integrity is not to be impacted.</b></p> <p>The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b></p>

Range	Name	Main conservation targets	Approximate distance to Area of Investment	Impact analysis
	PLH220016 Biała	Woodland habitats, peatland habitats	30.3 km	<p><b>Negligible impact. Site integrity is not to be impacted.</b></p> <p>The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b></p>
	PLH220002 Białe Błoto	Peatland habitats	30.9 km	<p><b>Negligible impact. Site integrity is not to be impacted.</b></p> <p>The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b></p>
	PLH220032 Zatoka Pucka i Półwysep Helski <sup>IBA</sup>	Coastal habitats, dunes, cliffs, woodlands, meadows	32.4 km	<p><b>Negligible impact. Site integrity is not to be impacted.</b></p> <p>The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b></p>
	PLH320016 Słowińskie Błoto	Peatland habitats	32.7 km	<p><b>Negligible impact. Site integrity is not to be impacted.</b></p> <p>The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b></p>
	PLH220020 Pełcznica	Lobelia lakes, peatland habitats, woodland habitats	33.6 km	<p><b>Negligible impact. Site integrity is not to be impacted.</b></p> <p>The Project does not encroach within the area, and there are no impact pathways between the Project</p>

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				and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	PLH220102 Bezlist koło Gniewowa	Green shield-moss <i>Buxbaumia viridis</i>	34.2 km	<b>Negligible impact. Site integrity is not to be impacted.</b>  The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	PLH320008 Janiewickie Bagno	Petland habitats	35.2 km	<b>Negligible impact. Site integrity is not to be impacted.</b>  The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	PLH220075 Mechowiska Zęblewskie	Marshland habitats	36.4 km	<b>Negligible impact. Site integrity is not to be impacted.</b>  The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	PLH220071 Karwickie Źródłiska	Freshwater springs, woodland habitats	37.3 km	<b>Negligible impact. Site integrity is not to be impacted.</b>  The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on</b>

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				the conservation goals of this protected area are anticipated.
	PLH220014 Kurze Grzędy	Woodland, wetland, peatland habitats	37.7 km	<p><b>Negligible impact. Site integrity is not to be impacted.</b></p> <p>The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b></p>
	PLH320003 Dolina Grabowej	Riparian, woodland, wetland habitats, freshwater springs	39.3 km	<p><b>Negligible impact. Site integrity is not to be impacted.</b></p> <p>The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b></p>
SE0330308 Hoburgs bank och Midsjöbankarna <sup>IBA</sup>	<p>Long-tailed duck Black guillemot Eider</p> <p>Harbour porpoise</p> <p>Reefs, sandbanks</p>	40.0 km	<p><b>Indirect impact, negligible. Site integrity is not to be impacted.</b></p> <p>The Project does not encroach this protected area.</p> <p>There is a potential of indirect impact on populations of migratory birds, using the area as stopover/wintering site, and as such being subject to protection in the SPA. However, in all cases the migratory birds being subject to conservation in the SPA were either assessed as not vulnerable to collisions with the planned OWF, with negligible or very low annual mortality rates (e.g. Long-tailed duck) or were observed only occasionally within the planned OWF (e.g. Black guillemot, Eider). Any potential displacement of seabirds from the Area of the Project is likely to be on a local scale only, and is unlikely to affect the SPA.</p> <p>Additionally, because of the large distance between the Area of the Project and the SPA, the potential of any other indirect effects (e.g. resuspension of sediment in case of underwater benthic communities like reefs and sandbanks, underwater noise in case of Harbour porpoise) is negligible.</p> <p>As a consequence, <b>the risk assessment does not identify any species that may suffer from turbine-</b></p>	

Range	Name	Main conservation targets	Approximate distance to Area of Investment	Impact analysis
				<b>induced mortality/underwater noise/sediment resuspension to the level that could degrade the ability of the protected area to meet its conservation goals.</b>
	PLH320053 Dolina Bielawy	Riparian habitats	40.3 km	<p><b>Negligible impact. Site integrity is not to be impacted.</b></p> <p>The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b></p>
	PLH320041 Jezioro Bukowo	Coastal, wetland, woodland habitats	41.6 km	<p><b>Negligible impact. Site integrity is not to be impacted.</b></p> <p>The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b></p>
	PLH220027 Staniszewskie Błoto	Peatland habitats	42.1 km	<p><b>Negligible impact. Site integrity is not to be impacted.</b></p> <p>The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b></p>
	PLH220085 Torfowisko Trzebielino	Peatland habitats	44.6 km	<p><b>Negligible impact. Site integrity is not to be impacted.</b></p> <p>The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b></p>

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	PLH220080 Prokowo	Swamp minnow, wetland and woodland habitats	46.1 km	<p><b>Negligible impact. Site integrity is not to be impacted.</b></p> <p>The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b></p>
National	Slovincian National Park <sup>IBA</sup> (Stowiński National Park) <sup>IBA</sup>	Coastal, dune, marshland, forest and freshwater habitats. The Park is also an UNESCO Biosphere Reserve as well as a Ramsar site (see above)	10.6 km	<p><i>(the analysis below is applicable for Ramsar site / Unesco MaB Biosphere Reserve / Slovincian National Park <sup>IBA</sup>, as well as SAP PLB220003 Pobrzeże Stowińskie)</i></p> <p><b>Indirect impact, mitigated. Site integrity is not to be impacted.</b></p> <p>In case of geographical and landscape features of the protected area (e.g. dunes, marshlands, peatlands) there exist no direct nor indirect impact pathways between the Project and the protected area. As a consequence, no negative impact is anticipated.</p> <p>There is a potential of indirect impact on populations of migratory birds, using the area as stopover/wintering site and justifying its classification as IBA, which may suffer from collision risk from the parts of the project infrastructure generating bird mortality (OWF). Such species are discussed below.</p> <ul style="list-style-type: none"> <li>- Smew <i>Mergellus albellus</i> – the species was only occasionally observed migrating through the parts of the project potentially generating bird mortality (OWF), ie. &lt;5 birds/season;</li> <li>- Common crane <i>Grus grus</i> – the species was regularly observed in large numbers migrating through the parts of the project potentially generating bird mortality (OWF); the modelling approach showed that the expected mortality due to collisions with wind turbines is estimated at maximum 10-20 individuals/year. Because the PA holds significantly larger number of individuals on migration (approx.. 7,000 birds), such loss is unlikely to have impact on conservation goals of the area (especially that not all birds using the protected area cross the Project Area on their way).</li> <li>- Other waterbirds – although no specific species are indicated in IBA database, the migratory species listed as subject to protection within SDF of the overlapping SPA PLB220003 Pobrzeże Stowińskie that may be affected by the parts of the project potentially generating bird mortality (OWF) are as follows:</li> </ul>



Range	Name	Main conservation targets	Approximate distance to Area of Investment	Impact analysis
				<ul style="list-style-type: none"> <li>- White-fronted goose <i>Anser albifrons</i>, Tundra goose <i>Anser fabalis</i> – geese (all species pooled) were regularly observed in large numbers migrating through the parts of the project potentially generating bird mortality (OWF); the modelling approach showed that the expected mortality due to collisions with wind turbines is estimated at maximum 10 individuals/year. Because the PA holds significantly larger number of individuals on migration (up to 6,200 birds in case of White-fronted goose, up to 4,500 birds in case of Tundra goose), such loss is unlikely to have impact on conservation goals of the area (especially that not all birds using the protected area cross the Project Area on their way).</li> <li>- Common pochard <i>Aythya ferina</i> – the species was only occasionally observed migrating through the parts of the project potentially generating bird mortality (OWF), ie. &lt;5 birds/season;</li> <li>- Whooper swan <i>Cygnus cygnus</i> - swans (all species pooled) were regularly observed in large numbers migrating through the parts of the project potentially generating bird mortality (OWF); the modelling approach showed that the expected mortality due to collisions with wind turbines is estimated at 1 individual/year. Because the PA holds significantly larger number of Whooper swans on migration, such loss is unlikely to have impact on conservation goals of the area (especially that not all birds using the protected area cross the Project Area on their way).</li> <li>- Goosander <i>Mergus merganser</i> - the species was regularly observed migrating through the parts of the project potentially generating bird mortality (OWF) (&lt;60 birds/season); however, the species exhibits very low collision risk with wind turbines (similarly to other ducks). As a consequence, potential mortality due to the Project is negligible and too low to induce any negative impact on conservation goals of the area (especially that not all birds using the protected area cross the Project Area on their way).</li> <li>- Ruff <i>Philomachus pugnax</i> - the species was only occasionally observed migrating through the parts of the project potentially generating bird mortality (OWF), ie. &lt;10 birds/season;</li> </ul> <p>As a consequence, <b>the bird collision risk assessment does not identify any species that may suffer from turbine-induced mortality to the level that could degrade the ability of the protected area to meet its conservation goals</b>, especially that additional mitigation measures reducing collision risk are planned to be included within the project (WTG shut down system which will consist of radar and cameras - an automatic</p>

Range	Name	Main conservation targets	Approximate distance to Area of Investment	Impact analysis
				shutdown system which will react on birds presence if needed).
Regional (nature reserves)	Buczyna nad Słupią	Old-growth lowland beech forest (Galio odorati-Fagetum)	2.4 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	Babnica	Dunes, coastal habitats	3.9 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	Jeziro Modła - otulina	Buffer zone for Jeziro Modła nature reserve	4.4 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	Jeziro Modła	Eutrophic lake, wetland birds	4.7 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	Borkowskie Wąwozy	Postglacial landscape, freshwater springs	5.6 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential

Range	Name	Main conservation targets	Approximate distance to Area of Investment	Impact analysis
				for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	Borkowskie Wąwozy - otulina	Buffer zone for Borkowskie Wąwozy nature reserve	5.6 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	Choczewskie Cisy	European yew	5.9 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	Białogóra	Dune and marshland habitats	6.1 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	Zaleskie Bagna (woj. pomorskie)	Peat marsh habitat	7.6 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>

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	Długosz Królewski w Wierzchucinie	Royal fern	8.5 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	Torfowisko Pobłockie	Peatland habitats	8.7 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	Zaleskie Bagna	Peat marsh habitat	8.9 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	Mierzeja Sarbska	Coastal and wetland habitats	9.6 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	Piaśnickie Łąki	Coastal, wetland, peatland, dune, meadow, broadleaf forest and oxbow lake habitats	12.1 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on</b>

Range	Name	Main conservation targets	Approximate distance to Area of Investment	Impact analysis
				the conservation goals of this protected area are anticipated.
	Pużycie Łęgi - otulina	Buffer zone for Pużycie Łęgi nature reserve	12.8 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	Pużycie Łęgi	Riparian forests, freshwater springs	13.3 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	Widowo	Dune and coastal forest habitats	14.6 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	Zielone - otulina	Buffer zone for Zielone nature reserve	14.6 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	Zielone	European honeysuckle	14.7 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential

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				for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	Długosz Królewski w Łęczynie	Royal fern	15.6 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	Źródlika Czarnej Wody	Freshwater springs	17.5 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	Źródlika Czarnej Wody - otulina	Buffer zone for Źródlika Czarnej Wody nature reserve	17.5 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	Nowe Wicko - otulina	Buffer zone for Nowe Wicko nature reserve	18.6 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>



Range	Name	Main conservation targets	Approximate distance to Area of Investment	Impact analysis
	Nowe Wicko	Peatland, wetland, woodland habitats	18.7 km	<p><b>Negligible impact.</b></p> <p>The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b></p>
	Bielawa	Peatland habitats	20.2 km	<p><b>Negligible impact.</b></p> <p>The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b></p>
	Wielistowskie Źródlika	Freshwater springs	20.9 km	<p><b>Negligible impact.</b></p> <p>The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b></p>
	Wielistowskie Łęgi	Freshwater springs, riparian habitats	21.1 km	<p><b>Negligible impact.</b></p> <p>The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b></p>
	Las Górkowski	Peatland habitats, woodland habitats	21.6 km	<p><b>Negligible impact.</b></p> <p>The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on</b></p>

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				the conservation goals of this protected area are anticipated.
	Paraszyńskie Wąwozy	Peatland habitats, woodland habitats	23.8 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	Bagna Izbickie - otulina	Buffer zone for Bagna Izbickie nature reserve	24.3 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	Darzlubskie Buki	Old-growth beech forest	24.4 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	Darzlubskie Buki - otulina	Buffer zone for Darzlubskie Buki nature reserve	24.4 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	Łebskie Bagno	Peatland habitats	25.1 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential

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	Łebskie Bagno - otulina	Buffer zone for Łebskie Bagno nature reserve	25.1 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	Sławieńskie Dęby	Old-growth oak forest	26.7 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	Torfowisko Pobłockie - otulina	Buffer zone for Torfowisko Pobłockie nature reserve	26.8 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	Bagna Izbickie	Peatland habitats	28.1 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>

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	Jałowce	Old-growth aggregation of common junipers	28.1 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	Torfowisko Pobłockie	Peatland habitats	28.7 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	Dolina Chłapowska - otulina	Buffer zone for Dolina Chłapowska nature reserve	29.0 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	Dolina Chłapowska	Coastal habitats	29.1 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	Przylądek Rozewski - otulina	Buffer zone for Przylądek Rozewski nature reserve	29.3 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>

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				the conservation goals of this protected area are anticipated.
	Przylądek Rozewski	Coastal habitats	29.4 km	<p><b>Negligible impact.</b></p> <p>The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b></p>
	Gałęźna Góra	Woodland habitats (beech and riparian forests)	30.2 km	<p><b>Negligible impact.</b></p> <p>The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b></p>
	Lewice	Peatland habitats	30.5 km	<p><b>Negligible impact.</b></p> <p>The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b></p>
	Słone Łąki - otulina	Buffer zone for Słone Łąki nature reserve	32.5 km	<p><b>Negligible impact.</b></p> <p>The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b></p>
	Słone Łąki	Saline meadows	32.6 km	<p><b>Negligible impact.</b></p> <p>The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential</p>

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	Słowińskie Błota	Peatland habitats	32.8 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	Czarne Bagno	Peatland habitats	33.5 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	Pełcznica	Lobelia lakes, peatland habitats, woodland habitats	33.8 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	Janiewickie Bagno	Peatland habitats	35.1 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>



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	Beka - otulina	Buffer zone for Beka nature reserve	36.1 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	Źródłiskowe Torfowisko	Peatland habitats, freshwater springs	37.1 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	Źródłiskowe Torfowisko - otulina	Buffer zone for Źródłiskowe Torfowisko nature reserve	37.1 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	Beka	Riparian habitats, coastal habitats	37.4 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	Źurawie Błota	Peatland habitats, lobelia lakes	37.8 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>

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				<b>the conservation goals of this protected area are anticipated.</b>
	Szczelina Lechicka	Woodland habitats (old-growth beech forest – <i>Galio odorati-fagetum</i> ), wetlands	37.9 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	Karwickie Źródłiska - otulina	Buffer zone for Karwickie Źródłiska nature reserve	38.0 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	Karwickie Źródłiska	Freshwater springs	38.1 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	Lubygość	Woodland habitats (old-growth beech forest – <i>Galio odorati-fagetum</i> ), wetlands	38.9 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	Grodzisko Runowo	Woodland habitats, archeological artefacts	39.0 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As

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				a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	Torfowisko Zielin Miastecki	Peatland habitats	39.1 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	Cisowa	Woodland habitats	40.0 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	Kurze Grzędy	Woodland, wetland, peatland habitats	40.4 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	Źródliśka Biegały	Freshwater springs	40.7 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	Mechelińskie Łąki - otulina	Buffer zone for Mechelińskie Łąki nature reserve	41.1 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project

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				and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	Mechelińskie Łąki	Wetlands, saline meadows	41.2 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	Jezioro Turzycowe	Peatland habitats	41.6 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	Staniszewskie Zdroje - otulina	Buffer zone for Staniszewskie Zdroje nature reserve	42.0 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	Staniszewskie Zdroje	Woodland and riparian habitats	42.3 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>

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	Gogolewko - otulina	Buffer zone for Gogolewko nature reserve	43.5 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	Staniszewskie Błoto	Peatland habitats	44.0 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	Dolina Huczka	Riparian and woodland habitats, archeological artefacts	44.3 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	Dolina Huczka - otulina	Buffer zone for Dolina Huczka nature reserve	44.3 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	Gogolewko	Peatland habitats	44.5 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on</b>

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	Leśne Oczko	Peatland habitats	45.1 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	Torfowisko Potoczek - otulina	Buffer zone for Torfowisko Potoczek nature reserve	45.2 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	Torfowisko Potoczek	Peatland habitats	46.5 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	Żurawie Chrusty	Peatland habitats	47.2 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	Jodły Karnieszewickie	Old-growth silver fir forest, rich bryophyte flora	47.6 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential



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	Żurawie Chrusty - otulina	Buffer zone for Żurawie Chrusty nature reserve	47.7 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	Wieleń	Woodland habitats (old-growth beech forest)	47.9 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	Sieciemieńskie Rosiczki	Peatland habitats	48.6 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	Sieciemieńskie Rosiczki - otulina	Buffer zone for Sieciemieńskie Rosiczki nature reserve	48.6 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	Łazy	Peatland habitats	49.1 km	<b>Negligible impact.</b>

Range	Name	Main conservation targets	Approximate distance to Area of Investment	Impact analysis
				The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	Kacze Łęgi	Old-growth riparian forest	49.5 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
Regional (Landscape Parks)	Nadmorski Park Krajobrazowy - otulina	Buffer zone for Nadmorski Landscape Park	<b>0 km (investment within area)</b>	<b>Direct impact (encroachment), negligible.</b> The Project directly impacts the buffer zone of Nadmorski Landscape Park through encroachment, albeit at very limited extent in relation to its overall size (0.34 km <sup>2</sup> , which translates to 0.2% of the entire buffer zone of Nadmorski Landscape Park). Importantly, parts of the Project that have significant impact on integrity of local landscapes are located outside the buffer zone of Nadmorski Landscape Park (OWF; power substation being part of the onshore CI). As a consequence, the only impact on the landscapes within the buffer zone of Nadmorski Landscape Park is a linear, deforested area along the underground cable being part of onshore CI. As a consequence, <b>the impact on conservation goals of the area (ie. coastal landscapes) is only negligible, especially when the relatively very small area of encroachment within the buffer zone of Nadmorski LP is considered.</b>
	Nadmorski Park Krajobrazowy	Coastal landscapes	4.6 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>

Range	Name	Main conservation targets	Approximate distance to Area of Investment	Impact analysis
	Park Krajobrazowy Dolina Słupi	Riparian, woodland and cultural landscapes	21.3 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	Park Krajobrazowy Dolina Słupi - otulina	Buffer zone for Dolina Słupi Landscape Park	24.6 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	Trójmiejski Park Krajobrazowy - otulina	Buffer zone for Trójmiejski Landscape Park	25.6 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	Trójmiejski Park Krajobrazowy	Postglacial, woodland, wetland, cultural landscapes	28.4 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	Kaszubski Park Krajobrazowy - otulina	Buffer zone for Kaszubski Landscape Park	33.5 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on</b>

Range	Name	Main conservation targets	Approximate distance to Area of Investment	Impact analysis
				the conservation goals of this protected area are anticipated.
	Kaszubski Park Krajobrazowy	Postglacial, woodland, wetland, cultural landscapes	33.7 km	<p><b>Negligible impact.</b></p> <p>The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b></p>
Regional (Areas of Protected Landscape)	Nadmorski	Coastal landscapes	0.0 km (investment within area)	<p><b>Direct impact (encroachment), negligible.</b></p> <p>The Project directly impacts the Nadmorski Area of Protected Landscape through encroachment, albeit at very limited extent in relation to its overall size (0.44 km<sup>2</sup>, which translates to 0.4% of the Nadmorski APL).</p> <p>Importantly, parts of the Project that have significant impact on integrity of local landscapes are located outside the APL (OWF; power substation being part of the onshore CI). As a consequence, the only impact on the landscapes within the APL is a linear, deforested area along the underground cable being part of onshore CI. As a consequence, <b>the impact on conservation goals of the area (ie. coastal landscapes) is only negligible, especially when the relatively very small area of encroachment within the Nadmorski APL is considered.</b></p>
	Pas Pobreża na Zachód od Ustki	Coastal landscapes	1.8 km	<p><b>Negligible impact.</b></p> <p>The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b></p>
	Choczewsko-Saliński	Woodland and lobelia lake landscapes	2.2 km	<p><b>Negligible impact.</b></p> <p>The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on</b></p>

Range	Name	Main conservation targets	Approximate distance to Area of Investment	Impact analysis
				the conservation goals of this protected area are anticipated.
	Pas Pobreża na Wschód od Ustki	Coastal landscapes	2.2 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	Puszczy Darżlubskiej	Woodland landscapes	15.3 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	Pradoliny Redy-Łeby	Postglacial landscapes, woodland landscapes, meadows and cultural landscapes	15.4 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	Bielawski	Woodland and peatland landscapes	18.6 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	Doliny Rzeki Płutnicy	Riparian landscapes	18.7 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential

Range	Name	Main conservation targets	Approximate distance to Area of Investment	Impact analysis
				for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	Obszar Chronionego Krajobrazu Wzgórz Łęborskich	Postglacial landscapes, woodland landscapes	21.9 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	Koszaliński Pas Nadmorski	Coastal landscapes	24.5 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	Doliny Łeby	Riparian landscapes, cultural landscapes	25.2 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	Jezioro Łętowskie i Okolice Kępic	Postglacial and wetland landscapes	32.2 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>

Range	Name	Main conservation targets	Approximate distance to Area of Investment	Impact analysis
	Jezioro Łętowskie oraz okolice Kępic (woj. zachodniopomorskie)	Postglacial and wetland landscapes	32.2 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	Gowidliński	Lakeland landscape with lobelia lakes	40.2 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	Okolice Polanowa	Woodland landscapes, postglacial landscapes	47.5 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>
	Pas Pobreża na zachód od Ustki (woj. zachodniopomorskie)	Coastal landscapes	9.2 km	<b>Negligible impact.</b> The Project does not encroach within the area, and there are no impact pathways between the Project and the protected area (which excludes the potential for indirect effects; importantly, conservation goals of the area do not include migratory species of birds). As a consequence, <b>no measurable adverse impact on the conservation goals of this protected area are anticipated.</b>



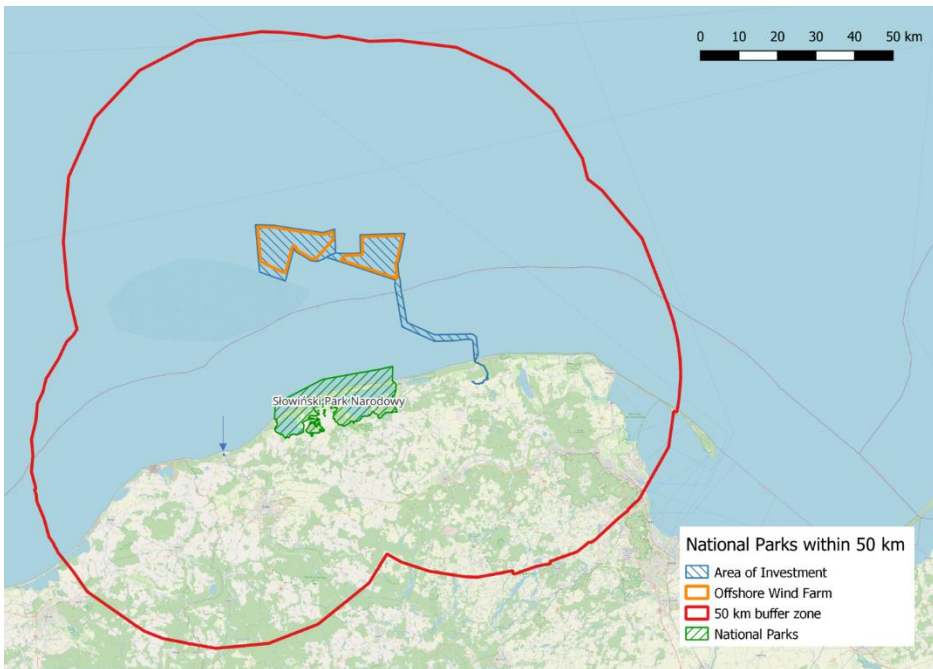


Figure 11 Natural Parks, Ramsar sites and Unesco Man and Biosphere Reserves within 50 km from the Area of Investment. Please note that Slovincian National Park (Słowiński Park Narodowy) is classified under all 3 categories. Blue arrow indicates the location of OMB Port of Ustka. Source: Geoserwis GDOŚ. Basemap: OpenStreetMap contributors.

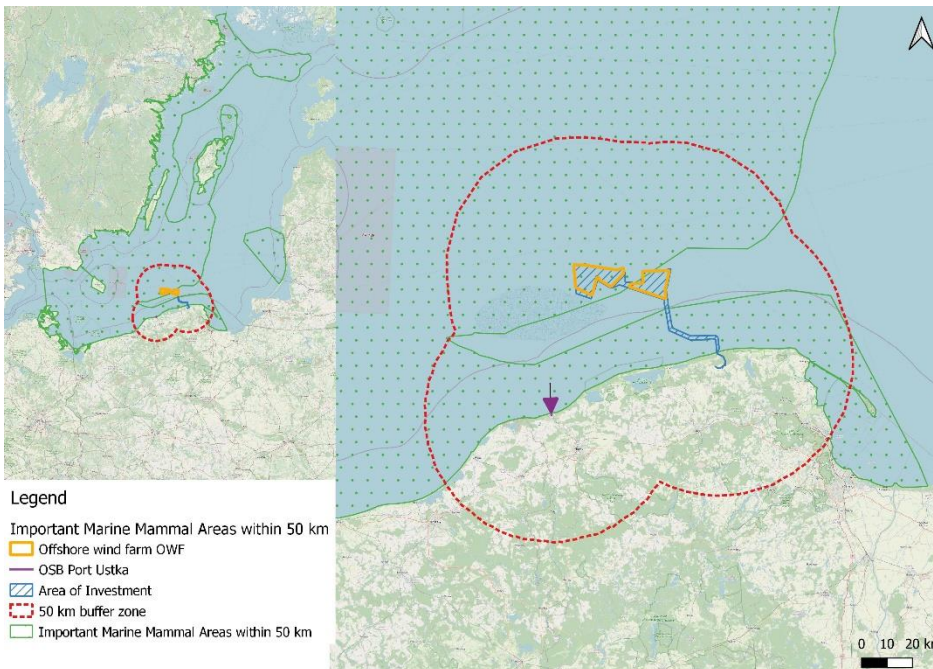


Figure 12 Overall view of Important Marine Mammal Area – Baltic Proper, as well as its boundaries within 50 km from the Area of Investment. Blue arrow indicates the location of OMB Port of Ustka. Source: Geoserwis GDOŚ. Basemap: OpenStreetMap contributors.

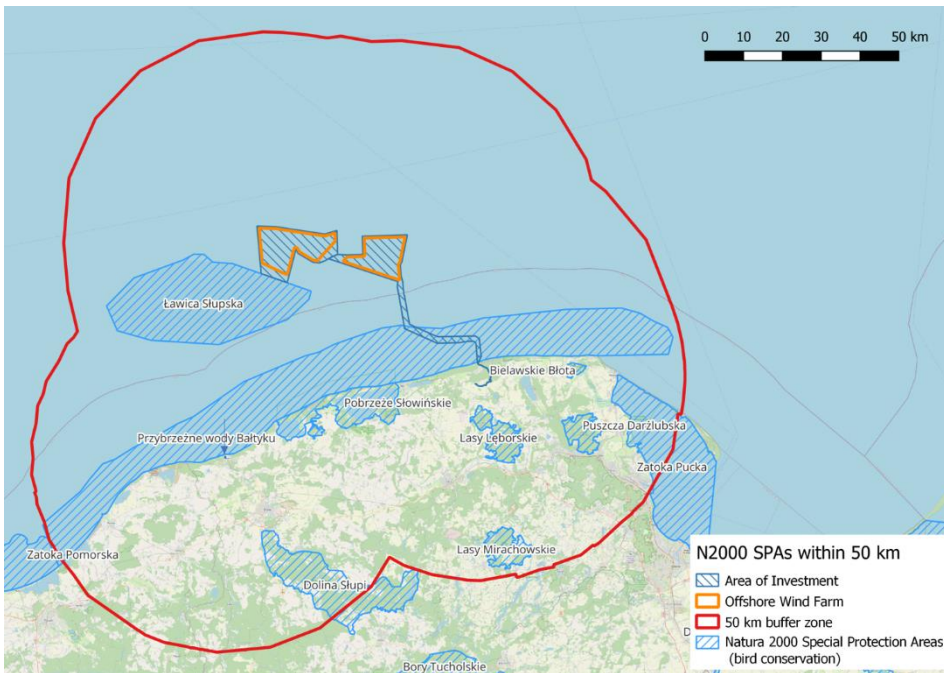


Figure 13 NATURA 2000 Special Protection Areas (bird conservation) within 50 km from the Area of Investment. Please note that PLC990001 Ławica Słupska is classified as both SPA and SAC. Blue arrow indicates the location of OMB Port of Ustka Source: Geoserwis GDOŚ. Basemap: OpenStreetMap contributors.

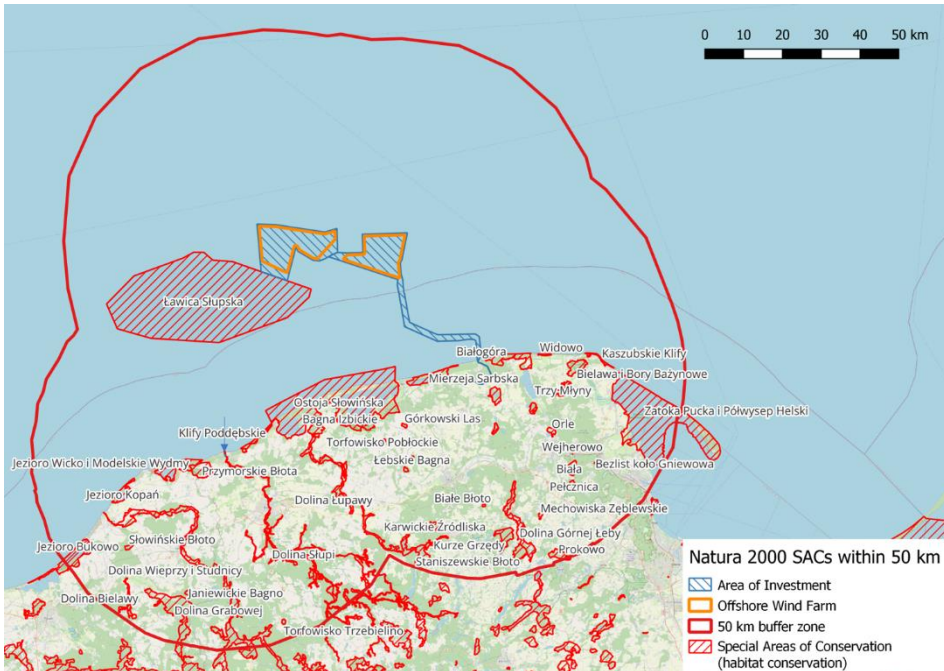


Figure 14 NATURA 2000 Special Areas of Conservation (habitat conservation) within 50 km from the Area of Investment. Please note that PLC990001 Ławica Słupska is classified as both SPA and SAC. Blue arrow indicates the location of OMB Port of Ustka Source: Geoserwis GDOŚ. Basemap: OpenStreetMap contributors.

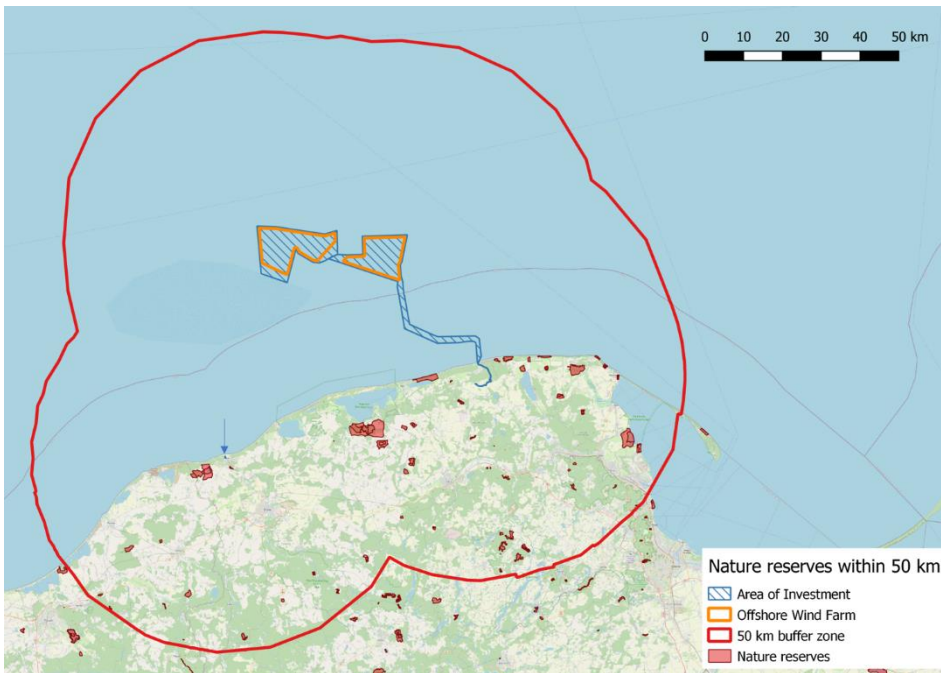


Figure 15 Nature reserves within 50 km from the Area of Investment. Blue arrow indicates the location of OMB Port of Ustka Source: Geoserwis GDOŚ. Basemap: OpenStreetMap contributors.

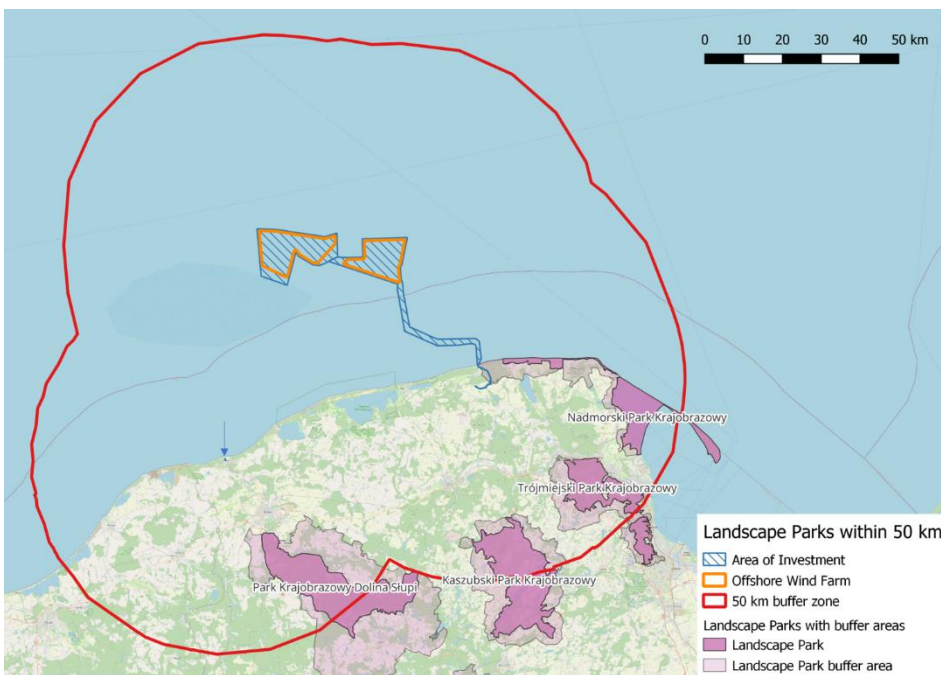


Figure 16 Landscape Parks and their buffer areas within 50 km from the Area of Investment. Blue arrow indicates the location of OMB Port of Ustka Source: Geoserwis GDOŚ. Basemap: OpenStreetMap contributors.



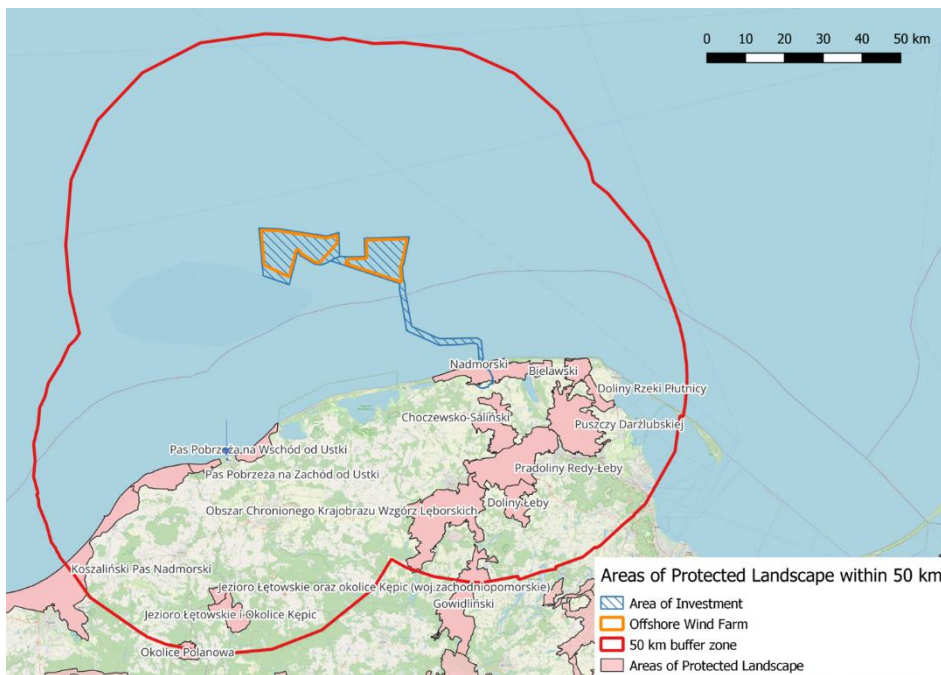


Figure 17 Areas of Protected Landscape within 50 km from the Area of Investment. Blue arrow indicates the location of OMB Port of Ustka Source: Geoserwis GDOŚ. Basemap: OpenStreetMap contributors.

## 3.2 Critical Habitat Assessment

### 3.2.1 Criterion 1. Critically Endangered (CR) and/or Endangered (EN) species

The table of assessed species is provided in a separate spreadsheet due to its large size (**Appendix 1, sheet “Threatened species”**).

### 3.2.2 Criterion 2. Endemic or restricted-range species

The Baltic Sea and its shores are relatively young ecosystems, existing in its current ecological state for only about 5,000 years from present – earlier, it used to be alternatively a freshwater lake and brackish sea, preceded by being completely covered by Scandinavian ice sheet. This very recent history of major changes in ecological conditions leads to a relatively newly-formed and still impoverished ecosystem that almost entirely lacks endemic/restricted-range species. The only exceptions are species described in recent decades using genetical analyses – the Baltic flounder *Platychtis solemdali* (Momigliano *et al.*, 2018) and a species of brown algae, *Fucus radicans* (Pereyra *et al.*, 2009). However, those endemic species are not actually range-restricted. The Baltic Flounder is found in the central part of the Baltic Sea, mainly north of Öland island up to Åland archipelago and Gulf of Finland, which is at least 130,000 km<sup>2</sup> (thus not triggering the CH criterion 2) (Momigliano *et al.*, 2018). Similarly, *Fucus radicans* is found throughout north-eastern Baltic Sea, north from Estonia including Gulf of Finland and Bothnian Bay, which is at least 120,000 km<sup>2</sup> (Pereyra *et al.*, 2009). None of the species was recorded from the Aol during

environmental surveys conducted for the project. Additionally, the IBAT report did not indicate presence of any endemic or restricted-range species.

### 3.2.3 Criterion 3. Migratory or congregatory species

The table of assessed species is provided in a separate spreadsheet due to its large size (**Appendix 1, sheet “Migratory species”**).

### 3.2.3 Criterion 4. Highly threatened and/or unique ecosystems

The Table below lists all the ecosystems that are subject to protection in Special Areas of Conservation (NATURA2000 SAC) directly and indirectly impacted by the Project (PLH220052 Dolina Słupi, PLC990001 Ławica Słupska).

Table 3 Habitats selected for detailed assessment under Criterion 4.  
 CR – Critically Endangered, EN – endangered, VU – Vulnerable, NT – Near Threatened, LC – Least Concern

Habitat type	Status			Parts of the Investment concerned	Habitat present in the Aol	Conservation context & existing data	EAAA delineation & Critical habitat assessment	CH	PBF
	IUCN Red List/ Regional Red Lists (if available)	EU Directives	Legal status in Poland						
<b>Reefs (EU habitat code: 1170)</b>	<p>not assessed (IUCN)</p> <p>VU (HELCOM Red List of biotopes, habitat and biotope complexes)</p> <p>not assessed [Red List of Natura 2000 Ecosystems of Poland (Perzanowska 2020)]</p>	Habitat Directive Annex I (protected, <b>not priority</b> )	as in EU Habitat directive	OWF	NO	<p>This habitat is present in the north-western part of the neighboring SPA/SAC PLC990001 Ławica Słupska. This is the only locality where the habitat is present within Polish Baltic Sea (internal marine waters, territorial sea and exclusive economic zone). In general, this habitat has experiences very strong quality decline in southern and western Baltic Sea during the last few decades (HELCOM, 2013).</p>	<p>EAAA: for the habitat, EAAA should be considered as entire N2000 SPA/SAC PLC990001 Ławica Słupska, bordering with the Aol, as it functions as one large patch of the habitat, unique in the context of southern Baltic and Polish Baltic Sea (internal marine waters, territorial sea and exclusive economic zone). The area of habitat within SPA is approx. 143 km<sup>2</sup> (=17% of the entire SPA/SAC), located in the north-western part of the protected area (Warzocha 2004a; Barańska et al., 2018); the distance to the Project is at least 18 km. The area of habitat within Baltic Sea is unknown.</p> <p>This habitat is not present within the Aol – it was not found during Environmental Inventory of the OWF as well as offshore CI. One of the reasons is that this habitat is not found deeper than 17 m due to photosynthetic needs of macroalgae (Warzocha 2004a), while 94% of the OWF area is deeper than 30 m (depth range: 20-50 m).</p> <p>Theoretically the patches of habitat within the SPA/SAC may potentially be affected by the Project via impact caused by</p>	NO	NO

							<p>resuspension the bottom sediments during construction works of the OWF (piling), followed by increased sedimentation, potentially negatively affecting benthic algal communities. However, the modelling of underwater transport of sediments suspended during underwater construction works indicates that for distances over 2 km, the negative impact is low, i.e. the thickness of additional sediment layer is below 1,5 mm (which is analogous to natural yearly levels of sedimentation in the area). As a consequence, because of the mitigation measures already in place (ie. at least 2-km buffer zone from constructed wind turbines to the boundaries of the SPA/SAC) it is unlikely that the Project will have a measurable, adverse impact on reef habitats within SPA/SAC, especially that those habitats are located over a considerable distance (18 km), and predominant direction of water currents is likely to distribute the suspended sediment away from, instead of towards, the habitat. Moreover, the buffer zone between the planned OWF and SPA/SAC Ławica Słupska, although originally considered as a potential locality for construction of undersea infrastructure, is not planned to be developed for offshore CI. Other potential threats (ship traffic, underwater noise, invasive species) are also considered unlikely: the habitat is already used by ship traffic, the noise pollution during construction will be only temporary, and it is unlikely that the newly constructed OWFs ('artificial reefs') will act as a stepping stone for the invasive Round goby <i>Neogobius melanostomus</i>, as the species is</p>	
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							not capable of dispersion through the open sea).  As a consequence of the lack of presence of the habitat in the Aol (as well as lack of strong impacts from the Project Area), the habitat does not trigger the Critical Habitat nor the Priority Biodiversity Feature criteria.		
<b>Sandbanks which are slightly covered by sea water all the time (EU habitat code: 1110)</b>	not assessed (IUCN Red List of Ecosystems)  VU (HELCOM Red List of biotopes, habitat and biotope complexes)  not assessed [Red List of Natura 2000 Ecosystems of Poland (Perzanowska 2020)]	Habitat Directive Annex I ( <i>protected, not priority</i> )	as in EU Habitat directive	OWF	NO	This is a dominant habitat within N2000 SPA Ławica Słupska. This is one of the two localities, where the habitat is present within Polish Baltic Sea (internal marine waters, territorial sea and exclusive economic zone) (Warzecha 2004b, Michałek et al. 2018). The habitat is essentially plantless, but is indicated by rich macrobenthic animal communities. One of the key aspects enabling the preservation of this habitat within SPA/SAC Ławica Słupska is low sediment levels, which is caused by its distance from potential sources of pollution.	EAAA: for the habitat, EAAA should be considered as entire N2000 SPA Ławica Słupska, bordering with the Aol, as it functions as one large patch of the habitat, almost unique in the context of southern Baltic and Polish Baltic Sea (internal marine waters, territorial sea and exclusive economic zone). The area of habitat within SPA is approx. 309 km <sup>2</sup> (=38% of the entire SPA/SAC). The area of habitat within Baltic Sea is unknown.  This habitat is not present within the Aol – it was not found during Environmental Inventory of the OWF as well as offshore CI. That is because the definition of the habitat requires that it is located no deeper than 20 m (European Commission, 2013), while 94% of the OWF area is deeper than 30 m (depth range: 20-50 m) – simultaneously, the boundary of SPA/SAC PLC990001 Ławica Słupska simultaneously acts as a boundary of the habitat, as it is placed along the 20 m isobath (as a consequence, the closest patch of habitat is located 2 km from the OWF). In the context of the offshore CI, potential areas <20 m deep are only located	NO	NO

						<p>in the coastal zone, and thus are not considered as habitat 1110 in the national context (Warzecha 2004b, Michałek et al. 2018).</p> <p>Theoretically the patches of habitat within the SPA/SAC may potentially be affected by the Project via impact caused by resuspension the bottom sediments during construction works of the OWF (piling), followed by increased sedimentation, potentially negatively affecting macrozoobenthic communities. However, the modelling of underwater transport of sediments suspended during underwater construction works indicates that for distances over 2 km, the negative impact is low, i.e. the thickness of additional sediment layer is below 1,5 mm (which is analogous to natural yearly levels of sedimentation in the area). As a consequence, because of the mitigation measures already in place (ie. at least 2-km buffer zone from constructed wind turbines to the boundaries of the SPA/SAC) it is unlikely that the Project will have a measurable, adverse impact on sandbank habitats within SPA/SAC, especially that the predominant direction of water currents is likely to distribute the suspended sediment away from, instead of towards, the habitat. Moreover, the buffer zone between the planned OWF and SPA/SAC Ławica Słupska, although originally considered as a potential locality for construction of undersea infrastructure, is not planned to be developed for offshore CI. Other potential threats (ship traffic, underwater noise, invasive species) are also</p>		
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							<p>considered unlikely: the habitat is already used by ship traffic, the noise pollution during construction will be only temporary. As macrozoobenthic habitats characteristic for soft sea bottom are more or less continuously distributed across the Baltic Sea, it is unlikely that the creation of 'artificial reefs' of OWF or linear structures along undersea cable will act as any additional migratory corridors for invasive species.</p> <p>As a consequence of the lack of presence of the habitat in the Aol (as well as lack of strong impacts from the Project Area), the habitat does not trigger the Critical Habitat nor the Priority Biodiversity Feature criteria.</p>		
<p><b>Shifting dunes along the shoreline with <i>Ammophila arenaria</i> ('white dunes') (EU habitat code: 2120)</b></p>	<p>not assessed (IUCN Red List of Ecosystems)</p> <p>CR [Red List of Natura 2000 Ecosystems of Poland (Perzanowska 2020)]</p>	<p>Habitat Directive Annex I (<i>protected, not priority</i>)</p>	<p>as in EU Directive</p>	<p>Onshore CI</p>	<p>YES</p>	<p>This habitat is widespread on Atlantic coasts of Europe, usually forming behind the 'white dune' ecosystem. In general, 717 SPAs were designed for protection of this habitat. This used to be one the the dominant dune habitat along Polish Baltic coast; however, monitoring shows that the only a small minority of sites are in favourable ecological state, and the majority of sites the ecological state steadily declines (GDOŚ 2019)</p>	<p>The EAAA is the whole area of Wydma Lubiatońska, where the habitat is relatively well-preserved and abundant. Both national and regional extent of the habitat has not been assessed. <b>Patches of this habitat are found in the Area of Impact of the investment (see 2.1.5 Habitat Delineation Maps).</b></p> <p>This habitat is listed in Annex I of EU Habitat Directive, which makes it a target of conservation actions (i.e. delineating Special Protection Areas), but was not indicated as priority habitat. As a consequence, it does not trigger the Critical Habitat criterion 4b.</p> <p><b>As the habitat is listed in Annex I of the EU Habitat Directive, it triggers the Priority Biodiversity Feature criterion 1a.</b></p>	<p>NO</p>	<p>YES</p>

<p><b>Fixed coastal dunes with herbaceous vegetation ('grey dunes') (EU habitat code: 2130*)</b></p>	<p>not assessed (IUCN Red List of Ecosystems)</p> <p>EN [Red List of Natura 2000 Ecosystems of Poland (Perzanowska 2020)]</p>	<p>Habitat Directive Annex I (protected, <b>priority</b>)</p>	<p>as in EU Directive</p>	<p>Onshore CI</p>	<p>YES</p>	<p>This habitat is widespread on Atlantic coasts of Europe, usually forming behind the 'white dune' ecosystem. In general, 505 SPAs were designed for protection of this habitat. This one of the dominant dune habitat along Polish Baltic coast; however, monitoring shows that the majority of sites exhibit unfavourable ecological state (U1).</p>	<p>The EAAA is the whole area of Wydma Lubiatowska, where the habitat is relatively well-preserved and abundant. Both national and regional extent of the habitat has not been assessed. <b>Patches of this habitat are found in the Area of Impact of the investment (see 2.1.5 Habitat Delineation Maps).</b></p> <p>This habitat is listed in Annex I of EU Habitat Directive, which makes it a target of conservation actions (i.e. delineating Special Protection Areas), and is indicated as <b>priority habitat. As a consequence, it triggers the Critical Habitat criterion 4b.</b></p> <p><b>As the habitat is listed in Annex I of the EU Habitat Directive, it triggers the Priority Biodiversity Feature criterion 1a.</b></p>	<p>YES</p>	<p>YES</p>
<p><b>Wooded dunes of the Atlantic, Continental and Boreal region (EU habitat code 2180)</b></p>	<p>not assessed (IUCN Red List of Ecosystems)</p> <p>NT [Red List of Natura 2000 Ecosystems of Poland (Perzanowska 2020)]</p>	<p>Habitat Directive Annex I (protected, <b>not priority</b>)</p>	<p>as in EU Directive</p>	<p>Onshore CI</p>	<p>YES</p>	<p>This habitat (in various sub-types) is widespread on European coasts, although original extent was much reduced in the past due to development. 269 SPAs were designed for protection of this habitat.</p> <p>This habitat is widespread along Polish Baltic coast; however, monitoring shows that the habitat in general exhibits unfavourable ecological state (U1).</p>	<p>The EAAA is the whole coastal area of Poland, being the only region at the national scale where the habitat is present. <b>Patches of this habitat are found in the Area of Impact of the investment (see 2.1.5 Habitat Delineation Maps).</b></p> <p>This habitat is listed in Annex I of EU Habitat Directive, which makes it a target of conservation actions (i.e. delineating Special Protection Areas), and is not indicated as <b>priority habitat. As a consequence, it does not trigger the Critical Habitat criterion 4b.</b></p> <p><b>As the habitat is listed in Annex I of the EU Habitat Directive, it triggers the Priority Biodiversity Feature criterion 1a.</b></p>	<p>NO</p>	<p>YES</p>

<p><b>Luzulo-Fagetum beech forests (EU habitat code 9110)</b></p>	<p>not assessed (IUCN Red List of Ecosystems)  LC [Red List of Natura 2000 Ecosystems of Poland (Perzanowska 2020)]</p>	<p>Habitat Directive Annex I (protected, <b>not priority</b>)</p>	<p>as in EU Directive</p>	<p>Onshore CI</p>	<p>YES</p>	<p>This habitat (in various sub-types) is widespread in Western Europe. 2774 SPAs were designed for protection of this habitat.</p>	<p>The EAAA is the lowland areas of Poland, where the habitat exists in patches within larger forest complexes. <b>Patches of this habitat are found in the Area of Impact of the investment (see 2.1.5 Habitat Delineation Maps).</b></p> <p>This habitat is listed in Annex I of EU Habitat Directive, which makes it a target of conservation actions (i.e. delineating Special Protection Areas) but not indicated as priority habitat. As a consequence, it does not meet the Critical Habitat criterion 4a.</p> <p><b>As the habitat is listed in Annex I of the EU Habitat Directive, it triggers the criteria of Priority Biodiversity Feature 1a.</b></p>	<p>NO</p>	<p>YES</p>
<p><b>Oligotrophic waters containing very few minerals of sandy plains (<i>Littorelletalia uniflorae</i>) (EU habitat code 3110)</b></p>	<p>not assessed (IUCN Red List of Ecosystems)  VU [Red List of Natura 2000 Ecosystems of Poland (Perzanowska 2020)]</p>	<p>Habitat Directive Annex I (protected, not priority)</p>	<p>as in EU Directive</p>	<p>OMB Port Ustka</p>	<p>NO</p>	<p>Shallow oligotrophic waters with few minerals and base poor, with an aquatic to amphibious low perennial vegetation, in Polish context predominantly associated with Water lobelia <i>Lobelia dortmanna</i>.</p> <p>In total, 67 hectares are found within the EAAA (SAC PLH220052 Dolina Słupia).</p>	<p>The EAAA is neighbouring SAC PLH220052 Dolina Słupia, where the habitat is present in localized lakes with relatively low anthropogenic impact.</p> <p>The EAAA is delineated as such because part of the project (OMB Port Ustka) encroaches the SAC PLH220052 Dolina Słupia. However, it needs to be noted that this part of the Project is located within an urban area at the boundary of the SAC (Port of Ustka=Słupia river mouth). Therefore, impacts on natural habitats for this part of the Project are negligible, because there exist no direct nor indirect impact pathways between the Project and habitat patches located further upstream the Słupia river (note that the SAC extends up to 50 km upstream), especially that the Project is</p>	<p>NO</p>	<p>NO</p>

							located downstream from any of the natural habitats within SAC (which makes potential transmission of waterborne pollutants extremely unlikely).  As a consequence, this habitat is not found within the Aol (although it is found in SAC impacted by a part of the Project, i.e. Port Ustka). As a consequence, it does not trigger the Critical Habitat nor the Priority Biodiversity Feature criteria.		
<b>Hard oligo-mesotrophic waters with benthic vegetation of <i>Chara</i> spp. (EU habitat code 3140)</b>	not assessed (IUCN Red List of Ecosystems)  EN [Red List of Natura 2000 Ecosystems of Poland (Perzanowska 2020)]	Habitat Directive Annex I (protected, not priority)	as in EU Directive	OMB Port Ustka	NO	Lakes and pools with waters fairly rich in dissolved bases (pH often 6-7) very clear. The bottom of these unpolluted water bodies are covered with charophyte, <i>Chara</i> and <i>Nitella</i> , algal carpets.  In total, 0.89 hectares are found within the EAAA (SAC PLH220052 Dolina Słupi).	The EAAA is neighbouring SAC PLH220052 Dolina Słupi, where the habitat is present in localized lakes with relatively low anthropogenic impact.  The EAAA is delineated as such because part of the project (OMB Port Ustka) encroaches the SAC PLH220052 Dolina Słupi. However, it needs to be noted that this part of the Project is located within an urban area at the boundary of the SAC (Port of Ustka=Słupia river mouth). Therefore, impacts on natural habitats for this part of the Project are negligible, because there exist no direct nor indirect impact pathways between the Project and habitat patches located further upstream the Słupia river (note that the SAC extends up to 50 km upstream), especially that the Project is located downstream from any of the natural habitats within SAC (which makes potential transmission of waterborne pollutants extremely unlikely).  However, this habitat is not found within the Aol (although it is found in SAC impacted by	NO	NO

							a part of the Project, i.e. Port Ustka). As a consequence, it does not trigger the Critical Habitat nor the Priority Biodiversity Feature criteria.		
<b>Natural eutrophic lakes with <i>Magnopotamion</i> or <i>Hydrocharition</i>-type vegetation (EU habitat code 3150)</b>	not assessed (IUCN Red List of Ecosystems)  NT [Red List of Natura 2000 Ecosystems of Poland (Perzanowska 2020)]	Habitat Directive Annex I (protected, not priority)	as in EU Directive	OMB Port Ustka	NO	Lakes and ponds with mostly dirty grey to blue-green, more or less turbid, waters, with free-floating surface communities of <i>Hydrocharition</i> or, in deep, open waters, with associations of large pondweeds ( <i>Magnopotamion</i> ).  In total, over 31 hectares are found within the EAAA (SAC PLH220052 Dolina Słupi).	The EAAA is neighbouring SAC PLH220052 Dolina Słupi, where the habitat is relatively widespread in lakes and ponds.  The EAAA is delineated as such because part of the project (OMB Port Ustka) encroaches the SAC PLH220052 Dolina Słupi. However, it needs to be noted that this part of the Project is located within an urban area at the boundary of the SAC (Port of Ustka=Słupia river mouth). Therefore, impacts on natural habitats for this part of the Project are negligible, because there exist no direct nor indirect impact pathways between the Project and habitat patches located further upstream the Słupia river (note that the SAC extends up to 50 km upstream), especially that the Project is located downstream from any of the natural habitats within SAC (which makes potential transmission of waterborne pollutants extremely unlikely).  However, this habitat is not found within the Aol (although it is found in SAC impacted by a part of the Project, i.e. Port Ustka). As a consequence, it does not trigger the Critical	NO	NO



							Habitat nor the Priority Biodiversity Feature criteria.		
<b>Natural dystrophic lakes and ponds (EU habitat code 3160)</b>	not assessed (IUCN Red List of Ecosystems)  NT [Red List of Natura 2000 Ecosystems of Poland (Perzanowska 2020)]	Habitat Directive Annex I (protected, not priority)	as in EU Directive	OMB Port Ustka	NO	<p>Natural lakes and ponds with brown tinted water due to peat and humic acids, generally on peaty soils in bogs or in heaths with natural evolution toward bogs. pH is often low, 3 to 6. Plant communities belong to the order <i>Utricularietalia</i>.</p> <p>In total, over 25 hectares are found within the EAAA (SAC PLH220052 Dolina Słupi).</p>	<p>The EAAA is neighbouring SAC PLH220052 Dolina Słupi, where the habitat is present in lakes and ponds.</p> <p>The EAAA is delineated as such because part of the project (OMB Port Ustka) encroaches the SAC PLH220052 Dolina Słupi. However, it needs to be noted that this part of the Project is located within an urban area at the boundary of the SAC (Port of Ustka=Słupia river mouth). Therefore, impacts on natural habitats for this part of the Project are negligible, because there exist no direct nor indirect impact pathways between the Project and habitat patches located further upstream the Słupia river (note that the SAC extends up to 50 km upstream), especially that the Project is located downstream from any of the natural habitats within SAC (which makes potential transmission of waterborne pollutants extremely unlikely).</p> <p>However, this habitat is not found within the Aol (although it is found in SAC impacted by a part of the Project, i.e. Port Ustka). As a consequence, it does not trigger the Critical</p>	NO	NO

							Habitat nor the Priority Biodiversity Feature criteria.		
<p><b>Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitricho-Batrachion</i> vegetation (EU habitat code 3260)</b></p>	<p>not assessed (IUCN Red List of Ecosystems)</p> <p>NT [Red List of Natura 2000 Ecosystems of Poland (Perzanowska 2020)]</p>	<p>Habitat Directive Annex I (protected, not priority)</p>	<p>as in EU Directive</p>	<p>OMB Port Ustka</p>	<p>NO</p>	<p>Water courses of plain to montane levels, with submerged or floating vegetation of <i>Ranunculion fluitantis</i>.</p> <p>In total, over 342 hectares are found within the EAAA (SAC PLH220052 Dolina Słupia).</p>	<p>The EAAA is neighbouring SAC PLH220052 Dolina Słupia, where the habitat is present in river Słupia.</p> <p>The EAAA is delineated as such because part of the project (OMB Port Ustka) encroaches the SAC PLH220052 Dolina Słupia. However, it needs to be noted that this part of the Project is located within an urban area at the boundary of the SAC (Port of Ustka=Słupia river mouth). Therefore, impacts on natural habitats for this part of the Project are negligible, because there exist no direct nor indirect impact pathways between the Project and habitat patches located further upstream the Słupia river (note that the SAC extends up to 50 km upstream), especially that the Project is located downstream from any of the natural habitats within SAC (which makes potential transmission of waterborne pollutants extremely unlikely).</p> <p>However, this habitat is not found within the Aol (although it is found in SAC impacted by a part of the Project, i.e. Port Ustka). As a consequence, it does not trigger the Critical</p>	<p>NO</p>	<p>NO</p>

							Habitat nor the Priority Biodiversity Feature criteria.		
<b>Xeric sand calcareous grasslands (EU habitat code 6120)</b>	not assessed (IUCN Red List of Ecosystems)  EN [Red List of Natura 2000 Ecosystems of Poland (Perzanowska 2020)]	Habitat Directive Annex I (protected, <b>priority</b> )	as in EU Directive	OMB Port Ustka	NO	<p>Dry, frequently open grasslands on more or less calciferous sand with a subcontinental centre of distribution (<i>Koelerion glaucae</i>, <i>Sileno conicae-Cerastion semidecandri</i>, <i>Sedo-Cerastion</i>).</p> <p>In total, only over 2 hectares are found within the EAAA (SAC PLH220052 Dolina Słupi).</p>	<p>The EAAA is neighbouring SAC PLH220052 Dolina Słupi, where the habitat is present in few small patches.</p> <p>The EAAA is delineated as such because part of the project (OMB Port Ustka) encroaches the SAC PLH220052 Dolina Słupi. However, it needs to be noted that this part of the Project is located within an urban area at the boundary of the SAC (Port of Ustka=Słupia river mouth). Therefore, impacts on natural habitats for this part of the Project are negligible, because there exist no direct nor indirect impact pathways between the Project and habitat patches located further upstream the Słupia river (note that the SAC extends up to 50 km upstream), especially that the Project is located downstream from any of the natural habitats within SAC (which makes potential transmission of waterborne pollutants extremely unlikely).</p> <p>However, this habitat is not found within the Aol (although it is found in SAC impacted by a part of the Project, i.e. Port Ustka). As a consequence, it does not trigger the Critical Habitat nor the Priority Biodiversity Feature criteria.</p>	NO	NO

<p><b>Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels (EU habitat code 6430)</b></p>	<p>not assessed (IUCN Red List of Ecosystems)</p> <p>NT [Red List of Natura 2000 Ecosystems of Poland (Perzanowska 2020)]</p>	<p>Habitat Directive Annex I (protected, not priority)</p>	<p>as in EU Directive</p>	<p>OMB Port Ustka</p>	<p>NO</p>	<p>Wet and nitrophilous tall herb edge communities, along water courses and woodland borders belonging to the <i>Glechometalia hederaceae</i> and the <i>Convolvuletalia sepium orders</i> (<i>Senecion fluviatilis</i>, <i>Aegopodion podagrariae</i>, <i>Convolvulion sepium</i>, <i>Filipendulion</i>).</p> <p>In total, over 46 hectares are found within the EAAA (SAC PLH220052 Dolina Słupi).</p>	<p>The EAAA is neighbouring SAC PLH220052 Dolina Słupi, where the habitat is present in along the rivers in relatively natural landscapes.</p> <p>The EAAA is delineated as such because part of the project (OMB Port Ustka) encroaches the SAC PLH220052 Dolina Słupi. However, it needs to be noted that this part of the Project is located within an urban area at the boundary of the SAC (Port of Ustka=Słupia river mouth). Therefore, impacts on natural habitats for this part of the Project are negligible, because there exist no direct nor indirect impact pathways between the Project and habitat patches located further upstream the Słupia river (note that the SAC extends up to 50 km upstream), especially that the Project is located downstream from any of the natural habitats within SAC (which makes potential transmission of waterborne pollutants extremely unlikely).</p> <p>However, this habitat is not found within the Aol (although it is found in SAC impacted by a part of the Project, i.e. Port Ustka). As a consequence, it does not trigger the Critical Habitat nor the Priority Biodiversity Feature criteria.</p>	<p>NO</p>	<p>NO</p>
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<p><b>Lowland hay meadows (<i>Alopecurus pratensis</i>, <i>Sanguisorba officinalis</i>) (EU habitat code 6510)</b></p>	<p>not assessed (IUCN Red List of Ecosystems)</p> <p>NT [Red List of Natura 2000 Ecosystems of Poland (Perzanowska 2020)]</p>	<p>Habitat Directive Annex I (protected, not priority)</p>	<p>as in EU Directive</p>	<p>OMB Port Ustka</p>	<p>NO</p>	<p>Species-rich hay meadows on little to moderately fertilised soils of the plain to submontane levels, belonging to the <i>Arrhenatherion</i> and the <i>Brachypodio-Centaureion nemoralis</i> alliances. These extensive grasslands are rich in flowers and are not reaped before flowering of the grasses, only one or two times per year.</p> <p>In total, over 127 hectares are found within the EAAA (SAC PLH220052 Dolina Słupi).</p>	<p>The EAAA is neighbouring SAC PLH220052 Dolina Słupi, where the habitat is present in farming landscapes in the river valley.</p> <p>The EAAA is delineated as such because part of the project (OMB Port Ustka) encroaches the SAC PLH220052 Dolina Słupi. However, it needs to be noted that this part of the Project is located within an urban area at the boundary of the SAC (Port of Ustka=Słupia river mouth). Therefore, impacts on natural habitats for this part of the Project are negligible, because there exist no direct nor indirect impact pathways between the Project and habitat patches located further upstream the Słupia river (note that the SAC extends up to 50 km upstream), especially that the Project is located downstream from any of the natural habitats within SAC (which makes potential transmission of waterborne pollutants extremely unlikely).</p> <p>However, this habitat is not found within the AoI (although it is found in SAC impacted by a part of the Project, i.e. Port Ustka). As a consequence, it does not trigger the Critical Habitat nor the Priority Biodiversity Feature criteria.</p>	<p>NO</p>	<p>NO</p>
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<p><b>Active raised bogs (EU habitat code 7110)</b></p>	<p>not assessed (IUCN Red List of Ecosystems)</p> <p>VU [Red List of Natura 2000 Ecosystems of Poland (Perzanowska 2020)]</p>	<p>Habitat Directive Annex I (protected, <b>priority</b>)</p>	<p>as in EU Directive</p>	<p>OMB Port Ustka</p>	<p>NO</p>	<p>Acid bogs, poor in mineral nutrients, sustained mainly by rainwater, with a water level generally higher than the surrounding water table, with perennial vegetation dominated by colourful <i>Sphagna</i> hummocks allowing for the growth of the bog.</p> <p>In total, over 12 hectares are found within the EAAA (SAC PLH220052 Dolina Słupi).</p>	<p>The EAAA is neighbouring SAC PLH220052 Dolina Słupi, where the habitat is present in peat marsh landscapes.</p> <p>The EAAA is delineated as such because part of the project (OMB Port Ustka) encroaches the SAC PLH220052 Dolina Słupi. However, it needs to be noted that this part of the Project is located within an urban area at the boundary of the SAC (Port of Ustka=Ślupia river mouth). Therefore, impacts on natural habitats for this part of the Project are negligible, because there exist no direct nor indirect impact pathways between the Project and habitat patches located further upstream the Ślupia river (note that the SAC extends up to 50 km upstream), especially that the Project is located downstream from any of the natural habitats within SAC (which makes potential transmission of waterborne pollutants extremely unlikely).</p> <p>However, this habitat is not found within the Aol (although it is found in SAC impacted by a part of the Project, i.e. Port Ustka). As a consequence, it does not trigger the Critical Habitat nor the Priority Biodiversity Feature criteria.</p>	<p>NO</p>	<p>NO</p>
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<p><b>Degraded raised bogs still capable of natural regeneration (EU habitat code 7120)</b></p>	<p>not assessed (IUCN Red List of Ecosystems)</p> <p>EN [Red List of Natura 2000 Ecosystems of Poland (Perzanowska 2020)]</p>	<p>Habitat Directive Annex I (protected, not priority)</p>	<p>as in EU Directive</p>	<p>OMB Port Ustka</p>	<p>NO</p>	<p>These are raised bogs where there has been disruption (usually anthropogenic) to the natural hydrology of the peat body, leading to surface desiccation and/or species change or loss. Vegetation on these sites usually contains species typical of active raised bog as the main component, but the relative abundance of individual species is different.</p> <p>In total, over 5 hectares are found within the EAAA (SAC PLH220052 Dolina Słupi).</p>	<p>The EAAA is neighbouring SAC PLH220052 Dolina Słupi, where the habitat is present in peat marsh landscapes.</p> <p>The EAAA is delineated as such because part of the project (OMB Port Ustka) encroaches the SAC PLH220052 Dolina Słupi. However, it needs to be noted that this part of the Project is located within an urban area at the boundary of the SAC (Port of Ustka=Słupia river mouth). Therefore, impacts on natural habitats for this part of the Project are negligible, because there exist no direct nor indirect impact pathways between the Project and habitat patches located further upstream the Słupia river (note that the SAC extends up to 50 km upstream), especially that the Project is located downstream from any of the natural habitats within SAC (which makes potential transmission of waterborne pollutants extremely unlikely).</p> <p>However, this habitat is not found within the Aol (although it is found in SAC impacted by a part of the Project, i.e. Port Ustka). As a consequence, it does not trigger the Critical Habitat nor the Priority Biodiversity Feature criteria.</p>	<p>NO</p>	<p>NO</p>
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<p><b>Transition mires and quaking bogs (EU habitat code 7140)</b></p>	<p>not assessed (IUCN Red List of Ecosystems)  EN [Red List of Natura 2000 Ecosystems of Poland (Perzanowska 2020)]</p>	<p>Habitat Directive Annex I (protected, not priority)</p>	<p>as in EU Directive</p>	<p>OMB Port Ustka</p>	<p>NO</p>	<p>Peat-forming communities developed at the oligotrophic to mesotrophic water surfaces, with characteristics intermediate between soligenous and ombrogenous types.  In total, over 44 hectares are found within the EAAA (SAC PLH220052 Dolina Słupi).</p>	<p>The EAAA is neighbouring SAC PLH220052 Dolina Słupi, where the habitat is present in lake and peat marsh landscapes.  The EAAA is delineated as such because part of the project (OMB Port Ustka) encroaches the SAC PLH220052 Dolina Słupi. However, it needs to be noted that this part of the Project is located within an urban area at the boundary of the SAC (Port of Ustka=Słupia river mouth). Therefore, impacts on natural habitats for this part of the Project are negligible, because there exist no direct nor indirect impact pathways between the Project and habitat patches located further upstream the Słupia river (note that the SAC extends up to 50 km upstream), especially that the Project is located downstream from any of the natural habitats within SAC (which makes potential transmission of waterborne pollutants extremely unlikely).  However, this habitat is not found within the AoI (although it is found in SAC impacted by a part of the Project, i.e. Port Ustka). As a consequence, it does not trigger the Critical Habitat nor the Priority Biodiversity Feature criteria.</p>	<p>NO</p>	<p>NO</p>
<p><b>Depressions on peat substrates of the <i>Rhynchospo</i></b></p>	<p>not assessed (IUCN Red List of Ecosystems)  EN</p>	<p>Habitat Directive Annex I (protected, not priority)</p>	<p>as in EU Directive</p>	<p>OMB Port Ustka</p>	<p>NO</p>	<p>Highly constant pioneer communities of humid exposed peat or, sometimes, sand, with <i>Rhynchospora alba</i>, <i>Rhynchospora fusca</i>, <i>Drosera intermedia</i>, <i>Drosera rotundifolia</i>,</p>	<p>The EAAA is neighbouring SAC PLH220052 Dolina Słupi, where the habitat is present in peat marsh landscapes.</p>	<p>NO</p>	<p>NO</p>

<p><b>tion (EU habitat code 7150)</b></p>	<p>[Red List of Natura 2000 Ecosystems of Poland (Perzanowska 2020)]</p>					<p><i>Lycopodiella inundata</i>, forming on stripped areas of blanket bogs or raised bogs, but also on naturally seep- or frost-eroded areas of wet heaths and bogs, in flushes and in the fluctuation zone of oligotrophic pools with sandy, slightly peaty substratum.</p> <p>In total, over 1 hectare is found within the EAAA (SAC PLH220052 Dolina Słupi).</p>	<p>The EAAA is delineated as such because part of the project (OMB Port Ustka) encroaches the SAC PLH220052 Dolina Słupi. However, it needs to be noted that this part of the Project is located within an urban area at the boundary of the SAC (Port of Ustka=Słupia river mouth). Therefore, impacts on natural habitats for this part of the Project are negligible, because there exist no direct nor indirect impact pathways between the Project and habitat patches located further upstream the Słupia river (note that the SAC extends up to 50 km upstream), especially that the Project is located downstream from any of the natural habitats within SAC (which makes potential transmission of waterborne pollutants extremely unlikely).</p> <p>However, this habitat is not found within the AoI (although it is found in SAC impacted by a part of the Project, i.e. Port Ustka). As a consequence, it does not trigger the Critical Habitat nor the Priority Biodiversity Feature criteria.</p>		
<p><b>Alkaline fens (EU habitat code 7230)</b></p>	<p>not assessed (IUCN Red List of Ecosystems)</p> <p>EN [Red List of Natura 2000 Ecosystems of Poland (Perzanowska 2020)]</p>	<p>Habitat Directive Annex I (protected, not priority)</p>	<p>as in EU Directive</p>	<p>OMB Port Ustka</p>	<p>NO</p>	<p>Wetlands mostly or largely occupied by peat- or tufa-producing small sedge and brown moss communities developed on soils permanently waterlogged, with a soligenous or topogenous base-rich, often calcareous water supply, and with the water table at, or slightly above or below, the substratum. Peat formation, when it occurs, is infra-aquatic. Calciphile small sedges and other</p>	<p>The EAAA is neighbouring SAC PLH220052 Dolina Słupi, where the habitat is present in peat marsh landscapes.</p> <p>The EAAA is delineated as such because part of the project (OMB Port Ustka) encroaches the SAC PLH220052 Dolina Słupi. However, it needs to be noted that this part of the Project is located within an urban area at the boundary of the SAC (Port of Ustka=Słupia river mouth). Therefore, impacts on natural habitats for this part of the</p>	<p>NO</p>	<p>NO</p>

						<p><i>Cyperaceae</i> usually dominate the mire communities.</p> <p>In total, over 24 hectares are found within the EAAA (SAC PLH220052 Dolina Słupi).</p>	<p>Project are negligible, because there exist no direct nor indirect impact pathways between the Project and habitat patches located further upstream the Słupia river (note that the SAC extends up to 50 km upstream), especially that the Project is located downstream from any of the natural habitats within SAC (which makes potential transmission of waterborne pollutants extremely unlikely).</p> <p>However, this habitat is not found within the Aol (although it is found in SAC impacted by a part of the Project, i.e. Port Ustka). As a consequence, it does not trigger the Critical Habitat nor the Priority Biodiversity Feature criteria.</p>		
<p><b>Luzulo-Fagetum beech forests (EU habitat code 9110)</b></p>	<p>not assessed (IUCN Red List of Ecosystems)</p> <p>NT [Red List of Natura 2000 Ecosystems of Poland (Perzanowska 2020)]</p>	<p>Habitat Directive Annex I (protected, not priority)</p>	<p>as in EU Directive</p>	<p>OMB Port Ustka</p>	<p>NO</p>	<p>This forest habitat is widespread in Poland and expanding due to changes in forestry practices (widespread beech planting); however, old stands with natural ecological processes are rare, as the majority of such habitats is managed for commercial forestry (Holeksa &amp; Szwagrzyk 2004).</p> <p>In total, over 84 hectares are found within the EAAA (SAC PLH220052 Dolina Słupi).</p>	<p>The EAAA is neighbouring SAC PLH220052 Dolina Słupi, where the habitat is present in forest landscapes.</p> <p>The EAAA is delineated as such because part of the project (OMB Port Ustka) encroaches the SAC PLH220052 Dolina Słupi. However, it needs to be noted that this part of the Project is located within an urban area at the boundary of the SAC (Port of Ustka=Słupia river mouth). Therefore, impacts on natural habitats for this part of the Project are negligible, because there exist no direct nor indirect impact pathways between the Project and habitat patches located further upstream the Słupia river (note that the SAC extends up to 50 km upstream), especially that the Project is located downstream from any of the natural habitats within SAC (which makes potential</p>	<p>NO</p>	<p>NO</p>

							transmission of waterborne pollutants extremely unlikely).  However, this habitat is not found within the Aol (although it is found in SAC impacted by a part of the Project, i.e. Port Ustka). As a consequence, it does not trigger the Critical Habitat nor the Priority Biodiversity Feature criteria.		
<b>Asperulo-Fagetum beech forests (EU habitat code 9130)</b>	not assessed (IUCN Red List of Ecosystems)  NT [Red List of Natura 2000 Ecosystems of Poland (Perzanowska 2020)]	Habitat Directive Annex I (protected, not priority)	as in EU Directive	OMB Port Ustka	NO	<i>Fagus sylvatica</i> forests developed on neutral or near-neutral soils, with mild humus (mull), of the medio-European and Atlantic domains of Western Europe and of central and northern Central Europe, characterised by a strong representation of species belonging to the ecological groups of <i>Anemone nemorosa</i> , <i>Lamium galeobdolon</i> , <i>Galium odoratum</i> and <i>Melica uniflora</i> .  In total, over 333 hectares are found within the EAAA (SAC PLH220052 Dolina Słupi).	The EAAA is neighbouring SAC PLH220052 Dolina Słupi, where the habitat is present in forest landscapes.  The EAAA is delineated as such because part of the project (OMB Port Ustka) encroaches the SAC PLH220052 Dolina Słupi. However, it needs to be noted that this part of the Project is located within an urban area at the boundary of the SAC (Port of Ustka=Słupia river mouth). Therefore, impacts on natural habitats for this part of the Project are negligible, because there exist no direct nor indirect impact pathways between the Project and habitat patches located further upstream the Słupia river (note that the SAC extends up to 50 km upstream), especially that the Project is located downstream from any of the natural habitats within SAC (which makes potential transmission of waterborne pollutants extremely unlikely).  However, this habitat is not found within the Aol (although it is found in SAC impacted by a part of the Project, i.e. Port Ustka). As a consequence, it does not trigger the Critical	NO	NO

							Habitat nor the Priority Biodiversity Feature criteria.		
<b>Sub-Atlantic and medio-European oak or oak-hornbeam forests of the <i>Carpinion betuli</i> (EU habitat code 9160)</b>	not assessed (IUCN Red List of Ecosystems)  VU [Red List of Natura 2000 Ecosystems of Poland (Perzanowska 2020)]	Habitat Directive Annex I (protected, not priority)	as in EU Directive	Onshore CI	YES	<p>Forests of <i>Quercus robur</i>, <i>Tilia cordata</i> and <i>Carpinus betulum</i> on hydromorphic soils or soils with high water table bottoms of valleys, depressions or in the vicinity of riparian forests.</p> <p>In total, over 52 hectares are found within the EAAA (SAC PLH220052 Dolina Słupi).</p>	<p>This habitat is listed in Annex I of EU Habitat Directive, which makes it a target of conservation actions (i.e. delineating Special Areas of Conservation) but not indicated as priority habitat. As a consequence, it does not meet the Critical Habitat criterion 4b.</p> <p>The EAAA is delineated as such because part of the project (OMB Port Ustka) encroaches the SAC PLH220052 Dolina Słupi. However, it needs to be noted that this part of the Project is located within an urban area at the boundary of the SAC (Port of Ustka=Słupia river mouth). Therefore, impacts on natural habitats for this part of the Project are negligible, because there exist no direct nor indirect impact pathways between the Project and habitat patches located further upstream the Słupia river (note that the SAC extends up to 50 km upstream), especially that the Project is located downstream from any of the natural habitats within SAC (which makes potential transmission of waterborne pollutants extremely unlikely).</p>	NO	NO

							However, this habitat is not found within the Aol (although it is found in SAC impacted by a part of the Project, i.e. Dolina Słupi). As a consequence, it does not trigger the Critical Habitat nor the Priority Biodiversity Feature criteria.		
<b>Galio-Carpinetum oak-hornbeam forests (EU habitat code 9170)</b>	not assessed (IUCN Red List of Ecosystems)  VU [Red List of Natura 2000 Ecosystems of Poland (Perzanowska 2020)]	Habitat Directive Annex I (protected, not priority)	as in EU Directive	OMB Port Ustka	NO	<p><i>Quercus petraea-Carpinus betulus</i> forests of regions with sub-continental climate within the central European range of <i>Fagus sylvatica</i>, dominated by <i>Quercus petraea</i>.</p> <p>In total, over 12 hectares are found within the EAAA (SAC PLH220052 Dolina Słupi).</p>	<p>The EAAA is neighbouring SAC PLH220052 Dolina Słupi, where the habitat is present in forest landscapes.</p> <p>The EAAA is delineated as such because part of the project (OMB Port Ustka) encroaches the SAC PLH220052 Dolina Słupi. However, it needs to be noted that this part of the Project is located within an urban area at the boundary of the SAC (Port of Ustka=Słupia river mouth). Therefore, impacts on natural habitats for this part of the Project are negligible, because there exist no direct nor indirect impact pathways between the Project and habitat patches located further upstream the Słupia river (note that the SAC extends up to 50 km upstream), especially that the Project is located downstream from any of the natural habitats within SAC (which makes potential transmission of waterborne pollutants extremely unlikely).</p> <p>However, this habitat is not found within the Aol (although it is found in SAC impacted by a part of the Project, i.e. Port Ustka). As a consequence, it does not trigger the Critical Habitat nor the Priority Biodiversity Feature criteria.</p>	NO	NO

<p><b>Old acidophilous oak woods with <i>Quercus robur</i> on sandy plains (EU habitat code 9190)</b></p>	<p>not assessed (IUCN Red List of Ecosystems)  VU [Red List of Natura 2000 Ecosystems of Poland (Perzanowska 2020)]</p>	<p>Habitat Directive Annex I (protected, not priority)</p>	<p>as in EU Directive</p>	<p>OMB Port Ustka</p>	<p>NO</p>	<p>Acidophilous forests of the Baltic-North Sea plain, composed of <i>Quercus robur</i>, <i>Betula pendula</i> and <i>Betula pubescens</i>, often mixed with <i>Sorbus aucuparia</i> and <i>Populus tremula</i>, on very oligotrophic, often sandy and podsolised or hydromorphic soils; the bush layer, poorly developed, includes <i>Frangula alnus</i>; the herb layer is formed by <i>Deschampsia flexuosa</i> and other grasses and herbs of acid soils (sometimes includes <i>Molinia caerulea</i>).</p> <p>In total, over 7 hectares are found within the EAAA (SAC PLH220052 Dolina Słupi).</p>	<p>The EAAA is neighbouring SAC PLH220052 Dolina Słupi, where the habitat is present in forest landscapes.</p> <p>The EAAA is delineated as such because part of the project (OMB Port Ustka) encroaches the SAC PLH220052 Dolina Słupi. However, it needs to be noted that this part of the Project is located within an urban area at the boundary of the SAC (Port of Ustka=Słupia river mouth). Therefore, impacts on natural habitats for this part of the Project are negligible, because there exist no direct nor indirect impact pathways between the Project and habitat patches located further upstream the Słupia river (note that the SAC extends up to 50 km upstream), especially that the Project is located downstream from any of the natural habitats within SAC (which makes potential transmission of waterborne pollutants extremely unlikely).</p> <p>However, this habitat is not found within the Aol (although it is found in SAC impacted by a part of the Project, i.e. Port Ustka). As a consequence, it does not trigger the Critical Habitat nor the Priority Biodiversity Feature criteria.</p>	<p>NO</p>	<p>NO</p>
<p><b>Bog woodland (EU habitat code 91D0)</b></p>	<p>not assessed (IUCN Red List of Ecosystems)  NT [Red List of Natura 2000 Ecosystems of Poland (Perzanowska 2020)]</p>	<p>Habitat Directive Annex I (protected, <b>priority</b>)</p>	<p>as in EU Directive</p>	<p>OMB Port Ustka</p>	<p>NO</p>	<p>Coniferous and broad-leaved forests on a humid to wet peaty substrate, with the water level permanently high and even higher than the surrounding water table. The water is always very poor in nutrients (raised bogs and acid fens).</p>	<p>The EAAA is neighbouring SAC PLH220052 Dolina Słupi, where the habitat is present in forested landscapes.</p> <p>The EAAA is delineated as such because part of the project (OMB Port Ustka) encroaches the SAC PLH220052 Dolina Słupi. However, it needs to be noted that this</p>	<p>NO</p>	<p>NO</p>



	Poland (Perzanowska 2020)]					In total, over 28 hectares are found within the EAAA (SAC PLH220052 Dolina Słupia).	part of the Project is located within an urban area at the boundary of the SAC (Port of Ustka=Śłupia river mouth). Therefore, impacts on natural habitats for this part of the Project are negligible, because there exist no direct nor indirect impact pathways between the Project and habitat patches located further upstream the Śłupia river (note that the SAC extends up to 50 km upstream), especially that the Project is located downstream from any of the natural habitats within SAC (which makes potential transmission of waterborne pollutants extremely unlikely).  However, this habitat is not found within the AoI (although it is found in SAC impacted by a part of the Project, i.e. Port Ustka). As a consequence, it does not trigger the Critical Habitat nor the Priority Biodiversity Feature criteria.		
<b>Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (EU habitat code 91E0)</b>	not assessed (IUCN Red List of Ecosystems)  VU [Red List of Natura 2000 Ecosystems of Poland (Perzanowska 2020)]	Habitat Directive Annex I (protected, <b>priority</b> )	as in EU Directive	OMB Port Ustka	NO	Riparian forests of <i>Fraxinus excelsior</i> and <i>Alnus glutinosa</i> , of temperate and Boreal Europe lowland and hill watercourses. Occur on heavy soils periodically inundated by the annual rise of the river level, but otherwise well-drained and aerated during low-water. The herbaceous layer invariably includes many large species ( <i>Filipendula ulmaria</i> , <i>Angelica sylvestris</i> , <i>Cardamine</i> spp., <i>Rumex sanguineus</i> , <i>Carex</i> spp., <i>Cirsium oleraceum</i> ) and various vernal geophytes such as <i>Ranunculus ficaria</i> , <i>Anemone nemorosa</i> , <i>Anemone ranunculoides</i> , <i>Corydalis solida</i> .	The EAAA is polish coastal zone up to 20 km in land, where the habitat is found in riparian areas.  In the context of OMB Port Ustka, the habitat is found outside the AoI (in neighbouring SAC PLH220052 Dolina Słupia); for this part of the Project, there are no because there exist no direct nor indirect impact pathways between this part of the Project and habitat patches located further upstream the Śłupia river (note that the SAC extends up to 50 km upstream), especially that the Project is located downstream from any of the natural habitats within SAC (which makes potential	YES	YES

						<p>In total, over 625 hectares are found within the EAAA (SAC PLH220052 Dolina Słupi).</p>	<p>transmission of waterborne pollutants extremely unlikely).</p> <p>However, in the context of Onshore CI, a small patch of habitat (0,68 ha) is found within Aol. This patch will not be severely affected by construction works, as the underground cable will be constructed using trenchless method. Nevertheless, the habitat is present in the Aol in this area, triggering the following CH/PBF criteria:</p> <p><b>As the habitat is considered as priority in Annex I of the Habitat Directive, it triggers the criteria of Critical Habitat (4b) and Priority Biodiversity Feature (1a).</b></p>		
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### 3.2.4 Criterion 5. Key evolutionary processes

Due to its young geological age, the Baltic Sea region is not a hotspot of species endemism. However, new research has shown examples of very recent speciation events within the Baltic Sea (Pereyra et al., 2009; Momigliano et al., 2018), that were discussed in chapter 3.2.2. Additionally, many marine fish in the Baltic Sea form morphologically divergent populations due to suboptimal conditions, *i.e.* low salinity (Żmudziński, 1990). However, such processes tend to act on a wide, whole-sea scale, while the relatively very small Area of Impact of the Investment does not have any singular attributes which could be linked to them.

## 4 Summary of Critical Habitat and Priority Biodiversity Features

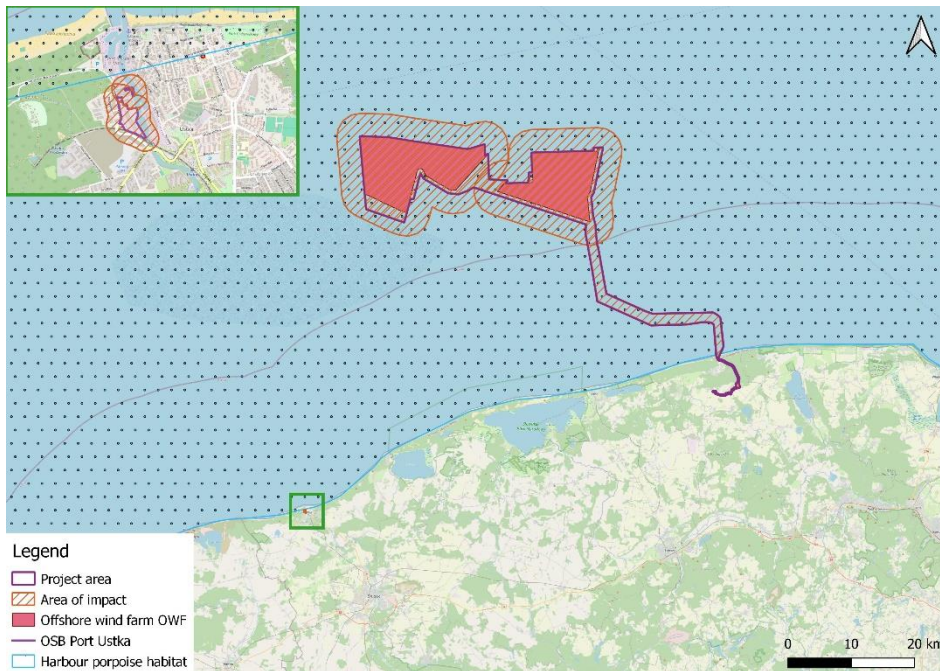
### 4.1 Critical Habitat

The table below summarizes all species and habitats that have been assessed as triggering CH criteria.

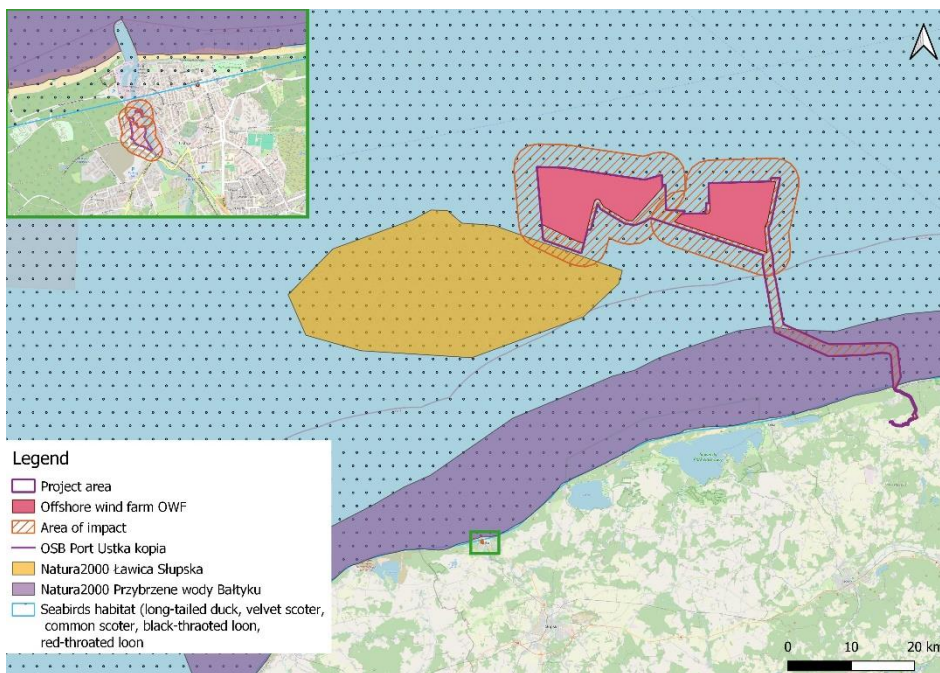
Table 4 CH triggering species and habitats present within the AoI. The numbering of CH criteria is consistent with the numbering used in Chapter 1.1.

Taxonomic group (for species) / Habitat	Species / Habitat	CH criteria	Map
Mammals	Harbour porpoise (Baltic Sea subpopulation) <i>Phocoena phocoena</i>	1a, 1b, 1d, 3a	CH1.1
Mammals	Daubenton's Bat <i>Myotis daubentonii</i>	1a	CH1.5
Mammals	Lesser Noctule <i>Nyctalus leisleri</i>	1a	CH1.5
Mammals	Noctule <i>Nyctalus noctula</i>	1a	CH1.5
Mammals	Nathusius' Pipistrelle <i>Pipistrellus nathusii</i>	1a	CH1.5
Mammals	Soprano Pipistrelle <i>Pipistrellus pygmaeus</i>	1a	CH1.5
Mammals	Common Pipistrelle <i>Pipistrellus pipistrellus</i>	1a	CH1.5
Birds	Long-tailed duck <i>Clangula hyemalis</i>	1b, 1d, 3a	CH1.2
Birds	Velvet scoter <i>Melanitta fusca</i>	1b, 1d, 3a	CH1.2
Birds	Common scoter <i>Melanitta nigra</i>	1d, 3a	CH1.2
Birds	Black-throated loon (Arctic loon) <i>Gavia arctica</i>	1d	CH1.2
Birds	Red-throated loon <i>Gavia stellata</i>	1d	CH1.2
Birds	Common Teal <i>Anas crecca</i>	3a	CH1.2
Birds	Greater Scaup <i>Aythya marila</i>	3a	CH1.2
Birds	Whooper swan <i>Cygnus cygnus</i>	3a	CH1.2
Birds	Tundra swan <i>Cygnus bewickii</i>	3a	CH1.2
Birds	Mute Swan <i>Cygnus olor</i>	3a	CH1.2
Birds	Razorbill <i>Alca torda</i>	3a	CH1.2
Birds	Little Gull <i>Hydrocoloeus minutus</i>	3a	CH1.2
Birds	European Herring Gull <i>Larus argentatus</i>	3a	CH1.2

Taxonomic group (for species) / Habitat	Species / Habitat	CH criteria	Map
Birds	Mew Gull <i>Larus canus</i>	3a	CH1.2
Birds	Lesser Black-backed Gull <i>Larus fuscus</i>	3a	CH1.2
Birds	Black-headed Gull <i>Larus ridibundus</i>	3a	CH1.2
Birds	Sandwich Tern <i>Thalasseus sandvicensis</i>	3a	CH1.2
Birds	Eurasian Curlew <i>Numenius arquata</i>	3a	CH1.4
Birds	Common Crane <i>Grus grus</i>	3a	CH1.4
Birds	Great Cormorant <i>Phalacrocorax carbo</i>	3a	CH1.2
Fish	Atlantic Salmon (Baltic Sea subpopulation) <i>Salmo salar</i>	1d	CH1.3
Lampreys	European river lamprey <i>Lampetra fluviatilis</i>	1d	CH1.3
Habitats	Fixed coastal dunes with herbaceous vegetation ('grey dunes') (EU habitat code: 2130*)	4b	See Fig. 7 and Fig. 8 in Chapter 2.1.1.5 Habitat delineation maps
Habitats	Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> ( <i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i> ) (EU habitat code: 91E0*)	4b	See Fig. 7 and Fig. 9 in Chapter 2.1.1.5 Habitat delineation maps

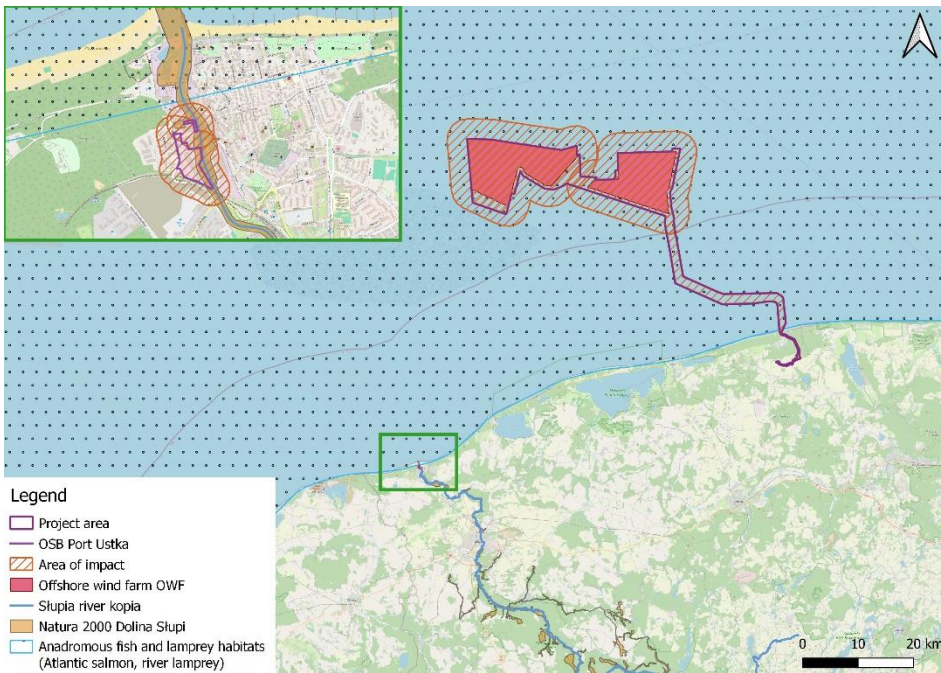


Map CH1.1. Harbour porpoise habitat (CH species) in relation to Project Area and Project Aol for species (i.e. OWF + 2 nautical miles, CI/Port Ustka + 100m).

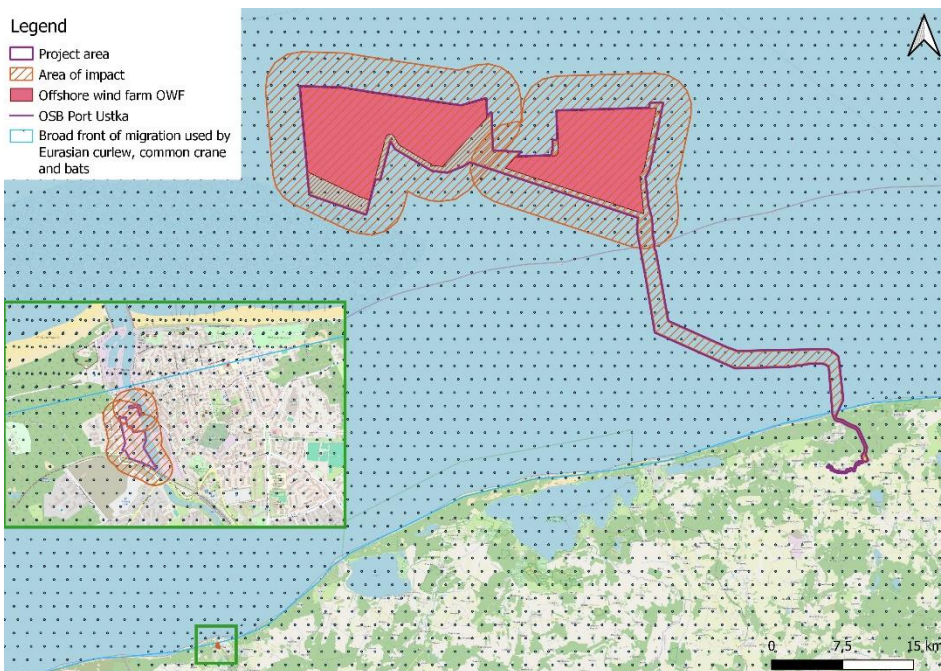


Map CH1.2. Seabird habitats (CH species) in relation to Project Area and Project Aol for species (i.e. OWF + 2 nautical miles, CI/Port Ustka + 100m). Special Bird Protection Areas/Important Bird Areas impacted by the project are also shown (PLB990002 Przybrzeżne wody Bałtyku, PLC990001 Ławica Słupska)





Map CH1.3. Anadromous fish and lampreys (CH species) habitats (Baltic Sea, river Słupia) in relation to Project Area and Project AoI for species (i.e. OWF + 2 nautical miles, CI/Port Ustka + 100m). Special Areas of Conservation impacted by the project area also shown (PLH220052 Dolina Słupi).



Map CH1.4. Flyways used by species migrating over broad migration front (Common Crane, European Curlew, bats) in relation to Project Area and Project AoI for species (i.e. OWF + 2 nautical miles, CI/Port Ustka + 100m).



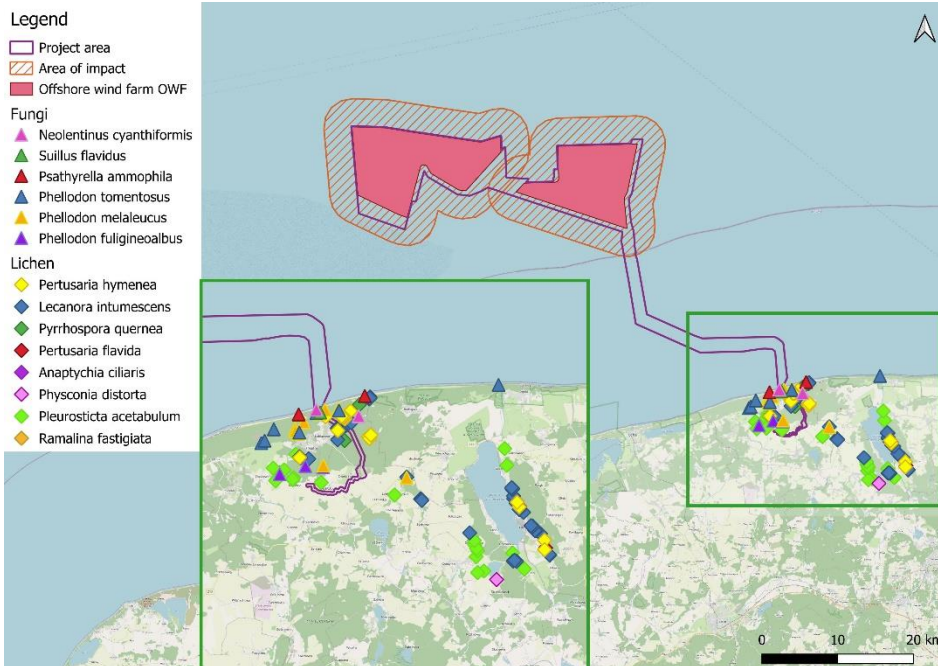
## 4.2 Priority Biodiversity Features

The table below summarizes all species and habitats that have been assessed as triggering PBF criteria.

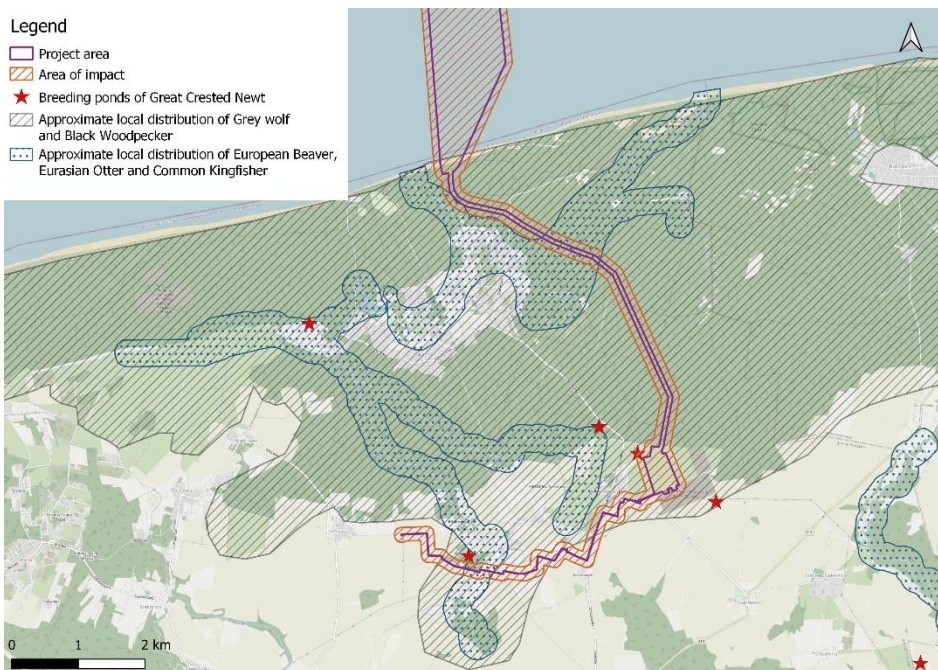
Table 5 PBF-triggering species and habitats present within the Aol. The numbering of CH criteria is consistent with the numbering used in Chapter 1.1.

Taxonomic group (for species) / Habitat	Species / Habitat	PBF criteria	Map
Mammals	Harbour porpoise (Baltic Sea subpopulation) <i>Phocoena phocoena</i>	2a, 2b, 2d	As in CH1.1
Mammals	Grey wolf <i>Canis lupus</i>	2a	Map PBF.2
Mammals	Eurasian otter <i>Lutra lutra</i>	2a	Map PBF.2
Mammals	Eurasian beaver <i>Castor fiber</i>	2a	Map PBF.2
Birds	Long-tailed duck <i>Clangula hyemalis</i>	2b, 2c, 2d, 2f	As in CH1.2
Birds	Velvet scoter <i>Melanitta fusca</i>	2b, 2c, 2d, 2f	As in CH1.2
Birds	Common scoter <i>Melanitta nigra</i>	2d, 2f	As in CH1.2
Birds	Black-throated loon (Arctic loon) <i>Gavia arctica</i>	2a, 2f	As in CH1.2
Birds	Red-throated loon <i>Gavia stellata</i>	2a, 2f	As in CH1.2
Birds	Whooper swan <i>Cygnus cygnus</i>	2a	As in CH1.2
Birds	Tundra swan <i>Cygnus bewickii</i>	2a	As in CH1.2
Birds	European Nightjar <i>Caprimulgus europaeus</i>	2a	As in CH1.4
Birds	Razorbill <i>Alca torda</i>	2f	As in CH1.2
Birds	Black Guillemot <i>Cephus grylle</i>	2f	As in CH1.2
Birds	Black Tern <i>Chlidonias niger</i>	2a	As in CH1.2
Birds	Little Gull <i>Hydrocoloeus minutus</i>	2a	As in CH1.2
Birds	Caspian tern <i>Hydroprogne caspia</i>	2a	As in CH1.2
Birds	European Herring Gull <i>Larus argentatus</i>	2f	As in CH1.2
Birds	Mew Gull <i>Larus canus</i>	2f	As in CH1.2
Birds	Golden plover <i>Pluvialis apricaria</i>	2a	As in CH1.4
Birds	Common Tern <i>Sterna hirundo</i>	2a	As in CH1.2
Birds	Arctic tern <i>Sterna paradisaea</i>	2a	As in CH1.2
Birds	Little Tern <i>Sternula albifrons</i>	2a	As in CH1.2
Birds	Sandwich Tern <i>Thalasseus sandvicensis</i>	2a	As in CH1.2
Birds	Common Kingfisher <i>Alcedo atthis</i>	2a	Map PBF.2
Birds	Common Crane <i>Grus grus</i>	2a	As in CH1.4
Birds	Black woodpecker <i>Dryocopus martius</i>	2a	Map PBF.2
Birds	Red Kite <i>Milvus milvus</i>	2a	As in CH1.5
Birds	Woodlark <i>Lullula arborea</i>	2a	As in CH1.4
Amphibians	Great crested newt <i>Triturus cristatus</i>	2a	Map PBF.2
Fish	European Eel <i>Anguilla anguilla</i>	2d	As in CH1.3
Fish	Atlantic Salmon <i>Salmo salar</i>	2a, 2d	As in CH1.3
Lampreys	European river lamprey <i>Lampetra fluviatilis</i>	2a, 2d	As in CH1.3
Fungi	Dune brittlestem <i>Psathyrella ammophila</i>	2d	Map PBF.1
Fungi	<i>Neolentinus cyathiformis</i> ( <i>Lentinus cyathiformis</i> , <i>Neolentinus schaefferi</i> )	2d	Map PBF.1
Fungi	<i>Suillus flavidus</i>	2d	Map PBF.1
Fungi	<i>Phellodon fuliginosalbus</i>	2d	Map PBF.1
Fungi	<i>Phellodon melaleucus</i>	2d	Map PBF.1
Fungi	Zoned cork hydnum <i>Phellodon tomentosus</i>	2d	Map PBF.1
Lichens	<i>Pyrrhospora querneae</i>	2d	Map PBF.1
Lichens	<i>Pertusaria flavida</i>	2d	Map PBF.1
Lichens	<i>Pertusaria hymenea</i>	2d	Map PBF.1
Lichens	<i>Lecanora intumescens</i>	2d	Map PBF.1

Taxonomic group (for species) / Habitat	Species / Habitat	PBF criteria	Map
Lichens	<i>Anaptychia ciliaris</i>	2d	Map PBF.1
Lichens	<i>Ramalina fastigiata</i>	2d	Map PBF.1
Lichens	<i>Pleurosticta acetabulum</i>	2d	Map PBF.1
Lichens	<i>Physconia distorta</i>	2d	Map PBF.1
Habitats	Shifting dunes along the shoreline with <i>Ammophila arenaria</i> ('white dunes') (EU habitat code: 2120)	1a	See Fig. 7 and Fig. 8 in Chapter 2.1.1.5 Habitat delineation maps
Habitats	Fixed coastal dunes with herbaceous vegetation ('grey dunes') (EU habitat code: 2130*)	1a	See Fig. 7 and Fig. 8 in Chapter 2.1.1.5 Habitat delineation maps
Habitats	Wooded dunes of the Atlantic, Continental and Boreal region (EU habitat code 2180)	1a	See Fig. 7 and Fig. 8 in Chapter 2.1.1.5 Habitat delineation maps
Habitats	Luzulo-Fagetum beech forests (EU habitat code 9110)	1a	See Fig. 7 and Fig. 8 in Chapter 2.1.1.5 Habitat delineation maps
Habitats	Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (Alno-Padion, Alnion incanae, Salicion albae) (EU habitat code: 91E0*)	1a	See Fig. 7 and Fig. 9 in Chapter 2.1.1.5 Habitat delineation maps



Map PBF.1. Fungi and lichen habitats (PBF species) in relation to Project Area and Project Aol for species (i.e. OWF + 2 nautical miles, CI/Port Ustka + 100m). For clarity, the OMB Port Ustka has not been shown, as the species' habitats are located in the area of Onshore CI only.



Map PBF.2. Habitats of other PBF-triggering species in relation to Project Area and Project Aol for species (i.e. OWF + 2 nautical miles, CI/Port Ustka + 100m). For clarity, only the area of Onshore CI has been shown, as the species are present only in this area.

## 5 Impact Assessment on Significant Nature Areas, Critical Habitat, Priority Biodiversity Features

The tables below present potential impacts of the realization of the Project on the following:

- Critical Habitat-triggering species and habitats;
- Priority Biodiversity Feature-triggering species and habitats.
- Significant Nature Areas that were assessed as potentially impacted (directly or indirectly) by the project (see Chapter 3.1 Significant Nature Areas)

For each category and feature, the following areas are discussed:

- Species/habitat
- Potential impact (verification of measurable adverse impacts)
- Planned mitigation imposed by Environmental Decision
- Additional proposed mitigation
- Planned monitoring imposed by Environmental Decision
- Additional proposed monitoring

## 5.1. Critical Habitat impact analysis

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision / additional actions)	Measurable adverse impact	Planned monitoring (Environmental Decision)
<p>Harbour porpoise (Baltic Sea subpopulation) <i>Phocoena phocoena</i></p>	<p>Harbour porpoises, just like other marine mammals, are most vulnerable to OWFs during their construction phase, when there is considerable underwater noise pollution (Carstensen et al., 2006). However, noise from already operating OWFs is unlikely to have negative impacts on that species (Tougaard et al., 2009). After OWF construction, acoustic activity indexes within the developed area tend to recover, albeit slowly (Teilmann &amp; Carstensen, 2012).</p> <p>In case of offshore CI, construction works will not induce significant impact on porpoises, as there will be no piling works (which translates to much lower noise levels), and animals will probably avoid the area of construction works, while habitat disturbance caused by undersea cable will be only temporary and the bottom will be quickly recolonized by fish and invertebrates (providing food for porpoises).</p>	<p>1) In order to reduce the impact of noise on marine mammals, each time when starting the piling works, the so-called “soft start” procedure is to be followed, i.e. starting from a few impacts with a lower force and gradually increasing the impact force, and, consequently, gradually raise the noise intensity.</p> <p>2) While driving the piles fixing the wind turbines to the seabed, apply best available noise emission limiting measures, e.g. in the form of an air curtain/bubble curtain, noise reduction screens, or other technique guaranteeing that the cumulated underwater noise level per hour at the boundary of Natura 2000 site Ostoja Słowińska (PLH220023) will not exceed 140 dB re 1 µPa<sup>2</sup>s weighted with the HF function (HF weighing function designed for marine mammals highly vulnerable to high-frequency noise; NMFS 2016), i.e. the threshold level of TTS (Temporary Threshold Shift) for the species – in other words, the temporary reduction of hearing abilities. The applied method of noise level reduction at the piling stage must allow to</p>	<p>The Environmental Impact assessment analysed the following potential impact on the species:</p> <ul style="list-style-type: none"> <li>• underwater noise</li> <li>• behavioural avoidance</li> <li>• increased maritime traffic noise</li> <li>• resuspension of sediments</li> <li>• collision with vessels</li> </ul> <p>All were considered as small-scale, moderate impacts.</p> <p>The most important aspect is underwater noise. The modelling of noise impacts on porpoise population in the area used population density data from SAMBAH passive acoustic monitoring database of species activity. Under mitigation measures imposed by the Environmental Decision, on average 1,3 - 18,3 animals will be affected by TTS (Temporary Threshold Shift) – in other words, a temporary reduction of hearing abilities as a result of construction works. This translates to at most 1,7% of the local porpoise population. Such an impact (just as another potential impacts on the species), although measurable, <b>will not lead to significant, permanent, adverse impact on the species.</b></p>	<p>OWF:</p> <ul style="list-style-type: none"> <li>- Passive acoustic monitoring of porpoises (using C-PODs) carried out from 6 month before the construction stage and during construction stage;</li> <li>- Passive acoustic monitoring of porpoises continued for 24 months after handing over of a given construction stage for operation, (using the same methods as before and after construction).</li> </ul>

		<p>maintain the noise level indicated above at the boundary of the protected area. If noise measurements indicate exceeding the above-mentioned threshold, driving of the piles must be immediately stopped. The Regional Director for Environmental Protection in Gdańsk shall be immediately informed about such situation not later than 7 days after the occurrence of the event. Further works may be continued after implementation of actions approved in writing by the Regional Director for Environmental Protection in Gdańsk, to exclude the occurrence of excessive noise, which will allow to observe the above-mentioned limit of noise level.</p> <p>3) In relation to the above, measurement of construction noise is to be carried out during the period of intensive works (e.g. driving of foundation piles).</p> <p>4) Passive monitoring of porpoises carried out at the construction stage is to be continued for 24 months after handing over of a given construction stage for operation, using the same methods as during construction.</p> <p>5) During construction phase passive acoustic monitoring of porpoises will be conducted as a mitigation measure to check and confirm presence of absence of porpoises in vicinity of piling area. This Marine Mammal</p>	<p>In terms of the (critical) habitat of the Harbour porpoise, a minor fraction of the entire range of the Baltic subpopulation (which roughly translates to the area of Baltic Proper IMMA) will be temporarily inaccessible for animals during construction works (0.2% of the Baltic Proper IMMA is encroached by the Project; taking into account underwater noise propagation, the extent is probably closer to 0.4% under all relevant mitigation procedures). During operational phase of the Project, the species is likely to return to the area (which may begin to provide additional resources for the species, as areas within and around OWFs tend to host increased fish densities).</p> <p>In summary, <b>the project will lead to measurable, temporary disturbance of approx. 0.4% of the critical habitat within the EAAA, but no significant adverse effects on critical habitat of Harbour porpoise are likely in the long term.</b></p>	
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		<p>Mitigation Plan (MMMP) should be prepared for 3 months before construction phase. MMMP will include design array for acoustics detectors, and their technical specification.</p> <p>The plan will contain:</p> <ul style="list-style-type: none"> <li>- The management zones for acoustic detections, and defined mitigation zones for marine mammals</li> <li>- The pre-piling search/detection procedure, including definitions of timing for searches, and actions for delay-start, if required.</li> <li>- The soft-start/ramp up procedure, including actions to cease piling if practicable should a marine mammal be detected in the pre-defined mitigation zone, or at minimum, to not increase power until the marine mammal exits the mitigation zone</li> <li>- The full power procedure, including marine mammal detection recording forms throughout the duration of piling activities. If there is a break in piling operations for a pre-defined period of time, the pre-piling search/detection procedure is repeated before recommencement of the soft-start and full power procedure.</li> <li>- Timing, including seasonal restrictions for piling activities, where applicable.</li> </ul>		
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		<ul style="list-style-type: none"> <li>- Software calibration, communications procedures between the rPAM observer and the installation vessel</li> <li>- Monitoring and reporting protocols, including definitions of corrective actions if required.</li> </ul>		
<p>Daubenton's Bat <i>Myotis daubentonii</i></p>	<p>In case of all bats, the potential impacts of the project are as following:</p> <p>OWF:</p> <ul style="list-style-type: none"> <li>- collisions with wind turbines</li> <li>- noise during construction (temporary avoidance of the area)</li> </ul> <p>Because of overall very low acoustic activity of bats within the planned OWF, the impacts above are considered as negligible-scale, minor impacts.</p> <p>Offshore CI:</p> <ul style="list-style-type: none"> <li>- noise during construction (temporary avoidance of the area)</li> </ul> <p>Onshore CI:</p> <ul style="list-style-type: none"> <li>- habitat fragmentation</li> <li>- artificial light at night (ALAN)</li> <li>- noise pollution</li> <li>- collisions</li> </ul> <p>For onshore CI, in case of all mammals, habitat fragmentation and ALAN were assessed as significant, noise pollution as minor, while collisions as negligible.</p>	<p>In case of OWF, no specific mitigation is imposed by Environmental Decision, as bat acoustic activity during migration within the planned OWF was overall very low, the potential effects of collisions on population level were considered negligible.</p> <p>In case of onshore CI, as the impacts were considered as generally low and local, no specific requirements for bat protection were imposed apart of the requirement to limit tree felling to period where there are no active breeding colonies of bats in tree cavities (mid October – end of February). Tree felling is allowed outside that period only under supervision of a chiropterologist. If an active breeding colony is found, felling of the tree will be delayed until the colony is spontaneously dissipated after the breeding season is finished.</p> <p>Similarly, any demolition works performed within existing buildings in OMB Port Ustka must be preceded by a field visit of a</p>	<p>Potential bat collisions with OWF turbines are a potential measurable, negative effect of the project, potentially affecting large areas (i.e. populations using the southern Baltic Sea as their migratory flyway). However, as pre-construction monitoring indicated overall very low activity of bats migrating, the adverse effect on population scale of specific species of bats is extremely unlikely, as the OWF area does not seem to hold important concentrations of any bat species. Therefore, project-induced mortality is likely to be negligible on a population scale.</p> <p>In case of onshore CI, the potential negative impact may lead to measurable bat habitat deterioration on a very local scale (e.g. increased ALAN), but do not translate to excess mortality or permanent exclusion of bats from the Aol of the project. <b>As a consequence, the completion of the project will not lead to significant, permanent, adverse impact on the species.</b></p> <p>In terms of the (critical) habitat of the species, the Project encroaches only a minor fraction of</p>	<p>OWF:</p> <ul style="list-style-type: none"> <li>- Monitoring of bat activity within the constructed OWF (using the same methodology as during pre-construction monitoring, using guidelines published by Kepel et al. 2011). The monitoring will be performed during first 5 years of functioning of the OWF, and is required to last at least 3 years, covering both spring and autumn. Monitoring within 1<sup>st</sup> 2 years of the OWF functioning is compulsory; the last</li> </ul>

	<p>However, in case of bats, the forest habitat fragmentation as a consequence of onshore CI construction is not likely to provide a strong negative impact, as bats often use such ecotonal structures for navigation and foraging. However, they may be affected by ALAN at landscape level, with Daubenton's bat being negatively affected (Voigt et al., 2021).</p>	<p>chiropterologist to verify whether the buildings are not currently inhabited by bats. In case of finding a breeding colony/a wintering aggregation, works will be delayed until the colony is spontaneously dissipated after the breeding season is finished/after the wintering aggregation is spontaneously dissipated in spring.</p>	<p>the EAAA (delineated as Polish Baltic Sea (internal marine waters, territorial sea and exclusive economic zone) + 10 km inland), ie. 0.5%. Importantly, the majority of the Project area is located offshore, ie. within areas that are used for migration only, and are not part of the species' core habitats. In case of terrestrial habitats, the local destruction/fragmentation of habitats during underground cable construction works is negligible at the EAAA level (&lt;0.001% of area lost). As a consequence, <b>the project will not lead to significant, adverse effect in critical habitat of the species.</b></p>	<p>year of monitoring can be performed between 3<sup>rd</sup> and 5<sup>th</sup> year of OWF operation.</p>
<p>Lesser Noctule <i>Nyctalus leisleri</i></p>	<p>In case of all bats, the potential impacts of the project are as following:</p> <p>OWF:</p> <ul style="list-style-type: none"> <li>- collisions with wind turbines</li> <li>- noise during construction (temporary avoidance of the area)</li> </ul> <p>Because of overall very low acoustic activity of bats within the planned OWF, the impacts above are considered as negligible-scale, minor impacts.</p> <p>Offshore CI:</p> <ul style="list-style-type: none"> <li>- noise during construction (temporary avoidance of the area)</li> </ul> <p>Onshore CI:</p> <ul style="list-style-type: none"> <li>- habitat fragmentation</li> <li>- artificial light at night (ALAN)</li> <li>- noise pollution</li> <li>- collisions</li> </ul>	<p>In case of OWF, no specific mitigation is imposed by Environmental Decision, as bat acoustic activity during migration within the planned OWF was overall very low, the potential effects of collisions on population level were considered negligible.</p> <p>In case of onshore CI, as the impacts were considered as generally low and local, no specific requirements for bat protection were imposed apart of the requirement to limit tree felling to period where there are no active breeding colonies of bats in tree cavities (mid October – end of February). Tree felling is allowed outside that period only under supervision of a chiropterologist. If an active breeding colony is found, felling of the tree will be delayed until the colony is spontaneously dissipated after the breeding season is finished.</p>	<p>Potential bat collisions with OWF turbines are a potential measurable, negative effect of the project, potentially affecting large areas (i.e. populations using the southern Baltic Sea as their migratory flyway). However, as pre-construction monitoring indicated overall very low activity of bats migrating, the adverse effect on population scale of specific species of bats is extremely unlikely, as the OWF area does not seem to hold important concentrations of any bat species. Therefore, project-induced mortality is likely to be negligible on a population scale.</p> <p>In case of onshore CI, the potential negative impact may lead to measurable bat habitat deterioration on a very local scale (e.g. increased ALAN), but do not translate to excess mortality or permanent exclusion of bats from the Aol of the project. <b>As a consequence, the completion of the project will not lead to</b></p>	<p>OWF:</p> <ul style="list-style-type: none"> <li>- Monitoring of bat activity within the constructed OWF(using the same methodology as during pre-construction monitoring, using guidelines published by Kepel et al. 2011). The monitoring will be performed during first 5 years of functioning of the OWF, and is required to last at least 3 years, covering both spring and autumn.</li> </ul>

	<p>For onshore CI, in case of all mammals, habitat fragmentation and ALAN were assessed as significant, noise pollution as minor, while collisions as negligible. However, in case of bats, the forest habitat fragmentation as a consequence of onshore CI construction is not likely to provide a strong negative impact, as bats often use such ecotonal structures for navigation and foraging. Bats may be negatively affected by ALAN at landscape level, but Lesser noctule is a being neutrally or even positively affected by ALAN (Voigt et al., 2021).</p>	<p>Similarly, any demolition works performed within existing buildings in OMB Port Ustka must be preceded by a field visit of a chiropterologist to verify whether the buildings are not currently inhabited by bats. In case of finding a breeding colony/a wintering aggregation, works will be delayed until the colony is spontaneously dissipated after the breeding season is finished/after the wintering aggregation is spontaneously dissipated in spring.</p>	<p><b>significant, permanent adverse impact on the species.</b></p> <p>In terms of the (critical) habitat of the species, the Project encroaches only a minor fraction of the EAAA (delineated as Polish Baltic Sea (internal marine waters, territorial sea and exclusive economic zone) + 10 km inland), ie. &lt;0.5%. Importantly, the majority of the Project area is located offshore, ie. within areas that are used for migration only, and are not part of the species' core habitats. In case of terrestrial habitats, the local destruction/fragmentation of habitats during underground cable construction works is negligible at the EAAA level (&lt;0.001% of area lost). As a consequence, <b>the project will not lead to significant, adverse effect in critical habitat of the species.</b></p>	<p>Monitoring within 1<sup>st</sup> 2 years of the OWF functioning is compulsory; the last year of monitoring can be performed between 3<sup>rd</sup> and 5<sup>th</sup> year of OWF operation.</p>
<p>Noctule <i>Nyctalus noctula</i></p>	<p>In case of all bats, the potential impacts of the project are as following:</p> <p>OWF:</p> <ul style="list-style-type: none"> <li>- collisions with wind turbines</li> <li>- noise during construction (temporary avoidance of the area)</li> </ul> <p>Because of overall very low acoustic activity of bats within the planned OWF, the impacts above are considered as negligible-scale, minor impacts.</p> <p>Offshore CI:</p> <ul style="list-style-type: none"> <li>- noise during construction (temporary avoidance of the area)</li> </ul>	<p>In case of OWF, no specific mitigation is imposed by Environmental Decision, as bat acoustic activity during migration within the planned OWF was overall very low, the potential effects of collisions on population level were considered negligible.</p> <p>In case of onshore CI, as the impacts were considered as generally low and local, no specific requirements for bat protection were imposed apart of the requirement to limit tree felling to period where there are no active breeding colonies of bats in tree cavities (mid October – end of February). Tree felling is allowed outside that period only under supervision of a</p>	<p>Potential bat collisions with OWF turbines are a potential measurable, negative effect of the project, potentially affecting large areas (i.e. populations using the southern Baltic Sea as their migratory flyway). However, as pre-construction monitoring indicated overall very low activity of bats migrating, the adverse effect on population scale of specific species of bats is extremely unlikely, as the OWF area does not seem to hold important concentrations of any bat species. Therefore, project-induced mortality is likely to be negligible on a population scale.</p> <p>In case of onshore CI, the potential negative impact may lead to measurable bat habitat deterioration on a very local scale (e.g.</p>	<p>OWF:</p> <ul style="list-style-type: none"> <li>- Monitoring of bat activity within the constructed OWF (using the same methodology as during pre-construction monitoring, using guidelines published by Kepel et al. 2011). The monitoring will be performed during first 5 years of functioning of the</li> </ul>

	<p>Onshore CI:</p> <ul style="list-style-type: none"> <li>- habitat fragmentation</li> <li>- artificial light at night (ALAN)</li> <li>- noise pollution</li> <li>- collisions</li> </ul> <p>For onshore CI, in case of all mammals, habitat fragmentation and ALAN were assessed as significant, noise pollution as minor, while collisions as negligible. However, in case of bats, the forest habitat fragmentation as a consequence of onshore CI construction is not likely to provide a strong negative impact, as bats often use such ecotonal structures for navigation and foraging. Bats may be negatively affected by ALAN at landscape level, but Common noctule is a species for which neutral or even positive effects were also reported ALAN (Voigt et al., 2021).</p>	<p>chiropterologist. If an active breeding colony is found, felling of the tree will be delayed until the colony is spontaneously dissipated after the breeding season is finished.</p> <p>Similarly, any demolition works performed within existing buildings in OMB Port Ustka must be preceded by a field visit of a chiropterologist to verify whether the buildings are not currently inhabited by bats. In case of finding a breeding colony/a wintering aggregation, works will be delayed until the colony is spontaneously dissipated after the breeding season is finished/after the wintering aggregation is spontaneously dissipated in spring.</p>	<p>increased ALAN), but do not translate to excess mortality or permanent exclusion of bats from the Aol of the project. <b>As a consequence, the completion of the project will not lead to significant, permanent, adverse impact on the species.</b></p> <p>In terms of the (critical) habitat of the species, the Project encroaches only a minor fraction of the EAAA (delineated as Polish Baltic Sea (internal marine waters, territorial sea and exclusive economic zone) + 10 km inland), ie. &lt;0.5%. Importantly, the majority of the Project area is located offshore, ie. within areas that are used for migration only, and are not part of the species' core habitats. In case of terrestrial habitats, the local destruction/fragmentation of habitats during underground cable construction works is negligible at the EAAA level (&lt;0.001% of area lost). As a consequence, <b>the project will not lead to significant, adverse effect in critical habitat of the species.</b></p>	<p>OWF, and is required to last at least 3 years, covering both spring and autumn. Monitoring within 1<sup>st</sup> 2 years of the OWF functioning is compulsory; the last year of monitoring can be performed between 3<sup>rd</sup> and 5<sup>th</sup> year of OWF operation.</p>
<p>Nathusius' Pipistrelle <i>Pipistrellus nathusii</i></p>	<p>In case of all bats, the potential impacts of the project are as following:</p> <p>OWF:</p> <ul style="list-style-type: none"> <li>- collisions with wind turbines</li> <li>- noise during construction (temporary avoidance of the area)</li> </ul> <p>Because of overall very low acoustic activity of bats within the planned OWF,</p>	<p>In case of OWF, no specific mitigation is imposed by Environmental Decision, as bat acoustic activity during migration within the planned OWF was overall very low, the potential effects of collisions on population level were considered negligible.</p> <p>In case of onshore CI, as the impacts were considered as generally low and local, no specific requirements for bat protection</p>	<p>Potential bat collisions with OWF turbines are a potential measurable, negative effect of the project, potentially affecting large areas (i.e. populations using the southern Baltic Sea as their migratory flyway). However, as pre-construction monitoring indicated overall very low activity of bats migrating, the adverse effect on population scale of specific species of bats is extremely unlikely, as the OWF area does not seem to hold important concentrations of any bat</p>	<p>OWF:</p> <ul style="list-style-type: none"> <li>- Monitoring of bat activity within the constructed OWF (using the same methodology as during pre-construction monitoring, using guidelines</li> </ul>

	<p>the impacts above are considered as negligible-scale, minor impacts.</p> <p>Offshore CI:</p> <ul style="list-style-type: none"> <li>- noise during construction (temporary avoidance of the area)</li> </ul> <p>Onshore CI:</p> <ul style="list-style-type: none"> <li>- habitat fragmentation</li> <li>- artificial light at night (ALAN)</li> <li>- noise pollution</li> <li>- collisions</li> </ul> <p>For onshore CI, in case of all mammals, habitat fragmentation and ALAN were assessed as significant, noise pollution as minor, while collisions as negligible. However, in case of bats, the forest habitat fragmentation as a consequence of onshore CI construction is not likely to provide a strong negative impact, as bats often use such ecotonal structures for navigation and foraging. Bats may be negatively affected by ALAN at landscape level, but <i>Nathusius' pipistrelle</i> is a species for which neutral or even positive effects were also reported ALAN (Voigt et al., 2021).</p>	<p>were imposed apart of the requirement to limit tree felling to period where there are no active breeding colonies of bats in tree cavities (mid October – end of February). Tree felling is allowed outside that period only under supervision of a chiropterologist. If an active breeding colony is found, felling of the tree will be delayed until the colony is spontaneously dissipated after the breeding season is finished.</p> <p>Similarly, any demolition works performed within existing buildings in OMB Port Ustka must be preceded by a field visit of a chiropterologist to verify whether the buildings are not currently inhabited by bats. In case of finding a breeding colony/a wintering aggregation, works will be delayed until the colony is spontaneously dissipated after the breeding season is finished/after the wintering aggregation is spontaneously dissipated in spring.</p>	<p>species. Therefore, project-induced mortality is likely to be negligible on a population scale.</p> <p>In case of onshore CI, the potential negative impact may lead to measurable bat habitat deterioration on a very local scale (e.g. increased ALAN), but do not translate to excess mortality or permanent exclusion of bats from the Aol of the project. <b>As a consequence, the completion of the project will not lead to significant, permanent, adverse impact on the species.</b></p> <p>In terms of the (critical) habitat of the species, the Project encroaches only a minor fraction of the EAAA (delineated as Polish Baltic Sea (internal marine waters, territorial sea and exclusive economic zone) + 10 km inland), ie. &lt;0.5%. Importantly, the majority of the Project area is located offshore, ie. within areas that are used for migration only, and are not part of the species' core habitats. In case of terrestrial habitats, the local destruction/fragmentation of habitats during underground cable construction works is negligible at the EAAA level (&lt;0.001% of area lost). As a consequence, the <b>project will not lead to significant, adverse effect in critical habitat of the species.</b></p>	<p>published by Kepel et al. 2011). The monitoring will be performed during first 5 years of functioning of the OWF, and is required to last at least 3 years, covering both spring and autumn. Monitoring within 1<sup>st</sup> 2 years of the OWF functioning is compulsory; the last year of monitoring can be performed between 3<sup>rd</sup> and 5<sup>th</sup> year of OWF operation.</p>
<p>Soprano Pipistrelle <i>Pipistrellus pygmaeus</i></p>	<p>In case of all bats, the potential impacts of the project are as following:</p> <p>OWF:</p> <ul style="list-style-type: none"> <li>- collisions with wind turbines</li> </ul>	<p>In case of OWF, no specific mitigation is imposed by Environmental Decision, as bat acoustic activity during migration within the planned OWF was overall very low, the</p>	<p>Potential bat collisions with OWF turbines are a potential measurable, negative effect of the project, potentially affecting large areas (i.e. populations using the southern Baltic Sea as their migratory flyway). However, as pre-</p>	<p>OWF:</p> <ul style="list-style-type: none"> <li>- Monitoring of bat activity within the constructed OWF(using the</li> </ul>

	<ul style="list-style-type: none"> <li>- noise during construction (temporary avoidance of the area)</li> </ul> <p>Because of overall very low acoustic activity of bats within the planned OWF, the impacts above are considered as negligible-scale, minor impacts.</p> <p>Offshore CI:</p> <ul style="list-style-type: none"> <li>- noise during construction (temporary avoidance of the area)</li> </ul> <p>Onshore CI:</p> <ul style="list-style-type: none"> <li>- habitat fragmentation</li> <li>- artificial light at night (ALAN)</li> <li>- noise pollution</li> <li>- collisions</li> </ul> <p>For onshore CI, in case of all mammals, habitat fragmentation and ALAN were assessed as significant, noise pollution as minor, while collisions as negligible. However, in case of bats, the forest habitat fragmentation as a consequence of onshore CI construction is not likely to provide a strong negative impact, as bats often use such ecotonal structures for navigation and foraging. Bats may be negatively affected by ALAN at landscape level, but soprano pipistrelle is a species for which neutral or even positive effects were also reported ALAN (Voigt et al., 2021).</p>	<p>potential effects of collisions on population level were considered negligible.</p> <p>In case of onshore CI, as the impacts were considered as generally low and local, no specific requirements for bat protection were imposed apart of the requirement to limit tree felling to period where there are no active breeding colonies of bats in tree cavities (mid October – end of February). Tree felling is allowed outside that period only under supervision of a chiropterologist. If an active breeding colony is found, felling of the tree will be delayed until the colony is spontaneously dissipated after the breeding season is finished.</p> <p>Similarly, any demolition works performed within existing buildings in OMB Port Ustka must be preceded by a field visit of a chiropterologist to verify whether the buildings are not currently inhabited by bats. In case of finding a breeding colony/a wintering aggregation, works will be delayed until the colony is spontaneously dissipated after the breeding season is finished/after the wintering aggregation is spontaneously dissipated in spring.</p>	<p>construction monitoring indicated overall very low activity of bats migrating, the adverse effect on population scale of specific species of bats is extremely unlikely, as the OWF area does not seem to hold important concentrations of any bat species. Therefore, project-induced mortality is likely to be negligible on a population scale.</p> <p>In case of onshore CI, the potential negative impact may lead to measurable bat habitat deterioration on a very local scale (e.g. increased ALAN), but do not translate to excess mortality or permanent exclusion of bats from the Aol of the project. <b>As a consequence, the completion of the project will not lead to significant, permanent, adverse impact on the species.</b></p> <p>In terms of the (critical) habitat of the species, the Project encroaches only a minor fraction of the EAAA (delineated as Polish Baltic Sea (internal marine waters, territorial sea and exclusive economic zone) + 10 km inland), ie. &lt;0.5%. Importantly, the majority of the Project area is located offshore, ie. within areas that are used for migration only, and are not part of the species' core habitats. In case of terrestrial habitats, the local destruction/fragmentation of habitats during underground cable construction works is negligible at the EAAA level (&lt;0.001% of area lost). As a consequence, the <b>project will not lead to measurable, adverse effect in critical habitat of the species.</b></p>	<p>same methodology as during pre-construction monitoring, using guidelines published by Kepel et al. 2011). The monitoring will be performed during first 5 years of functioning of the OWF, and is required to last at least 3 years, covering both spring and autumn. Monitoring within 1<sup>st</sup> 2 years of the OWF functioning is compulsory; the last year of monitoring can be performed between 3<sup>rd</sup> and 5<sup>th</sup> year of OWF operation.</p>
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<p>Common Pipistrelle <i>Pipistrellus pipistrellus</i></p>	<p>In case of all bats, the potential impacts of the project are as following:</p> <p>OWF:</p> <ul style="list-style-type: none"> <li>- collisions with wind turbines</li> <li>- noise during construction (temporary avoidance of the area)</li> </ul> <p>Because of overall very low acoustic activity of bats within the planned OWF, the impacts above are considered as negligible-scale, minor impacts.</p> <p>Offshore CI:</p> <ul style="list-style-type: none"> <li>- noise during construction (temporary avoidance of the area)</li> </ul> <p>Onshore CI:</p> <ul style="list-style-type: none"> <li>- habitat fragmentation</li> <li>- artificial light at night (ALAN)</li> <li>- noise pollution</li> <li>- collisions</li> </ul> <p>For onshore CI, in case of all mammals, habitat fragmentation and ALAN were assessed as significant, noise pollution as minor, while collisions as negligible. However, in case of bats, the forest habitat fragmentation as a consequence of onshore CI construction is not likely to provide a strong negative impact, as bats often use such ecotonal structures for navigation and foraging. Bats may be negatively affected by ALAN at landscape level, but common pipistrelle is a species for which neutral</p>	<p>In case of OWF, no specific mitigation is imposed by Environmental Decision, as bat acoustic activity during migration within the planned OWF was overall very low, the potential effects of collisions on population level were considered negligible.</p> <p>In case of onshore CI, as the impacts were considered as generally low and local, no specific requirements for bat protection were imposed apart of the requirement to limit tree felling to period where there are no active breeding colonies of bats in tree cavities (mid October – end of February). Tree felling is allowed outside that period only under supervision of a chiropterologist. If an active breeding colony is found, felling of the tree will be delayed until the colony is spontaneously dissipated after the breeding season is finished.</p> <p>Similarly, any demolition works performed within existing buildings in OMB Port Ustka must be preceded by a field visit of a chiropterologist to verify whether the buildings are not currently inhabited by bats. In case of finding a breeding colony/a wintering aggregation, works will be delayed until the colony is spontaneously dissipated after the breeding season is finished/after the wintering aggregation is spontaneously dissipated in spring.</p>	<p>Potential bat collisions with OWF turbines are a potential measurable, negative effect of the project, potentially affecting large areas (i.e. populations using the southern Baltic Sea as their migratory flyway). However, as pre-construction monitoring indicated overall very low activity of bats migrating, the adverse effect on population scale of specific species of bats is extremely unlikely, as the OWF area does not seem to hold important concentrations of any bat species. Therefore, project-induced mortality is likely to be negligible on a population scale.</p> <p>In case of onshore CI, the potential negative impact may lead to measurable bat habitat deterioration on a very local scale (e.g. increased ALAN), but do not translate to excess mortality or permanent exclusion of bats from the Aol of the project. <b>As a consequence, the completion of the project will not lead to significant, permanent, adverse impact on the species.</b></p> <p>In terms of the (critical) habitat of the species, the Project encroaches only a minor fraction of the EAAA (delineated as Polish Baltic Sea (internal marine waters, territorial sea and exclusive economic zone) + 10 km inland), ie. &lt;0.5%. Importantly, the majority of the Project area is located offshore, ie. within areas that are used for migration only, and are not part of the species' core habitats. In case of terrestrial habitats, the local destruction/fragmentation of habitats during underground cable construction</p>	<p>OWF:</p> <ul style="list-style-type: none"> <li>- Monitoring of bat activity within the constructed OWF (using the same methodology as during pre-construction monitoring, using guidelines published by Kepel et al. 2011). The monitoring will be performed during first 5 years of functioning of the OWF, and is required to last at least 3 years, covering both spring and autumn. Monitoring within 1<sup>st</sup> 2 years of the OWF functioning is compulsory; the last year of monitoring can be performed between 3<sup>rd</sup> and 5<sup>th</sup> year of OWF operation.</li> </ul>
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	or even positive effects were also reported ALAN (Voigt et al., 2021).		works is negligible at the EAAA level (<0.001% of area lost). As a consequence, the <b>project will not lead to significant, adverse effect in critical habitat of the species.</b>	
Long-tailed duck <i>Clangula hyemalis</i>	<p>Sea ducks in general have been proved to have high collision avoidance rate with wind turbines (even 99,3 - 99,9% Desholm et al, 2005). As a consequence, the OWF installation will not be linked with significant additional mortality of the species – the mortality modelling performed for Environmental Impact Assessment indicated OWF-induced mortality at the level of 0-1 individuals per year, which is negligible on local, regional and global scale in case of Long-tailed duck.</p> <p>However, sea ducks strongly avoid the area of operating OWFs; the avoidance spans for up to 2 km from the edge of an operating OWF, while in surrounding waters farther away, bird densities tend to increase (Petersen et al., 2006; Dierschke et al., 2016). This phenomenon concerns both flights during migration as well as resting/foraging on the sea surface. As a consequence, migrating sea ducks will modify their route to avoid the OWF, while the area between the wind turbines will be excluded as resting/foraging areas for the species.</p> <p>In case of exclusion during migration flights, it will impose some energetic</p>	<p>The Environmental Decision imposed the following mitigation procedures to minimize the impact on seabirds using the OWF as well as the neighbouring N2000 area Ławica Słupska as migration corridor/wintering habitat.</p> <p>First, the original span of the OWF area was modified to fulfill the requirement of keeping the OWF at least 2 km from the edge of N2000 Słupska site, to minimize the impact on birds using the site for wintering. This is in line with published research on displacement of marine ducks by operating OWFs (Dierschke et al., 2016).</p> <p>Second, the original extent of the OWF area was modified to keep a 5-km wide, open corridor between 2 subunits of the OWF (i.e. Baltica 2, Baltica 3). The corridor should enable birds to migrate freely to and from the north-east to reach the N2000 site Ławica Słupska.</p> <p>Third, construction works that require piling (and lead to noise pollution) will not be performed between 1st November and 30th April, to avoid disturbing</p>	<p>The project will not lead to excess mortality of the species, as the levels of mortality generated by wind turbines will be negligible at the population level due to high avoidance of wind turbines by the species.</p> <p>The project will induce minor changes in the flight trajectory during migration due to avoidance of wind farms by the species. This will be mitigated by creating a 5-km wide migration corridor between the two units of the OWF, as well as moving the OWF turbines from the edge of N2000 site Ławica Słupska, which is a critical habitat for sea ducks (especially Long-tailed duck).</p> <p>The project will generate local displacement from foraging/resting areas on sea surface. This will be mitigated by moving the OWF turbines 2 km from the edge of N2000 site Ławica Słupska, to minimize the impact on birds using the N2000 area for wintering. Nevertheless, the birds currently using the OWF+2 km zone for winter foraging will be permanently displaced after completion of the project (wintering habitat loss). However, the OWF area provides only suboptimal winter foraging habitat for the species, as it prefers water up to 20-30 m deep (diving deeper in search for food is less profitable in context of</p>	<p>The Environmental Decision imposes the following monitoring procedures regarding seabirds and migratory birds within the constructed OWF:</p> <ul style="list-style-type: none"> <li>- <b>seabird</b> monitoring within the OWF will be conducted in 1<sup>st</sup> and 2<sup>nd</sup> year after completion of each part of the OWF, within the OWF as well as N2000 Ławica Słupska</li> <li>- After that, additional monitoring will be conducted in 4<sup>th</sup> and 5<sup>th</sup> year;</li> <li>- The monitoring must include flight altitude, airspace use intensity, flight direction;</li> <li>- Seabird monitoring must be performed from September to</li> </ul>

	<p>costs for the birds (which will change their route to avoid OWF); however, that effect is unlikely to be significant – modelling approaches performed for the Environmental Impact Assessment show that for seaducks migrating between the Baltic Sea and their breeding grounds in the Arctic, the additional energetic costs of avoiding the OWF area are at level of below 1% of total energetic costs of migration (route increased by 12,3 km). Therefore, that impact was assessed as minor. However, its effect can be mitigated (see Mitigation)</p> <p>In case of exclusion from resting/foraging habitats during winter, wintering and resting sea ducks will be displaced from the OWF area and +2 km from its surroundings. This impact was assessed as minor or medium (depending on the seaduck species, with medium for Long-tailed duck and minor for Velvet scoter). However, its effect can be mitigated (see Mitigation).</p> <p>In case of offshore CI, the negative impact of the Project will be temporary, limited to short-time displacement of birds during construction works. As macrozoobenthic communities (i.e. food source for seaducks) along the undersea cable are expected to recover after a few seasons, no long-term negative effects of offshore CI are expected.</p>	<p>wintering/migrating birds. In the same period of time, vessels engaged in construction works are prevented from entering N2000 Ławica Słupska. In the same period of time, vessels engaged in construction works are prevented from entering N2000 Ławica Słupska. hibited from entering N2000 area Ławica Słupska.</p> <p>Fourth, the construction of wind turbine towers is required to be tubular instead of lattice, to reduce the potential bird collisions.</p> <p>Fifth, The monitoring and WTG shut-down system will ensure adequate spatial coverage to cover the entire OWF with radar and all perimeters covered with cameras and the ability to operate (identify target species) in adverse weather conditions and at night</p> <ul style="list-style-type: none"> <li>- WTG shut-down system will include: radar, set of day and night cameras and identification system,</li> <li>- Specifications of scenario which will trigger shut-down procedure will be prepared in between Project, Lenders and LIESC,</li> <li>- The trigger for creation of such specifications will be material increase in collisions compared with modelled number</li> </ul>	<p>energetic costs), while 94% of the OWF area is deeper than 30 m. Consistently, the numbers and densities of Long-tailed ducks observed on water surface within the OWF area+2nm buffer zone were consistently lower (by an order of magnitude) than within the SPA/SAC PLC990001 Ławica Słupska (i.e. 3547 birds vs. 54,139 birds). As a consequence, displacement of a small (although measurable) fraction of the wintering population towards optimal habitats located in immediate vicinity of the Project should not translate to significant adverse effect on the Long-tailed duck population at regional or global scale.</p> <p>As a consequence, <b>the completion of the Project will not generate significant adverse effect on Long-tailed duck population (which is the most abundant species in the area).</b></p> <p>In terms of the (critical) habitat of the Long-tailed Duck, the project will lead to measurable, permanent loss of 0.6% of the EAAA. However, this area consists of suboptimal habitat (see above). As a consequence, <b>the completion of the Project is unlikely to lead to significant, adverse effect on the entire extent of the critical habitat of the species within EAAA.</b></p>	<p>May (at least 10 controls)</p> <ul style="list-style-type: none"> <li>- <b>Migratory</b> birds monitoring within the OWF will be conducted in 1<sup>st</sup> and 3<sup>rd</sup> year after completion of each part of the OWF, and in 5<sup>th</sup> year after completion of the whole project;</li> <li>- Monitoring must be performed twice in each season (spring, autumn; at least 10 days/season, night and day, using radar, visual and acoustic observations).</li> </ul>
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		<p>of collisions for EIA and/or conditions imposed by the Environmental Authority,</p> <ul style="list-style-type: none"> <li>- Threshold of material increase of collisions will be for bird species indicated in CHA as Critical Habitat/Priority Biodiversity Features,</li> <li>- The details of the system including the criteria/thresholds for the system to shutdown/slowdown will be detailed and implemented via the Biodiversity Management Plan which shall not be in contradiction with the requirements imposed by the Environmental Authority. This detailed description will inter alia include parameters of bird (species, size of flock, conservation status) and parameters of shut down/slow down (to which speed)</li> </ul> <p>Each shutdown/slowdown event triggered by the BMP requirements (shutdown/slowdown parameters met) must be subject to prompt reporting to Lenders within the quarterly E&amp;S self-monitoring reports.</p> <p>In the event shutdown/slowdown criteria in the BMP are triggered, and shutdown/slowdown is <b>not</b> activated potentially resulting in bird collisions, such failure will be considered an incident and shall be reported to Lenders, in accordance with the requirements outlined in the CTA, and to the Environmental Authority, along with a brief explanation for the failure to activate</p>		
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		a shutdown/slowdown. Lenders at their sole discretion will have the right to request a more detailed investigation and/or preparation of a Corrective Action Plan (CAP) in the event of each material incident		
Velvet scoter <i>Melanitta fusca</i>	<p>Sea ducks in general have been proved to have high collision avoidance rate with wind turbines (even 99,3 - 99,9% Desholm et al, 2005). As a consequence, the OWF installation will not be linked with significant additional mortality of the species – the mortality modelling performed for Environmental Impact Assessment indicated OWF-induced mortality at the level of 0-1 individuals per year, which is negligible on local, regional and global scale in case of Long-tailed duck.</p> <p>However, sea ducks strongly avoid the area of operating OWFs; the avoidance spans for up to 2 km from the edge of an operating OWF, while in surrounding waters farther away, bird densities tend to increase (Petersen et al., 2006; Dierschke et al., 2016). This phenomenon concerns both flights during migration as well as resting/foraging on the sea surface. As a consequence, migrating sea ducks will modify their route to avoid the OWF, and the area between the wind turbines will</p>	<p>The Environmental Decision imposed the following mitigation procedures to minimize the impact on seabirds using the OWF as well as the neighbouring N2000 area Ławica Słupska as migration corridor/wintering habitat.</p> <p>First, the original span of the OWF area was modified to fulfill the requirement of keeping the OWF at least 2 km from the edge of N2000 Słupska site. This is in line with published research on displacement of marine ducks by operating OWFs (Dierschke et al., 2016).</p> <p>Second, the original extent of the OWF area was modified to keep a 5-km wide, open corridor between 2 subunits of the OWF (i.e. Baltica 2, Baltica 3). The corridor should enable birds to migrate freely to and from the north-east to reach the N2000 site Ławica Słupska.</p>	<p>The project will not lead to excess mortality of the species, as the levels of mortality generated by wind turbines will be negligible at the population level due to high avoidance of wind turbines by the species.</p> <p>The project will induce minor changes in the flight trajectory during migration due to avoidance of wind farms by the species.. This will be mitigated by creating a 5-km wide migration corridor between the two units of the OWF, as well as moving the OWF turbines from the edge of N2000 site Ławica Słupska, which is a critical habitat for sea ducks.</p> <p>The project will generate local displacement from foraging/resting areas on sea surface. This will be mitigated by moving the OWF turbines 2 km from the edge of N2000 site Ławica Słupska, to minimize the impact on birds using the N2000 area for wintering. Nevertheless, the birds currently using the OWF+2 km zone for winter foraging will be permanently displaced after completion of the project (wintering habitat loss).</p>	<p>The Environmental Decision imposes the following monitoring procedures regarding seabirds and migratory birds within the constructed OWF:</p> <ul style="list-style-type: none"> <li>- <b>seabird</b> monitoring within the OWF will be conducted in 1<sup>st</sup> and 2<sup>nd</sup> year after completion of each part of the OWF, within the OWF as well as N2000 Ławica Słupska</li> <li>- After that, additional monitoring will be conducted in 4<sup>th</sup> and 5<sup>th</sup> year;</li> <li>- The monitoring must include flight altitude, airspace</li> </ul>

	<p>be excluded as resting/foraging areas for the species.</p> <p>In case of exclusion during migration flights, it will impose some energetic costs for the birds (which will change their route to avoid OWF); however, that effect is unlikely to be significant – modelling approaches performed for the Environmental Impact Assessment show that for seaducks migrating between the Baltic Sea and their breeding grounds in the Arctic, the additional energetic costs of avoiding the OWF area are at level of below 1% of total energetic costs of migration (route increased by 12,3 km). Therefore, that impact was assessed as minor. However, its effect can be mitigated (see Mitigation)</p> <p>In case of exclusion from resting/foraging habitats during winter, wintering and resting sea ducks will be displaced from the OWF area and +/- 2 km from its surroundings. This impact was assessed as minor or medium (depending on the seaduck species, with medium for Long-tailed duck and minor for Velvet scoter). However, its effect can be mitigated (see Mitigation).</p> <p>In case of offshore CI, the negative impact of the Project will be temporary, limited to short-time displacement of birds during construction works. As macrozoobenthic communities (i.e. food source for seaducks) along the undersea</p>	<p>Third, construction works that require piling (and lead to noise pollution) will not be performed between 1st November and 30th April, to avoid disturbing wintering/migrating birds. In the same period of time, vessels engaged in construction works are prevented from entering N2000 Ławica Słupska.</p> <p>Fourth, the construction of wind turbine towers is required to be tubular instead of lattice, to reduce the potential bird collisions.</p> <p>Fifth, The monitoring and WTG shut-down system will ensure adequate spatial coverage to cover the entire OWF with radar and all perimeters covered with cameras and the ability to operate (identify target species) in adverse weather conditions and at night</p> <ul style="list-style-type: none"> <li>- WTG shut-down system will include: radar, set of day and night cameras and identification system,</li> <li>- Specifications of scenario which will trigger shut-down procedure will be prepared in between Project, Lenders and LIESC,</li> <li>- The trigger for creation of such specifications will be material increase in collisions compared with modelled number</li> </ul>	<p>However, the OWF area provides only suboptimal winter foraging habitat for the species, as it prefers water up to 20-30 m deep (diving deeper in search for food is less profitable in context of energetic costs), while 94% of the OWF area is deeper than 30 m. Consistently, the numbers and densities of Velvet scoters observed on water surface within the OWF area+2nm buffer zone were consistently lower (by an order of magnitude) than within the SPA/SAC PLC990001 Ławica Słupska (i.e. 7 birds vs. 3,131 birds). As a consequence, displacement of a small but measurable fraction of the wintering population towards optimal habitats located in immediate vicinity of the Project should not translate to significant adverse effect on the Velvet scoter population at regional or global scale.</p> <p>As a consequence, <b>the completion of the Project will not generate significant adverse effect on Velvet scoter population wintering in the Baltic Sea.</b></p> <p>In terms of the (critical) habitat of the Velvet scoter, the project will lead to permanent loss of 0.6% of the EAAA. However, this area consists of suboptimal habitat (see above). As a consequence, <b>the completion of the Project is unlikely to lead to significant, adverse effect on the entire extent of the critical habitat of the species within EAAA.</b></p>	<p>use intensity, flight direction;</p> <ul style="list-style-type: none"> <li>- Seabird monitoring must be performed from September to May (at least 10 controls)</li> <li>- <b>Migratory</b> birds monitoring within the OWF will be conducted in 1<sup>st</sup> and 3<sup>rd</sup> year after completion of each part of the OWF, and in 5<sup>th</sup> year after completion of the whole project;</li> </ul> <p>Monitoring must be performed twice in each season (spring, autumn; at least 10 days/season, night and day, using radar, visual and acoustic observations).</p>
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	<p>cable are expected to recover after a few seasons, no long-term negative effects of offshore CI are expected.</p>	<p>of collisions for EIA and/or conditions imposed by the Environmental Authority,</p> <ul style="list-style-type: none"> <li>- Threshold of material increase of collisions will be for bird species indicated in CHA as Critical Habitat/Priority Biodiversity Features,</li> <li>- The details of the system including the criteria/thresholds for the system to shutdown/slowdown will be detailed and implemented via the Biodiversity Management Plan which shall not be in contradiction with the requirements imposed by the Environmental Authority. This detailed description will inter alia include parameters of bird (species, size of flock, conservation status) status and parameters of shut down/slow down (to which speed)</li> </ul> <p>Each shutdown/slowdown event triggered by the BMP requirements (shutdown/slowdown parameters met) must be subject to prompt reporting to Lenders within the quarterly E&amp;S self-monitoring reports.</p> <p>In the event shutdown/slowdown criteria in the BMP are triggered, and shutdown/slowdown is <b>not</b> activated potentially resulting in bird collisions, such failure will be considered an incident and shall be reported to Lenders, in accordance with the requirements outlined in the CTA, and to the Environmental Authority, along with</p>		
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		a brief explanation for the failure to activate a shutdown/slowdown. Lenders at their sole discretion will have the right to request a more detailed investigation and/or preparation of a Corrective Action Plan (CAP) in the event of each material incident		
Common scoter <i>Melanitta nigra</i>	<p>Sea ducks in general have been proved to have high collision avoidance rate with wind turbines (even 99,3 - 99,9% Desholm et al, 2005). As a consequence, the OWF installation will not be linked with significant additional mortality of the species – the mortality modelling performed for Environmental Impact Assessment indicated OWF-induced mortality at the level of 0-1 individuals per year, which is negligible on local, regional and global scale in case of Long-tailed duck.</p> <p>However, sea ducks strongly avoid the area of operating OWFs; the avoidance spans for up to 2 km from the edge of an operating OWF, while in surrounding waters farther away, bird densities tend to increase (Petersen et al., 2006; Dierschke et al., 2016). This phenomenon concerns both flights during migration as well as resting/foraging on the sea surface. As a consequence, migrating sea ducks will modify their route to avoid the OWF, and the area between the wind turbines will</p>	<p>The Environmental Decision imposed the following mitigation procedures to minimize the impact seabirds using the OWF as well as the neighbouring N2000 area Ławica Słupska as migration corridor/wintering habitat.</p> <p>First, the original span of the OWF area was modified to fulfill the requirement of keeping the OWF at least 2 km from the edge of N2000 Słupska site. This is in line with published research on displacement of marine ducks by operating OWFs (Dierschke et al., 2016).</p> <p>Second, the original extent of the OWF area was modified to keep a 5-km wide, open corridor between 2 subunits of the OWF (i.e. Baltica 2, Baltica 3). The corridor should enable birds to migrate freely to and from the north-east to reach the N2000 site Ławica Słupska.</p> <p>Third, construction works that require piling (and lead to noise pollution) will not be</p>	<p>The project will not lead to excess mortality of the species, as the levels of mortality generated by wind turbines will be negligible at the population level due to high avoidance of wind turbines by the species.</p> <p>The project will induce minor changes in the flight trajectory during migration. This will be mitigated by creating a 5-km wide migration corridor between the two units of the OWF, as well as moving the OWF turbines from the edge of N2000 site Ławica Słupska, which is a critical habitat for sea ducks.</p> <p>The project will generate local displacement from foraging/resting areas on sea surface. This will be mitigated by moving the OWF turbines 2 km from the edge of N2000 site Ławica Słupska, to minimize the impact on birds using the N2000 area for wintering. Nevertheless, the birds currently using the OWF+2 km zone for winter foraging will be permanently displaced after completion of the project (wintering habitat loss). However, the OWF area provides only suboptimal winter foraging habitat for the species, as it</p>	<p>The Environmental Decision imposes the following monitoring procedures regarding seabirds and migratory birds within the constructed OWF:</p> <ul style="list-style-type: none"> <li>- <b>seabird</b> monitoring within the OWF will be conducted in 1<sup>st</sup> and 2<sup>nd</sup> year after completion of each part of the OWF, within the OWF as well as N2000 Ławica Słupska</li> <li>- After that, additional monitoring will be conducted in 4<sup>th</sup> and 5<sup>th</sup> year;</li> <li>- The monitoring must include flight altitude, airspace</li> </ul>



	<p>be excluded as resting/foraging areas for the species.</p> <p>In case of exclusion during migration flights, it will impose some energetic costs for the birds (which will change their route to avoid OWF); however, that effect is unlikely to be significant – modelling approaches performed for the Environmental Impact Assessment show that for seaducks migrating between the Baltic Sea and their breeding grounds in the Arctic, the additional energetic costs of avoiding the OWF area are at level of below 1% of total energetic costs of migration (route increased by 12,3 km). Therefore, that impact was assessed as minor. However, its effect can be mitigated (see Mitigation)</p> <p>In case of exclusion from resting/foraging habitats during winter, wintering and resting sea ducks will be displaced from the OWF area and +/- 2 km from its surroundings. This impact was assessed as minor or medium (depending on the seaduck species, with medium for Long-tailed duck and minor for Velvet scoter). However, its effect can be mitigated (see Mitigation).</p> <p>In case of offshore CI, the negative impact of the Project will be temporary, limited to short-time displacement of birds during construction works. As macrozoobenthic communities (i.e. food source for seaducks) along the undersea</p>	<p>performed between 1st November and 30th April, to avoid disturbing wintering/migrating birds. In the same period of time, vessels engaged in construction works are prevented from entering N2000 Ławica Słupska.</p> <p>Fourth, the construction of wind turbine towers is required to be tubular instead of lattice, to reduce the potential bird collisions.</p> <p>Fifth, The monitoring and WTG shut-down system will ensure adequate spatial coverage to cover the entire OWF with radar and all perimeters covered with cameras and the ability to operate (identify target species) in adverse weather conditions and at night</p> <ul style="list-style-type: none"> <li>- WTG shut-down system will include: radar, set of day and night cameras and identification system,</li> <li>- Specifications of scenario which will trigger shut-down procedure will be prepared in between Project, Lenders and LIESC,</li> <li>- The trigger for creation of such specifications will be material increase in collisions compared with modelled number of collisions for EIA and/or conditions imposed by the Environmental Authority,</li> </ul>	<p>prefers water up to 20-30 m deep (diving deeper in search for food is less profitable in context of energetic costs), while 94% of the OWF area is deeper than 30 m. Consistently, the numbers and densities of Common scoters observed on water surface within the OWF area+2nm buffer zone were consistently lower (by an order of magnitude) than within the SPA/SAC PLC990001 Ławica Słupska (i.e. 3 birds vs. 451 birds). As a consequence, displacement of a small but measurable fraction of the wintering population towards optimal habitats located in immediate vicinity of the Project should not translate to significant adverse effect on the Common scoter population at regional or global scale.</p> <p>As a consequence, <b>the completion of the Project will not generate significant adverse effect on Common scoter population wintering in the Baltic Sea.</b></p> <p>In terms of the (critical) habitat of the Common scoter, the project will lead to measurable, permanent loss of 0.6% of the EAAA. However, this area consists of suboptimal habitat (see above). As a consequence, <b>the completion of the Project is unlikely to lead to significant, adverse effect on the entire extent of the critical habitat of the species within EAAA.</b></p>	<p>use intensity, flight direction;</p> <ul style="list-style-type: none"> <li>- Seabird monitoring must be performed from September to May (at least 10 controls)</li> <li>- <b>Migratory</b> birds monitoring within the OWF will be conducted in 1<sup>st</sup> and 3<sup>rd</sup> year after completion of each part of the OWF, and in 5<sup>th</sup> year after completion of the whole project;</li> </ul> <p>Monitoring must be performed twice in each season (spring, autumn; at least 10 days/season, night and day, using radar, visual and acoustic observations).</p>
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	<p>cable are expected to recover after a few seasons, no long-term negative effects of offshore CI are expected.</p>	<ul style="list-style-type: none"> <li>- Threshold of material increase of collisions will be for bird species indicated in CHA as Critical Habitat/Priority Biodiversity Features,</li> <li>- The details of the system including the criteria/thresholds for the system to shutdown/slowdown will be detailed and implemented via the Biodiversity Management Plan which shall not be in contradiction with the requirements imposed by the Environmental Authority. This detailed description will inter alia include parameters of bird (species, size of flock, conservation status) status) and parameters of shut down/slow down (to which speed)</li> </ul> <p>Each shutdown/slowdown event triggered by the BMP requirements (shutdown/slowdown parameters met) must be subject to prompt reporting to Lenders within the quarterly E&amp;S self-monitoring reports.</p> <p>In the event shutdown/slowdown criteria in the BMP are triggered, and shutdown/slowdown is <b>not</b> activated potentially resulting in bird collisions, such failure will considered an incident and shall be reported to Lenders, in accordance with the requirements outlined in the CTA, and to the Environmental Authority, along with a brief explanation for the failure to activate a shutdown/slowdown. Lenders at their sole discretion will have the right to request a</p>		
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		more detailed investigation and/or preparation of a Corrective Action Plan (CAP) in the event of each material incident		
Black-throated loon (Arctic loon) <i>Gavia arctica</i>	<p>Both loon species are strongly affected by OWFs through displacement – birds avoid areas around the operating OWFs (Mendel et al., 2019). This may negatively affect individual fitness due to increased competition for resources and increased energy expenditure, which in turn could negatively affect population size in the long term. However, population modelling suggest that long-term negative impact on population numbers is unlikely, and it should not exceed 2% (Topping &amp; Petersen, 2011)</p> <p>In terms of collisions, their collision rate is ranked as average, as they rarely fly at the OWF blade height (Furness et al., 2013).</p>	<p>The Environmental Decision imposes the following mitigation procedures to minimize the impact seabirds using the OWF as well as the neighbouring N2000 area Ławica Słupska as migration corridor/wintering habitat.</p> <p>First, the original span of the OWF area was modified to fulfill the requirement of keeping the OWF at least 2 km from the edge of N2000 Słupska site.</p> <p>Second, the original extent of the OWF area was modified to keep a 5-km wide, open corridor between 2 subunits of the OWF (i.e. Baltica 2, Baltica 3). The corridor should enable birds to migrate freely to and from the north-east to reach the N2000 site Ławica Słupska.</p> <p>Third, construction works that require piling (and lead to noise pollution) will not be performed between 1st November and 30th April, to avoid disturbing wintering/migrating birds. In the same period of time, vessels engaged in construction works are prevented from entering N2000 Ławica Słupska.</p>	<p>The project will not lead to excess mortality of the species, as the levels of mortality generated by wind turbines will be negligible at the population level due to high avoidance of wind turbines by the species.</p> <p>The project will induce minor changes in the flight trajectory during migration. This will be mitigated by creating a 5-km wide migration corridor between the two units of the OWF, as well as moving the OWF turbines from the edge of N2000 site Ławica Słupska.</p> <p>The project will generate local displacement from foraging/resting areas on sea surface. This will be mitigated by moving the OWF turbines 2 km from the edge of N2000 site Ławica Słupska, to minimize the impact on birds using the N2000 area for wintering. Nevertheless, the birds currently using the OWF and its vicinity for winter foraging will be permanently displaced after completion of the project (wintering habitat loss). However, the number of Black-throated loons observed on water surface during winter within either OWF+2nm zone or N2000 Ławica Słupska was very small (15 vs. 32 individuals, respectively).</p>	<p>The Environmental Decision imposes the following monitoring procedures regarding seabirds and migratory birds within the constructed OWF:</p> <ul style="list-style-type: none"> <li>- <b>seabird</b> monitoring within the OWF will be conducted in 1<sup>st</sup> and 2<sup>nd</sup> year after completion of each part of the OWF, within the OWF as well as N2000 Ławica Słupska</li> <li>- After that, additional monitoring will be conducted in 4<sup>th</sup> and 5<sup>th</sup> year;</li> <li>- The monitoring must include flight altitude, airspace use intensity, flight direction;</li> <li>- Seabird monitoring must be performed from September to</li> </ul>

		<p>Fourth, the construction of wind turbine towers is required to be tubular instead of lattice, to reduce the potential bird collisions.</p> <p>Fifth, The monitoring and WTG shut-down system will ensure adequate spatial coverage to cover the entire OWF with radar and all perimeters covered with cameras and the ability to operate (identify target species) in adverse weather conditions and at night</p> <ul style="list-style-type: none"> <li>- WTG shut-down system will include: radar, set of day and night cameras and identification system,</li> <li>- Specifications of scenario which will trigger shut-down procedure will be prepared in between Project, Lenders and LIESC,</li> <li>- The trigger for creation of such specifications will be material increase in collisions compared with modelled number of collisions for EIA and/or conditions imposed by the Environmental Authority,</li> <li>- Threshold of material increase of collisions will be for bird species indicated in CHA as Critical Habitat/Priority Biodiversity Features,</li> <li>- The details of the system including the criteria/thresholds for the system to shutdown/slowdown will be detailed and</li> </ul>	<p>As a consequence, displacement of a small but measurable fraction of the wintering population towards should not translate to significant adverse effect on the Black-throated loon population at regional or global scale. Therefore, <b>the completion of the Project will not generate significant adverse effect on Black-throated loon populations.</b></p> <p>In terms of the (critical) habitat of the Black-throated Loon, the project will lead to measurable, permanent loss of 0.6% of the EAAA. Such fraction is negligible, especially that the species seems to be present in the area in very low numbers. As a consequence, <b>the completion of the Project is unlikely to lead to significant, adverse effect on the entire extent of the critical habitat of the species within EAAA.</b></p>	<p>May (at least 10 controls)</p> <ul style="list-style-type: none"> <li>- <b>Migratory</b> birds monitoring within the OWF will be conducted in 1<sup>st</sup> and 3<sup>rd</sup> year after completion of each part of the OWF, and in 5<sup>th</sup> year after completion of the whole project;</li> </ul> <p>Monitoring must be performed twice in each season (spring, autumn; at least 10 days/season, night and day, using radar, visual and acoustic observations).</p>
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		<p>implemented via the Biodiversity Management Plan which shall not be in contradiction with the requirements imposed by the Environmental Authority. This detailed description will inter alia include parameters of bird (species, size of flock, conservation status) status) and parameters of shut down/slow down (to which speed)</p> <p>Each shutdown/slowdown event triggered by the BMP requirements (shutdown/slowdown parameters met) must be subject to prompt reporting to Lenders within the quarterly E&amp;S self-monitoring reports.</p> <p>In the event shutdown/slowdown criteria in the BMP are triggered, and shutdown/slowdown is <b>not</b> activated potentially resulting in bird collisions, such failure will be considered an incident and shall be reported to Lenders, in accordance with the requirements outlined in the CTA, and to the Environmental Authority, along with a brief explanation for the failure to activate a shutdown/slowdown. Lenders at their sole discretion will have the right to request a more detailed investigation and/or preparation of a Corrective Action Plan (CAP) in the event of each material incident</p>		
Red-throated loon <i>Gavia stellata</i>	Both loon species are strongly affected by OWFs through displacement – birds avoid areas up to 16 km from the	The Environmental Decision imposes the following mitigation procedures to minimize the impact seabirds using the OWF as well	The project will not lead to excess mortality of the species, as the levels of mortality generated by wind turbines will be negligible at the	The Environmental Decision imposes the following monitoring

	<p>operating OWFs (Mendel et al., 2019). This may negatively affect individual fitness due to increased competition for resources and increased energy expenditure, which in turn could negatively affect population size in the long term. However, population modelling suggest that long-term negative impact on population numbers is unlikely, and it should not exceed 2% (Topping &amp; Petersen, 2011)</p> <p>In terms of collisions, their collision rate is ranked as average, as they rarely fly at the OWF blade height (Furness et al., 2013).</p>	<p>as the neighbouring N2000 area Ławica Słupska as migration corridor/wintering habitat.</p> <p>First, the original span of the OWF area was modified to fulfill the requirement of keeping the OWF at least 2 km from the edge of N2000 Słupska site. This is in line with published research on displacement of marine ducks by operating OWFs (Dierschke et al., 2016).</p> <p>Second, the original extent of the OWF area was modified to keep a 5-km wide, open corridor between 2 subunits of the OWF (i.e. Baltica 2, Baltica 3). The corridor should enable birds to migrate freely to and from the north-east to reach the N2000 site Ławica Słupska.</p> <p>Third, construction works that require piling (and lead to noise pollution) will not be performed between 1st November and 30th April, to avoid disturbing wintering/migrating birds. In the same period of time, vessels engaged in construction works are prevented from entering N2000 Ławica Słupska.</p> <p>Fourth, the construction of wind turbine towers is required to be tubular instead of lattice, to reduce the potential bird collisions.</p>	<p>population level due to high avoidance of wind turbines by the species.</p> <p>The project will induce minor changes in the flight trajectory during migration. This will be mitigated by creating a 5-km wide migration corridor between the two units of the OWF, as well as moving the OWF turbines from the edge of N2000 site Ławica Słupska.</p> <p>The project will generate local displacement from foraging/resting areas on sea surface. This will be mitigated by moving the OWF turbines 2 km from the edge of N2000 site Ławica Słupska, to minimize the impact on birds using the N2000 area for wintering. Nevertheless, the birds currently using the OWF and its vicinity for winter foraging will be permanently displaced after completion of the project (wintering habitat loss). However, the number of Red-throated loons observed on water surface during winter within both OWF+2nm zone or N2000 Ławica Słupska was very small (5 individuals in total).</p> <p>As a consequence, displacement of a small but measurable fraction of the wintering population towards should not translate to measurable adverse effect on the Red-throated loon population at regional or global scale. Therefore, <b>the completion of the Project will not generate significant adverse effect on Red-throated loon populations.</b></p>	<p>procedures regarding seabirds and migratory birds within the constructed OWF:</p> <ul style="list-style-type: none"> <li>- <b>seabird</b> monitoring within the OWF will be conducted in 1<sup>st</sup> and 2<sup>nd</sup> year after completion of each part of the OWF, within the OWF as well as N2000 Ławica Słupska</li> <li>- After that, additional monitoring will be conducted in 4<sup>th</sup> and 5<sup>th</sup> year;</li> <li>- The monitoring must include flight altitude, airspace use intensity, flight direction;</li> <li>- Seabird monitoring must be performed from September to May (at least 10 controls)</li> <li>- <b>Migratory</b> birds monitoring within the OWF will be conducted in 1<sup>st</sup> and 3<sup>rd</sup> year after completion of each part of the OWF,</li> </ul>
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		<p>Fifth, The monitoring and WTG shut-down system will ensure adequate spatial coverage to cover the entire OWF with radar and all perimeters covered with cameras and the ability to operate (identify target species) in adverse weather conditions and at night</p> <ul style="list-style-type: none"> <li>- WTG shut-down system will include: radar, set of day and night cameras and identification system,</li> <li>- Specifications of scenario which will trigger shut-down procedure will be prepared in between Project, Lenders and LIESC,</li> <li>- The trigger for creation of such specifications will be material increase in collisions compared with modelled number of collisions for EIA and/or conditions imposed by the Environmental Authority,</li> <li>- Threshold of material increase of collisions will be for bird species indicated in CHA as Critical Habitat/Priority Biodiversity Features,</li> <li>- The details of the system including the criteria/thresholds for the system to shutdown/slowdown will be detailed and implemented via the Biodiversity Management Plan which shall not be in contradiction with the requirements imposed by the Environmental Authority. This detailed description will inter alia</li> </ul>	<p>In terms of the (critical) habitat of the Red-throated Loon, the project will lead to measurable, permanent loss of 0.6% of the EAAA. Such fraction is negligible, especially that the species seems to be present in the area in very low numbers. As a consequence, <b>the completion of the Project is unlikely to lead to significant, adverse effect on the entire extent of the critical habitat of the species within EAAA.</b></p>	<p>and in 5<sup>th</sup> year after completion of the whole project; Monitoring must be performed twice in each season (spring, autumn; at least 10 days/season, night and day, using radar, visual and acoustic observations).</p>
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		<p>include parameters of bird (species, size of flock, conservation status) status) and parameters of shut down/slow down (to which speed)</p> <p>Each shutdown/slowdown event triggered by the BMP requirements (shutdown/slowdown parameters met) must be subject to prompt reporting to Lenders within the quarterly E&amp;S self-monitoring reports.</p> <p>In the event shutdown/slowdown criteria in the BMP are triggered, and shutdown/slowdown is <b>not</b> activated potentially resulting in bird collisions, such failure will be considered an incident and shall be reported to Lenders, in accordance with the requirements outlined in the CTA, and to the Environmental Authority, along with a brief explanation for the failure to activate a shutdown/slowdown. Lenders at their sole discretion will have the right to request a more detailed investigation and/or preparation of a Corrective Action Plan (CAP) in the event of each material incident</p>		
Common Teal <i>Anas crecca</i>	That species crosses the Project area during migration, but does not use habitats within the Aol of the Project for resting, foraging etc. As a consequence, the potential impacts are limited to collisions and displacement (i.e. induced change on the migration route).	<p>The Environmental Decision imposes the following mitigation procedures to minimize the impact on birds using the OWF as well as the neighbouring N2000 area Ławica Słupska as migration corridor.</p> <p>First, the original extent of the OWF area was modified to keep a 5-km wide, open</p>	<p>The project will not lead to excess mortality of the species, as the levels of mortality generated by wind turbines will be negligible at the population level due to high avoidance of wind turbines by the species.</p> <p>The project will induce measurable but minor changes in the flight trajectory during migration.</p>	The Environmental Decision imposes the following monitoring procedures regarding seabirds and migratory birds within the constructed OWF:

	<p>Duck general have been proved to have high collision avoidance rate with wind turbines (even 99,3 - 99,9% Desholm et al, 2005). As a consequence, the OWF installation will not be linked with significant additional mortality of the species – the mortality modelling performed for Environmental Impact Assessment indicated OWF-induced mortality at the level of less than 1 individual per year, which is negligible on local, regional and global scale in case of that species.</p> <p>In case of exclusion during migration flights, it will impose some energetic costs for the birds (which will change their route to avoid OWF); however, that effect is unlikely to be significant – modelling approaches performed for the Environmental Impact Assessment show that for seaducks migrating between the Baltic Sea and their breeding grounds in the Arctic, the additional energetic costs of avoiding the OWF area are at level of below 1% of total energetic costs of migration (route increased by 12,3 km). Therefore, that impact was assessed as negligible for that very common species of duck., This effect can be mitigated (see Mitigation)</p>	<p>corridor between 2 subunits of the OWF (i.e. Baltica 2, Baltica 3). The corridor should enable birds to migrate freely to and from the north-east to reach the N2000 site Ławica Słupska.</p> <p>Third, construction works that require piling (and lead to noise pollution) will not be performed between 1st November and 30th April, to avoid disturbing wintering/migrating birds. In the same period of time, vessels engaged in construction works are prevented from entering N2000 Ławica Słupska.</p> <p>Fourth, the construction of wind turbine towers is required to be tubular instead of lattice, to reduce the potential bird collisions.</p> <p>Fifth, The monitoring and WTG shut-down system will ensure adequate spatial coverage to cover the entire OWF with radar and all perimeters covered with cameras and the ability to operate (identify target species) in adverse weather conditions and at night</p> <p>- WTG shut-down system will include: radar, set of day and night cameras and identification system,</p> <p>- Specifications of scenario which will trigger shut-down procedure will be</p>	<p>This will be mitigated by creating a 5-km wide migration corridor between the two units of the OWF. As a consequence, <b>the completion of the Project will not generate significant adverse effect on populations of Common teal.</b></p> <p>In terms of the (critical) habitat of the species, the Project encroaches only a measurable but negligible fraction of the EAAA (0.6%) Importantly, the majority of the Project area is located offshore, ie. within areas that are used for migration only, and are not part of the species' core habitats. As a consequence, the <b>project will not lead to significant, adverse effect in critical habitat of the species.</b></p>	<ul style="list-style-type: none"> <li>- <b>seabird</b> monitoring within the OWF will be conducted in 1<sup>st</sup> and 2<sup>nd</sup> year after completion of each part of the OWF, within the OWF as well as N2000 Ławica Słupska</li> <li>- After that, additional monitoring will be conducted in 4<sup>th</sup> and 5<sup>th</sup> year;</li> <li>- The monitoring must include flight altitude, airspace use intensity, flight direction;</li> <li>- Seabird monitoring must be performed from September to May (at least 10 controls)</li> <li>- <b>Migratory</b> birds monitoring within the OWF will be conducted in 1<sup>st</sup> and 3<sup>rd</sup> year after completion of each part of the OWF, and in 5<sup>th</sup> year after completion of the whole project;</li> </ul> <p>Monitoring must be performed twice in each</p>
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		<p>prepared in between Project, Lenders and LIESC,</p> <ul style="list-style-type: none"> <li>- The trigger for creation of such specifications will be material increase in collisions compared with modelled number of collisions for EIA and/or conditions imposed by the Environmental Authority,</li> <li>- Threshold of material increase of collisions will be for bird species indicated in CHA as Critical Habitat/Priority Biodiversity Features,</li> <li>- The details of the system including the criteria/thresholds for the system to shutdown/slowdown will be detailed and implemented via the Biodiversity Management Plan which shall not be in contradiction with the requirements imposed by the Environmental Authority. This detailed description will inter alia include parameters of bird (species, size of flock, conservation status) status) and parameters of shut down/slow down (to which speed)</li> </ul> <p>Each shutdown/slowdown event triggered by the BMP requirements (shutdown/slowdown parameters met) must be subject to prompt reporting to Lenders within the quarterly E&amp;S self-monitoring reports.</p> <p>In the event shutdown/slowdown criteria in the BMP are triggered, and shutdown/slowdown is <b>not</b> activated</p>		<p>season (spring, autumn; at least 10 days/season, night and day, using radar, visual and acoustic observations).</p>
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		potentially resulting in bird collisions, such failure will be considered an incident and shall be reported to Lenders, in accordance with the requirements outlined in the CTA, and to the Environmental Authority, along with a brief explanation for the failure to activate a shutdown/slowdown. Lenders at their sole discretion will have the right to request a more detailed investigation and/or preparation of a Corrective Action Plan (CAP) in the event of each material incident		
Greater Scaup <i>Aythya marila</i>	<p>Sea ducks in general have been proved to have high collision avoidance rate with wind turbines (even 99,3 - 99,9% Desholm et al, 2005). As a consequence, the OWF installation will not be linked with significant additional mortality of the species – the mortality modelling performed for Environmental Impact Assessment indicated OWF-induced mortality at the level of 0-1 individuals per year, which is negligible on local, regional and global scale in case of Long-tailed duck.</p> <p>However, sea ducks strongly avoid the area of operating OWFs; the avoidance spans for up to 2 km from the edge of an operating OWF, while in surrounding waters farther away, bird densities tend to increase (Petersen et al., 2006; Dierschke et al., 2016). This phenomenon concerns both flights during migration as well as resting/foraging on the sea surface. As a</p>	<p>The Environmental Decision imposed the following mitigation procedures to minimize the impact on long-tailed ducks using the OWF as well as the neighbouring N2000 area Ławica Słupska as a migration corridor.</p> <p>First, the original span of the OWF area was modified to fulfill the requirement of keeping the OWF at least 2 km from the edge of N2000 Słupska site. This is in line with published research on displacement of marine ducks by operating OWFs (Dierschke et al., 2016).</p> <p>Second, the original extent of the OWF area was modified to keep a 5-km wide, open corridor between 2 subunits of the OWF (i.e. Baltica 2, Baltica 3). The corridor should enable birds to migrate freely to and from the north-east to reach the N2000 site Ławica Słupska.</p>	<p>The project will not lead to excess mortality of the species, as the levels of mortality generated by wind turbines will be negligible at the population level due to high avoidance of wind turbines by the species.</p> <p>The project will induce measurable but minor changes in the flight trajectory during migration. This will be mitigated by creating a 5-km wide migration corridor between the two units of the OWF.</p> <p>As a consequence, <b>the completion of the Project will not generate significant adverse effect on Great scaup populations.</b></p> <p>In terms of the (critical) habitat of the species, the Project encroaches a measurable but minor fraction of the EAAA (0.6%). Importantly, the majority of the Project area is located offshore, i.e. within areas that are used for</p>	<p>The Environmental Decision imposes the following monitoring procedures regarding seabirds and migratory birds within the constructed OWF:</p> <ul style="list-style-type: none"> <li>- <b>seabird</b> monitoring within the OWF will be conducted in 1<sup>st</sup> and 2<sup>nd</sup> year after completion of each part of the OWF, within the OWF as well as N2000 Ławica Słupska</li> <li>- After that, additional monitoring will be conducted in 4<sup>th</sup> and 5<sup>th</sup> year;</li> </ul>

	<p>consequence, migrating sea ducks will modify their route to avoid the OWF, and the area between the wind turbines will be excluded as resting/foraging areas for the species.</p> <p>In case of exclusion during migration flights, it will impose some energetic costs for the birds (which will change their route to avoid OWF); however, that effect is unlikely to be significant – modelling approaches performed for the Environmental Impact Assessment show that for seaducks migrating between the Baltic Sea and their breeding grounds in the Arctic, the additional energetic costs of avoiding the OWF area are at level of below 1% of total energetic costs of migration (route increased by 12,3 km). Therefore, that impact was assessed as minor. However, its effect can be mitigated (see Mitigation).</p> <p>In case of Greater scaup, individuals of that species were observed only in flight during migration within the planned OWF, and did not use the area as a wintering/foraging habitat. As a consequence, in contrast to other marine duck species (Long-tailed duck, Velvet scoter, Common scoter), the impact of displacement from wintering/foraging habitats is negligible.</p>	<p>Third, construction works that require piling (and lead to noise pollution) will not be performed between 1st November and 30th April, to avoid disturbing wintering/migrating birds. In the same period of time, vessels engaged in construction works are prevented from entering N2000 Ławica Słupska.</p> <p>Fourth, the construction of wind turbine towers is required to be tubular instead of lattice, to reduce the potential bird collisions.</p> <p>Fifth, The monitoring and WTG shut-down system will ensure adequate spatial coverage to cover the entire OWF with radar and all perimeters covered with cameras and the ability to operate (identify target species) in adverse weather conditions and at night</p> <ul style="list-style-type: none"> <li>- WTG shut-down system will include: radar, set of day and night cameras and identification system,</li> <li>- Specifications of scenario which will trigger shut-down procedure will be prepared in between Project, Lenders and LIESC,</li> <li>- The trigger for creation of such specifications will be material increase in collisions compared with modelled number</li> </ul>	<p>migration only, and are not part of the species' core habitats. As a consequence, the <b>project will not lead to significant, adverse effect in critical habitat of the species.</b></p>	<ul style="list-style-type: none"> <li>- The monitoring must include flight altitude, airspace use intensity, flight direction;</li> <li>- Seabird monitoring must be performed from September to May (at least 10 controls)</li> <li>- <b>Migratory</b> birds monitoring within the OWF will be conducted in 1<sup>st</sup> and 3<sup>rd</sup> year after completion of each part of the OWF, and in 5<sup>th</sup> year after completion of the whole project;</li> </ul> <p>Monitoring must be performed twice in each season (spring, autumn; at least 10 days/season, night and day, using radar, visual and acoustic observations).</p>
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		<p>of collisions for EIA and/or conditions imposed by the Environmental Authority,</p> <ul style="list-style-type: none"> <li>- Threshold of material increase of collisions will be for bird species indicated in CHA as Critical Habitat/Priority Biodiversity Features,</li> <li>- The details of the system including the criteria/thresholds for the system to shutdown/slowdown will be detailed and implemented via the Biodiversity Management Plan which shall not be in contradiction with the requirements imposed by the Environmental Authority. This detailed description will inter alia include parameters of bird (species, size of flock, conservation status) status and parameters of shut down/slow down (to which speed)</li> </ul> <p>Each shutdown/slowdown event triggered by the BMP requirements (shutdown/slowdown parameters met) must be subject to prompt reporting to Lenders within the quarterly E&amp;S self-monitoring reports.</p> <p>In the event shutdown/slowdown criteria in the BMP are triggered, and shutdown/slowdown is <b>not</b> activated potentially resulting in bird collisions, such failure will be considered an incident and shall be reported to Lenders, in accordance with the requirements outlined in the CTA, and to the Environmental Authority, along with</p>		
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		a brief explanation for the failure to activate a shutdown/slowdown. Lenders at their sole discretion will have the right to request a more detailed investigation and/or preparation of a Corrective Action Plan (CAP) in the event of each material incident		
Whooper swan <i>Cygnus cygnus</i>	<p>That species crosses the Project area during migration, but does not use habitats within the Aol of the Project for resting, foraging etc. As a consequence, the potential impacts are limited to collisions and displacement (i.e. induced change on the migration route).</p> <p>Swans in general have been proved to have high collision avoidance rate with wind turbines (Desholm et al, 2005). As a consequence, the OWF installation will not be linked with significant additional mortality of the species – the mortality modelling performed for Environmental Impact Assessment indicated OWF-induced mortality at the level of less than 1 individual per year, which is negligible on local, regional and global scale in case of that species.</p> <p>In case of exclusion during migration flights, it will impose some energetic costs for the birds (which will change their route to avoid OWF); however, that effect is unlikely to be significant – modelling approaches performed for the Environmental Impact Assessment show</p>	<p>The Environmental Decision imposes the following mitigation procedures to minimize the impact on birds using the OWF as well as the neighbouring N2000 area Ławica Słupska as migration corridor/wintering habitat.</p> <p>First, the original span of the OWF area was modified to fulfill the requirement of keeping the OWF at least 2 km from the edge of N2000 Słupska site. This is in line with published research on displacement of marine ducks by operating OWFs (Dierschke et al., 2016).</p> <p>Second, the original extent of the OWF area was modified to keep a 5-km wide, open corridor between 2 subunits of the OWF (i.e. Baltica 2, Baltica 3). The corridor should enable birds to migrate freely to and from the north-east to reach the N2000 site Ławica Słupska.</p> <p>Third, construction works that require piling (and lead to noise pollution) will not be performed between 1st November and</p>	<p>The project will not lead to excess mortality of the species, as the levels of mortality generated by wind turbines will be negligible at the population level.</p> <p>The project will induce measurable but minor changes in the flight trajectory during migration. This will be mitigated by creating a 5-km wide migration corridor between the two units of the OWF.</p> <p>As a consequence, the completion of the Project will not generate significant adverse effect on populations of swans (Whooper swan, Tundra swan, Mute swan).</p> <p>In terms of the (critical) habitat of the species, the Project encroaches only a measurable but minor fraction of the EAAA (0.6%). Importantly, the majority of the Project area is located offshore, ie. within areas that are used for migration only, and are not part of the species' core habitats. As a consequence, the <b>project will not lead to significant, adverse effect in critical habitat of the species.</b></p>	<p>The Environmental Decision imposes the following monitoring procedures regarding seabirds and migratory birds within the constructed OWF:</p> <ul style="list-style-type: none"> <li>- <b>seabird</b> monitoring within the OWF will be conducted in 1<sup>st</sup> and 2<sup>nd</sup> year after completion of each part of the OWF, within the OWF as well as N2000 Ławica Słupska</li> <li>- After that, additional monitoring will be conducted in 4<sup>th</sup> and 5<sup>th</sup> year;</li> <li>- The monitoring must include flight altitude, airspace use intensity, flight direction;</li> </ul>



	<p>that for seaducks migrating between the Baltic Sea and their breeding grounds in the Arctic, the additional energetic costs of avoiding the OWF area are at level of below 1% of total energetic costs of migration (route increased by 12,3 km). Therefore, that impact was assessed as negligible for all swans. This effect can be mitigated (see Mitigation)</p>	<p>30th April, to avoid disturbing wintering/migrating birds. In the same period of time, vessels engaged in construction works are prevented from entering N2000 Ławica Słupska.</p> <p>Fourth, the construction of wind turbine towers is required to be tubular instead of lattice, to reduce the potential bird collisions.</p> <p>Fifth, The monitoring and WTG shut-down system will ensure adequate spatial coverage to cover the entire OWF with radar and all perimeters covered with cameras and the ability to operate (identify target species) in adverse weather conditions and at night</p> <ul style="list-style-type: none"> <li>- WTG shut-down system will include: radar, set of day and night cameras and identification system,</li> <li>- Specifications of scenario which will trigger shut-down procedure will be prepared in between Project, Lenders and LIESC,</li> <li>- The trigger for creation of such specifications will be material increase in collisions compared with modelled number of collisions for EIA and/or conditions imposed by the Environmental Authority,</li> <li>- Threshold of material increase of collisions will be for bird species indicated</li> </ul>		<ul style="list-style-type: none"> <li>- Seabird monitoring must be performed from September to May (at least 10 controls)</li> <li>- <b>Migratory</b> birds monitoring within the OWF will be conducted in 1<sup>st</sup> and 3<sup>rd</sup> year after completion of each part of the OWF, and in 5<sup>th</sup> year after completion of the whole project;</li> </ul> <p>Monitoring must be performed twice in each season (spring, autumn; at least 10 days/season, night and day, using radar, visual and acoustic observations).</p>
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		<p>in CHA as Critical Habitat/Priority Biodiversity Features,</p> <p>- The details of the system including the criteria/thresholds for the system to shutdown/slowdown will be detailed and implemented via the Biodiversity Management Plan which shall not be in contradiction with the requirements imposed by the Environmental Authority. This detailed description will inter alia include parameters of bird (species, size of flock, conservation status) status) and parameters of shut down/slow down (to which speed)</p> <p>Each shutdown/slowdown event triggered by the BMP requirements (shutdown/slowdown parameters met) must be subject to prompt reporting to Lenders within the quarterly E&amp;S self-monitoring reports.</p> <p>In the event shutdown/slowdown criteria in the BMP are triggered, and shutdown/slowdown is <b>not</b> activated potentially resulting in bird collisions, such failure will considered an incident and shall be reported to Lenders, in accordance with the requirements outlined in the CTA, and to the Environmental Authority, along with a brief explanation for the failure to activate a shutdown/slowdown. Lenders at their sole discretion will have the right to request a more detailed investigation and/or preparation of a Corrective Action Plan</p>		
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		(CAP) in the event of each material incident		
<p>Tundra swan <i>Cygnus bewickii</i></p>	<p>That species crosses the Project area during migration, but does not use habitats within the Aol of the Project for resting, foraging etc. As a consequence, the potential impacts are limited to collisions and displacement (i.e. induced change on the migration route).</p> <p>Swans in general have been proved to have high collision avoidance rate with wind turbines (Desholm et al, 2005). As a consequence, the OWF installation will not be linked with significant additional mortality of the species – the mortality modelling performed for Environmental Impact Assessment indicated OWF-induced mortality at the level of less than 1 individual per year, which is negligible on local, regional and global scale in case of that species.</p> <p>In case of exclusion during migration flights, it will impose some energetic costs for the birds (which will change their route to avoid OWF); however, that effect is unlikely to be significant – modelling approaches performed for the Environmental Impact Assessment show that for seaducks migrating between the Baltic Sea and their breeding grounds in the Arctic, the additional energetic costs of avoiding the OWF area are at level of below 1% of total energetic costs of migration (route increased by 12,3 km).</p>	<p>The Environmental Decision imposes the following mitigation procedures to minimize the impact on birds using the OWF as well as the neighbouring N2000 area Ławica Słupska as migration corridor/wintering habitat.</p> <p>First, the original span of the OWF area was modified to fulfill the requirement of keeping the OWF at least 2 km from the edge of N2000 Słupska site. This is in line with published research on displacement of marine ducks by operating OWFs (Dierschke et al., 2016).</p> <p>Second, the original extent of the OWF area was modified to keep a 5-km wide, open corridor between 2 subunits of the OWF (i.e. Baltica 2, Baltica 3). The corridor should enable birds to migrate freely to and from the north-east to reach the N2000 site Ławica Słupska.</p> <p>Third, construction works that require piling (and lead to noise pollution) will not be performed between 1st November and 30th April, to avoid disturbing wintering/migrating birds. In the same period of time, vessels engaged in construction works are prevented from entering N2000 Ławica Słupska.</p>	<p>The project will not lead to excess mortality of the species, as the levels of mortality generated by wind turbines will be negligible at the population level.</p> <p>The project will induce measurable but minor changes in the flight trajectory during migration. This will be mitigated by creating a 5-km wide migration corridor between the two units of the OWF.</p> <p>As a consequence, the completion of the Project will not generate significant adverse effect on populations of swans (Whooper swan, Tundra swan, Mute swan).</p> <p>In terms of the (critical) habitat of the species, the Project encroaches a measurable but minor fraction of the EAAA (0.6%). Importantly, the majority of the Project area is located offshore, ie. within areas that are used for migration only, and are not part of the species' core habitats. As a consequence, the <b>project will not lead to significant, adverse effect in critical habitat of the species.</b></p>	<p>The Environmental Decision imposes the following monitoring procedures regarding seabirds and migratory birds within the constructed OWF:</p> <ul style="list-style-type: none"> <li>- <b>seabird</b> monitoring within the OWF will be conducted in 1<sup>st</sup> and 2<sup>nd</sup> year after completion of each part of the OWF, within the OWF as well as N2000 Ławica Słupska</li> <li>- After that, additional monitoring will be conducted in 4<sup>th</sup> and 5<sup>th</sup> year;</li> <li>- The monitoring must include flight altitude, airspace use intensity, flight direction;</li> <li>- Seabird monitoring must be performed from September to May (at least 10 controls)</li> </ul>

	<p>Therefore, that impact was assessed as negligible for all swans. This effect can be mitigated (see Mitigation)</p>	<p>Fourth, the construction of wind turbine towers is required to be tubular instead of lattice, to reduce the potential bird collisions.</p> <p>Fifth, The monitoring and WTG shut-down system will ensure adequate spatial coverage to cover the entire OWF with radar and all perimeters covered with cameras and the ability to operate (identify target species) in adverse weather conditions and at night</p> <ul style="list-style-type: none"> <li>- WTG shut-down system will include: radar, set of day and night cameras and identification system,</li> <li>- Specifications of scenario which will trigger shut-down procedure will be prepared in between Project, Lenders and LIESC,</li> <li>- The trigger for creation of such specifications will be material increase in collisions compared with modelled number of collisions for EIA and/or conditions imposed by the Environmental Authority,</li> <li>- Threshold of material increase of collisions will be for bird species indicated in CHA as Critical Habitat/Priority Biodiversity Features,</li> <li>- The details of the system including the criteria/thresholds for the system to</li> </ul>		<ul style="list-style-type: none"> <li>- <b>Migratory</b> birds monitoring within the OWF will be conducted in 1<sup>st</sup> and 3<sup>rd</sup> year after completion of each part of the OWF, and in 5<sup>th</sup> year after completion of the whole project;</li> </ul> <p>Monitoring must be performed twice in each season (spring, autumn; at least 10 days/season, night and day, using radar, visual and acoustic observations).</p>
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		<p>shutdown/slowdown will be detailed and implemented via the Biodiversity Management Plan which shall not be in contradiction with the requirements imposed by the Environmental Authority. This detailed description will inter alia include parameters of bird (species, size of flock, conservation status) status) and parameters of shut down/slow down (to which speed)</p> <p>Each shutdown/slowdown event triggered by the BMP requirements (shutdown/slowdown parameters met) must be subject to prompt reporting to Lenders within the quarterly E&amp;S self-monitoring reports.</p> <p>In the event shutdown/slowdown criteria in the BMP are triggered, and shutdown/slowdown is <b>not</b> activated potentially resulting in bird collisions, such failure will considered an incident and shall be reported to Lenders, in accordance with the requirements outlined in the CTA, and to the Environmental Authority, along with a brief explanation for the failure to activate a shutdown/slowdown. Lenders at their sole discretion will have the right to request a more detailed investigation and/or preparation of a Corrective Action Plan (CAP) in the event of each material incident</p>		
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<p>Mute Swan <i>Cygnus olor</i></p>	<p>That species crosses the Project area during migration, but does not use habitats within the Aol of the Project for resting, foraging etc. As a consequence, the potential impacts are limited to collisions and displacement (i.e. induced change on the migration route).</p> <p>Swans in general have been proved to have high collision avoidance rate with wind turbines (Desholm et al, 2005). As a consequence, the OWF installation will not be linked with significant additional mortality of the species – the mortality modelling performed for Environmental Impact Assessment indicated OWF-induced mortality at the level of less than 1 individual per year, which is negligible on local, regional and global scale in case of that species.</p> <p>In case of exclusion during migration flights, it will impose some energetic costs for the birds (which will change their route to avoid OWF); however, that effect is unlikely to be significant – modelling approaches performed for the Environmental Impact Assessment show that for seaducks migrating between the Baltic Sea and their breeding grounds in the Arctic, the additional energetic costs of avoiding the OWF area are at level of below 1% of total energetic costs of migration (route increased by 12,3 km). Therefore, that impact was assessed as negligible for all swans. This effect can be mitigated (see Mitigation)</p>	<p>The Environmental Decision imposes the following mitigation procedures to minimize the impact on birds using the OWF as well as the neighbouring N2000 area Ławica Słupska as migration corridor/wintering habitat.</p> <p>First, the original span of the OWF area was modified to fulfill the requirement of keeping the OWF at least 2 km from the edge of N2000 Słupska site. This is in line with published research on displacement of marine ducks by operating OWFs (Dierschke et al., 2016).</p> <p>Second, the original extent of the OWF area was modified to keep a 5-km wide, open corridor between 2 subunits of the OWF (i.e. Baltica 2, Baltica 3). The corridor should enable birds to migrate freely to and from the north-east to reach the N2000 site Ławica Słupska.</p> <p>Third, construction works that require piling (and lead to noise pollution) will not be performed between 1st November and 30th April, to avoid disturbing wintering/migrating birds. In the same period of time, vessels engaged in construction works are prevented from entering N2000 Ławica Słupska.</p> <p>Fourth, the construction of wind turbine towers is required to be tubular instead of</p>	<p>The project will not lead to excess mortality of the species, as the levels of mortality generated by wind turbines will be negligible at the population level.</p> <p>The project will induce minor but measurable changes in the flight trajectory during migration. This will be mitigated by creating a 5-km wide migration corridor between the two units of the OWF.</p> <p>As a consequence, the completion of the Project will not generate significant adverse effect on populations of swans (Whooper swan, Tundra swan, Mute swan).</p> <p>In terms of the (critical) habitat of the species, the Project encroaches only a measurable but minor fraction of the EAAA (0.6%) Importantly, the majority of the Project area is located offshore, ie. within areas that are used for migration only, and are not part of the species' core habitats. As a consequence, the <b>project will not lead to significant, adverse effect in critical habitat of the species.</b></p>	<p>The Environmental Decision imposes the following monitoring procedures regarding seabirds and migratory birds within the constructed OWF:</p> <ul style="list-style-type: none"> <li>- <b>seabird</b> monitoring within the OWF will be conducted in 1<sup>st</sup> and 2<sup>nd</sup> year after completion of each part of the OWF, within the OWF as well as N2000 Ławica Słupska</li> <li>- After that, additional monitoring will be conducted in 4<sup>th</sup> and 5<sup>th</sup> year;</li> <li>- The monitoring must include flight altitude, airspace use intensity, flight direction;</li> <li>- Seabird monitoring must be performed from September to May (at least 10 controls)</li> <li>- <b>Migratory</b> birds monitoring within the OWF will be conducted in 1<sup>st</sup> and</li> </ul>
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		<p>lattice, to reduce the potential bird collisions.</p> <p>Fifth, The monitoring and WTG shut-down system will ensure adequate spatial coverage to cover the entire OWF with radar and all perimeters covered with cameras and the ability to operate (identify target species) in adverse weather conditions and at night</p> <ul style="list-style-type: none"> <li>- WTG shut-down system will include: radar, set of day and night cameras and identification system,</li> <li>- Specifications of scenario which will trigger shut-down procedure will be prepared in between Project, Lenders and LIESC,</li> <li>- The trigger for creation of such specifications will be material increase in collisions compared with modelled number of collisions for EIA and/or conditions imposed by the Environmental Authority,</li> <li>- Threshold of material increase of collisions will be for bird species indicated in CHA as Critical Habitat/Priority Biodiversity Features,</li> <li>- The details of the system including the criteria/thresholds for the system to shutdown/slowdown will be detailed and implemented via the Biodiversity Management Plan which shall not be in</li> </ul>		<p>3<sup>rd</sup> year after completion of each part of the OWF, and in 5<sup>th</sup> year after completion of the whole project;</p> <p>Monitoring must be performed twice in each season (spring, autumn; at least 10 days/season, night and day, using radar, visual and acoustic observations).</p>
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		<p>contradiction with the requirements imposed by the Environmental Authority. This detailed description will inter alia include parameters of bird (species, size of flock, conservation status) status) and parameters of shut down/slow down (to which speed)</p> <p>Each shutdown/slowdown event triggered by the BMP requirements (shutdown/slowdown parameters met) must be subject to prompt reporting to Lenders within the quarterly E&amp;S self-monitoring reports.</p> <p>In the event shutdown/slowdown criteria in the BMP are triggered, and shutdown/slowdown is <b>not</b> activated potentially resulting in bird collisions, such failure will be considered an incident and shall be reported to Lenders, in accordance with the requirements outlined in the CTA, and to the Environmental Authority, along with a brief explanation for the failure to activate a shutdown/slowdown. Lenders at their sole discretion will have the right to request a more detailed investigation and/or preparation of a Corrective Action Plan (CAP) in the event of each material incident</p>		
Razorbill <i>Alca torda</i>	Auks in general have been proved to have low risk of collision with wind turbines, as they almost always fly low over sea level (<50 m, i.e. below the rotor	The Environmental Decision imposed the following mitigation procedures to minimize the impact on seabird using the OWF as well as the neighbouring N2000 area	The project will not lead to excess mortality of the species, as the levels of mortality generated by wind turbines will be negligible at the	The Environmental Decision imposes the following monitoring procedures regarding

	<p>blades). Therefore, the species will not be affected by any potential mortality generated by the project.</p> <p>In case of migrations, razorbills probably do not change their flight routes in reaction to OWFs, therefore this impact is negligible.</p> <p>There is a potential for partial displacement of Razorbills from areas covered by OWF and used by that species for resting and foraging. However, as the numbers of birds observed on the water surface (not in flight) during the Environmental Inventory were relatively low, the negative effect of that displacement on the level of regional population was assessed as negligible (and will be mitigated).</p>	<p>Ławica Słupska as migration corridor/wintering habitat.</p> <p>First, the original span of the OWF area was modified to fulfill the requirement of keeping the OWF at least 2 km from the edge of N2000 Słupska site.</p> <p>Second, the original extent of the OWF area was modified to keep a 5-km wide, open corridor between 2 subunits of the OWF (i.e. Baltica 2, Baltica 3). The corridor should enable birds to migrate freely to and from the north-east to reach the N2000 site Ławica Słupska.</p> <p>Third, construction works that require piling (and lead to noise pollution) will not be performed between 1st November and 30th April, to avoid disturbing wintering/migrating birds. In the same period of time, vessels engaged in construction works are prevented from entering N2000 Ławica Słupska.</p> <p>Fourth, the construction of wind turbine towers is required to be tubular instead of lattice, to reduce the potential bird collisions.</p> <p>Fifth, The monitoring and WTG shut-down system will ensure adequate spatial coverage to cover the entire OWF with radar and all perimeters covered with</p>	<p>population level due to high avoidance of wind turbines by the species.</p> <p>Any potential impact of the Project on migration routes of the species (which is unlikely) will be mitigated by creating a 5-km wide migration corridor between the two units of the OWF to enable free migration to and from N2000 Ławica Słupska.</p> <p>For Razorbills, the project will generate local displacement from winter foraging areas. This will be mitigated by moving the OWF turbines 2 km from the edge of N2000 site Ławica Słupska, to minimize the impact on birds using the N2000 area for wintering. Nevertheless, the birds currently using the OWF+2 km zone for winter foraging will be permanently displaced after completion of the project (wintering habitat loss). Overall, 608 Razorbills were observed on water surface within the OWF+2nm, while 137 individuals were observed within neighbouring SPA/SAC PLC990001 Ławica Słupska; as a consequence, Razorbill densities were higher within the Project Area than in neighbouring protected area. Nevertheless, the number of birds potentially displaced, although measurable, is a small fraction of the entire population wintering in the Baltic Sea (approx. 150,000, i.e. 0,4%), and the birds are likely to move to protected habitats in immediate vicinity; additionally, the presence of constructed OWF may potentially boost fish densities in the area in the future, contributing to</p>	<p>seabirds and migratory birds within the constructed OWF:</p> <ul style="list-style-type: none"> <li>- <b>seabird</b> monitoring within the OWF will be conducted in 1<sup>st</sup> and 2<sup>nd</sup> year after completion of each part of the OWF, within the OWF as well as N2000 Ławica Słupska</li> <li>- After that, additional monitoring will be conducted in 4<sup>th</sup> and 5<sup>th</sup> year;</li> <li>- The monitoring must include flight altitude, airspace use intensity, flight direction;</li> <li>- Seabird monitoring must be performed from September to May (at least 10 controls)</li> <li>- <b>Migratory</b> birds monitoring within the OWF will be conducted in 1<sup>st</sup> and 3<sup>rd</sup> year after completion of each part of the OWF, and in 5<sup>th</sup> year after</li> </ul>
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		<p>cameras and the ability to operate (identify target species) in adverse weather conditions and at night</p> <ul style="list-style-type: none"> <li>- WTG shut-down system will include: radar, set of day and night cameras and identification system,</li> <li>- Specifications of scenario which will trigger shut-down procedure will be prepared in between Project, Lenders and LIESC,</li> <li>- The trigger for creation of such specifications will be material increase in collisions compared with modelled number of collisions for EIA and/or conditions imposed by the Environmental Authority,</li> <li>- Threshold of material increase of collisions will be for bird species indicated in CHA as Critical Habitat/Priority Biodiversity Features,</li> <li>- The details of the system including the criteria/thresholds for the system to shutdown/slowdown will be detailed and implemented via the Biodiversity Management Plan which shall not be in contradiction with the requirements imposed by the Environmental Authority. This detailed description will inter alia include parameters of bird (species, size of flock, conservation status) status) and parameters of shut down/slow down (to which speed)</li> </ul>	<p>food resources used by the species ('artificial reef' as well as fishery exclusion).</p> <p>As a consequence, <b>the completion of the Project will not generate significant adverse effect on Razorbill populations.</b></p> <p>In terms of the (critical) habitat of the species, the Project encroaches only a measurable but minor fraction of the EAAA (0.6%). As a consequence, <b>the project will not lead to significant, adverse effect in critical habitat of the species.</b></p>	<p>completion of the whole project;</p> <p>Monitoring must be performed twice in each season (spring, autumn; at least 10 days/season, night and day, using radar, visual and acoustic observations).</p>
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		<p>Each shutdown/slowdown event triggered by the BMP requirements (shutdown/slowdown parameters met) must be subject to prompt reporting to Lenders within the quarterly E&amp;S self-monitoring reports.</p> <p>In the event shutdown/slowdown criteria in the BMP are triggered, and shutdown/slowdown is <b>not</b> activated potentially resulting in bird collisions, such failure will be considered an incident and shall be reported to Lenders, in accordance with the requirements outlined in the CTA, and to the Environmental Authority, along with a brief explanation for the failure to activate a shutdown/slowdown. Lenders at their sole discretion will have the right to request a more detailed investigation and/or preparation of a Corrective Action Plan (CAP) in the event of each material incident</p>		
<p>Little Gull <i>Hydrocoloeus minutus</i></p>	<p>In case of all gulls, the effect of displacement from existing migration routes is negligible – as gulls have lower energy requirements during flight than e.g. ducks, potential changes in flight trajectory/route caused by OWF construction do not translate to energetic costs of migration in a measurable way.</p> <p>In case of Little gull, the modelling approach performed for Environmental</p>	<p>The Environmental Decision imposed the following mitigation procedures to minimize the impact on seabirds using the OWF as well as the neighbouring N2000 area Ławica Słupska as migration corridor/wintering habitat.</p> <p>First, the original span of the OWF area was modified to fulfill the requirement of keeping the OWF at least 2 km from the edge of N2000 Słupska site.</p>	<p>The project will not lead to excess mortality of the species, as the levels of mortality generated by wind turbines will be negligible at the population level.</p> <p>As gulls in general are not strongly displaced by the OWF, this impact is also unlikely to generate strong impacts.</p> <p>As a consequence, the completion of the Project will not generate significant adverse effect on gull populations.</p>	<p>The Environmental Decision imposes the following monitoring procedures regarding seabirds and migratory birds within the constructed OWF:</p> <ul style="list-style-type: none"> <li>- <b>seabird</b> monitoring within the OWF will be conducted in 1<sup>st</sup> and 2<sup>nd</sup> year after</li> </ul>

	<p>Impact Assessment has shown the OWF-induced mortality of Little Gull at the level of less than 0-2 individuals per year, which is negligible on local, regional and global scale in case of that species.</p>	<p>Second, the original extent of the OWF area was modified to keep a 5-km wide, open corridor between 2 subunits of the OWF (i.e. Baltica 2, Baltica 3). The corridor should enable seabirds to migrate freely to and from the north-east to reach the N2000 site Ławica Słupska.</p> <p>Third, construction works that require piling (and lead to noise pollution) will not be performed between 1st November and 30th April, to avoid disturbing wintering/migrating birds. In the same period of time, vessels engaged in construction works are prevented from entering N2000 Ławica Słupska.</p> <p>Fourth, the construction of wind turbine towers is required to be tubular instead of lattice, to reduce the potential bird collisions.</p> <p>Fifth, The monitoring and WTG shut-down system will ensure adequate spatial coverage to cover the entire OWF with radar and all perimeters covered with cameras and the ability to operate (identify target species) in adverse weather conditions and at night</p> <p>- WTG shut-down system will include: radar, set of day and night cameras and identification system,</p>	<p>In terms of the (critical) habitat of the species, the Project encroaches only a minor (but measurable) fraction of the EAAA (0.6%). As a consequence, the <b>project will not lead to significant, adverse effect in critical habitat of the species.</b></p>	<p>completion of each part of the OWF, within the OWF as well as N2000 Ławica Słupska</p> <ul style="list-style-type: none"> <li>- After that, additional monitoring will be conducted in 4<sup>th</sup> and 5<sup>th</sup> year;</li> <li>- The monitoring must include flight altitude, airspace use intensity, flight direction;</li> <li>- Seabird monitoring must be performed from September to May (at least 10 controls)</li> <li>- <b>Migratory</b> birds monitoring within the OWF will be conducted in 1<sup>st</sup> and 3<sup>rd</sup> year after completion of each part of the OWF, and in 5<sup>th</sup> year after completion of the whole project;</li> </ul> <p>Monitoring must must be performed twice in each season (spring, autumn; at least 10 days/season, night and day, using</p>
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		<ul style="list-style-type: none"> <li>- Specifications of scenario which will trigger shut-down procedure will be prepared in between Project, Lenders and LIESC,</li> <li>- The trigger for creation of such specifications will be material increase in collisions compared with modelled number of collisions for EIA and/or conditions imposed by the Environmental Authority,</li> <li>- Threshold of material increase of collisions will be for bird species indicated in CHA as Critical Habitat/Priority Biodiversity Features,</li> <li>- The details of the system including the criteria/thresholds for the system to shutdown/slowdown will be detailed and implemented via the Biodiversity Management Plan which shall not be in contradiction with the requirements imposed by the Environmental Authority. This detailed description will inter alia include parameters of bird (species, size of flock, conservation status) status) and parameters of shut down/slow down (to which speed)</li> </ul> <p>Each shutdown/slowdown event triggered by the BMP requirements (shutdown/slowdown parameters met) must be subject to prompt reporting to Lenders within the quarterly E&amp;S self-monitoring reports.</p>		<p>radar, visual and acoustic observations).</p>
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		<p>In the event shutdown/slowdown criteria in the BMP are triggered, and shutdown/slowdown is <b>not</b> activated potentially resulting in bird collisions, such failure will be considered an incident and shall be reported to Lenders, in accordance with the requirements outlined in the CTA, and to the Environmental Authority, along with a brief explanation for the failure to activate a shutdown/slowdown. Lenders at their sole discretion will have the right to request a more detailed investigation and/or preparation of a Corrective Action Plan (CAP) in the event of each material incident</p>		
<p>European Herring Gull <i>Larus argentatus</i></p>	<p>In case of all gulls, the effect of displacement from existing migration routes is negligible – as gulls have lower energy requirements during flight than e.g. ducks, potential changes in flight trajectory/route caused by OWF construction do not translate to energetic costs of migration in a measurable way.</p> <p>In case of European herring gull, the potential OWF-induced mortality has not been modelled. However, the overall impact of collision risk was assessed as minor in Environmental Impact Assessment.</p>	<p>The Environmental Decision imposed the following mitigation procedures to minimize the impact on seabirds using the OWF as well as the neighbouring N2000 area Ławica Słupska as migration corridor/wintering habitat.</p> <p>First, the original span of the OWF area was modified to fulfill the requirement of keeping the OWF at least 2 km from the edge of N2000 Słupska site.</p> <p>Second, the original extent of the OWF area was modified to keep a 5-km wide, open corridor between 2 subunits of the OWF (i.e. Baltica 2, Baltica 3). The corridor should enable seabirds to migrate freely to and from the north-east to reach the N2000 site Ławica Słupska.</p>	<p>The project will not lead to excess mortality of the species, as the levels of mortality generated by wind turbines will be negligible at the population level.</p> <p>As gulls in general are not strongly displaced by the OWF, modification of flight routes are also unlikely to appear and generate strong impacts.</p> <p>As a consequence, the completion of the Project will not generate significant adverse effect on gull populations.</p> <p>In terms of the (critical) habitat of the species, the Project encroaches only a minor (though measurable) fraction of the EAAA (0.6%). As a consequence, the <b>project will not lead to</b></p>	<p>The Environmental Decision imposes the following monitoring procedures regarding seabirds and migratory birds within the constructed OWF:</p> <ul style="list-style-type: none"> <li>- <b>seabird</b> monitoring within the OWF will be conducted in 1<sup>st</sup> and 2<sup>nd</sup> year after completion of each part of the OWF, within the OWF as well as N2000 Ławica Słupska</li> <li>- After that, additional monitoring will be</li> </ul>



		<p>Third, construction works that require piling (and lead to noise pollution) will not be performed between 1st November and 30th April, to avoid disturbing wintering/migrating birds. In the same period of time, vessels engaged in construction works are prevented from entering N2000 Ławica Słupska.</p> <p>Fourth, the construction of wind turbine towers is required to be tubular instead of lattice, to reduce the potential bird collisions</p> <p>Fifth, The monitoring and WTG shut-down system will ensure adequate spatial coverage to cover the entire OWF with radar and all perimeters covered with cameras and the ability to operate (identify target species) in adverse weather conditions and at night</p> <ul style="list-style-type: none"> <li>- WTG shut-down system will include: radar, set of day and night cameras and identification system,</li> <li>- Specifications of scenario which will trigger shut-down procedure will be prepared in between Project, Lenders and LIESC,</li> <li>- The trigger for creation of such specifications will be material increase in collisions compared with modelled number</li> </ul>	<p><b>significant, adverse effect in critical habitat of the species.</b></p>	<p>conducted in 4<sup>th</sup> and 5<sup>th</sup> year;</p> <ul style="list-style-type: none"> <li>- The monitoring must include flight altitude, airspace use intensity, flight direction;</li> <li>- Seabird monitoring must be performed from September to May (at least 10 controls)</li> <li>- <b>Migratory</b> birds monitoring within the OWF will be conducted in 1<sup>st</sup> and 3<sup>rd</sup> year after completion of each part of the OWF, and in 5<sup>th</sup> year after completion of the whole project;</li> </ul> <p>Monitoring must be performed twice in each season (spring, autumn; at least 10 days/season, night and day, using radar, visual and acoustic observations).</p>
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		<p>of collisions for EIA and/or conditions imposed by the Environmental Authority,</p> <ul style="list-style-type: none"> <li>- Threshold of material increase of collisions will be for bird species indicated in CHA as Critical Habitat/Priority Biodiversity Features,</li> <li>- The details of the system including the criteria/thresholds for the system to shutdown/slowdown will be detailed and implemented via the Biodiversity Management Plan which shall not be in contradiction with the requirements imposed by the Environmental Authority. This detailed description will inter alia include parameters of bird (species, size of flock, conservation status) status and parameters of shut down/slow down (to which speed)</li> </ul> <p>Each shutdown/slowdown event triggered by the BMP requirements (shutdown/slowdown parameters met) must be subject to prompt reporting to Lenders within the quarterly E&amp;S self-monitoring reports.</p> <p>In the event shutdown/slowdown criteria in the BMP are triggered, and shutdown/slowdown is <b>not</b> activated potentially resulting in bird collisions, such failure will be considered an incident and shall be reported to Lenders, in accordance with the requirements outlined in the CTA, and to the Environmental Authority, along with</p>		
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		a brief explanation for the failure to activate a shutdown/slowdown. Lenders at their sole discretion will have the right to request a more detailed investigation and/or preparation of a Corrective Action Plan (CAP) in the event of each material incident		
Mew Gull <i>Larus canus</i>	<p>In case of all gulls, the effect of displacement from existing migration routes is negligible – as gulls have lower energy requirements during flight than e.g. ducks, potential changes in flight trajectory/route caused by OWF construction do not translate to energetic costs of migration in a measurable way.</p> <p>In case of Mew gull, the modelling approach performed for Environmental Impact Assessment has shown the OWF-induced mortality at the level of less than 0-1 individuals per year, which is negligible on local, regional and global scale in case of that species.</p>	<p>The Environmental Decision imposed the following mitigation procedures to minimize the impact on seabirds using the OWF as well as the neighbouring N2000 area Ławica Słupska as migration corridor/wintering habitat.</p> <p>First, the original span of the OWF area was modified to fulfill the requirement of keeping the OWF at least 2 km from the edge of N2000 Słupska site.</p> <p>Second, the original extent of the OWF area was modified to keep a 5-km wide, open corridor between 2 subunits of the OWF (i.e. Baltica 2, Baltica 3). The corridor should enable seabirds to migrate freely to and from the north-east to reach the N2000 site Ławica Słupska.</p> <p>Third, construction works that require piling (and lead to noise pollution) will not be performed between 1st November and 30th April, to avoid disturbing wintering/migrating birds. In the same period of time, vessels engaged in</p>	<p>The project will not lead to excess mortality of the species, as the levels of mortality generated by wind turbines will be negligible at the population level.</p> <p>As gulls in general are not strongly displaced by the OWF, this impact is also unlikely to generate strong impacts.</p> <p>As a consequence, the completion of the Project will not generate significant adverse effect on gull populations.</p> <p>In terms of the (critical) habitat of the species, the Project encroaches only a minor (though measurable) fraction of the EAAA (0.6%). As a consequence, the <b>project will not lead to significant, adverse effect in critical habitat of the species.</b></p>	<p>The Environmental Decision imposes the following monitoring procedures regarding seabirds and migratory birds within the constructed OWF:</p> <ul style="list-style-type: none"> <li>- <b>seabird</b> monitoring within the OWF will be conducted in 1<sup>st</sup> and 2<sup>nd</sup> year after completion of each part of the OWF, within the OWF as well as N2000 Ławica Słupska</li> <li>- After that, additional monitoring will be conducted in 4<sup>th</sup> and 5<sup>th</sup> year;</li> <li>- The monitoring must include flight altitude, airspace use intensity, flight direction;</li> </ul>

		<p>construction works are prevented from entering N2000 Ławica Słupska.</p> <p>Fourth, the construction of wind turbine towers is required to be tubular instead of lattice, to reduce the potential bird collisions.</p> <p>Fifth, The monitoring and WTG shut-down system will ensure adequate spatial coverage to cover the entire OWF with radar and all perimeters covered with cameras and the ability to operate (identify target species) in adverse weather conditions and at night</p> <ul style="list-style-type: none"> <li>- WTG shut-down system will include: radar, set of day and night cameras and identification system,</li> <li>- Specifications of scenario which will trigger shut-down procedure will be prepared in between Project, Lenders and LIESC,</li> <li>- The trigger for creation of such specifications will be material increase in collisions compared with modelled number of collisions for EIA and/or conditions imposed by the Environmental Authority,</li> <li>- Threshold of material increase of collisions will be for bird species indicated in CHA as Critical Habitat/Priority Biodiversity Features,</li> </ul>		<ul style="list-style-type: none"> <li>- Seabird monitoring must be performed from September to May (at least 10 controls)</li> <li>- <b>Migratory</b> birds monitoring within the OWF will be conducted in 1<sup>st</sup> and 3<sup>rd</sup> year after completion of each part of the OWF, and in 5<sup>th</sup> year after completion of the whole project;</li> </ul> <p>Monitoring must be performed twice in each season (spring, autumn; at least 10 days/season, night and day, using radar, visual and acoustic observations).</p>
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		<p>- The details of the system including the criteria/thresholds for the system to shutdown/slowdown will be detailed and implemented via the Biodiversity Management Plan which shall not be in contradiction with the requirements imposed by the Environmental Authority. This detailed description will inter alia include parameters of bird (species, size of flock, conservation status) status) and parameters of shut down/slow down (to which speed)</p> <p>Each shutdown/slowdown event triggered by the BMP requirements (shutdown/slowdown parameters met) must be subject to prompt reporting to Lenders within the quarterly E&amp;S self-monitoring reports.</p> <p>In the event shutdown/slowdown criteria in the BMP are triggered, and shutdown/slowdown is <b>not</b> activated potentially resulting in bird collisions, such failure will considered an incident and shall be reported to Lenders, in accordance with the requirements outlined in the CTA, and to the Environmental Authority, along with a brief explanation for the failure to activate a shutdown/slowdown. Lenders at their sole discretion will have the right to request a more detailed investigation and/or preparation of a Corrective Action Plan (CAP) in the event of each material incident</p>		
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<p>Lesser Black-backed Gull <i>Larus fuscus</i></p>	<p>In case of all gulls, the effect of displacement from existing migration routes is negligible – as gulls have lower energy requirements during flight than e.g. ducks, potential changes in flight trajectory/route caused by OWF construction do not translate to energetic costs of migration in a measurable way.</p> <p>In case of Lesser Black-backed gull, the modelling approach performed for Environmental Impact Assessment has shown the OWF-induced mortality at the level of less than 0-2 individuals per year, which is negligible on local, regional and global scale in case of that species.</p>	<p>The Environmental Decision imposed the following mitigation procedures to minimize the impact on seabirds using the OWF as well as the neighbouring N2000 area Ławica Słupska as migration corridor/wintering habitat.</p> <p>First, the original span of the OWF area was modified to fulfill the requirement of keeping the OWF at least 2 km from the edge of N2000 Słupska site.</p> <p>Second, the original extent of the OWF area was modified to keep a 5-km wide, open corridor between 2 subunits of the OWF (i.e. Baltica 2, Baltica 3). The corridor should enable seabirds to migrate freely to and from the north-east to reach the N2000 site Ławica Słupska.</p> <p>Third, construction works that require piling (and lead to noise pollution) will not be performed between 1st November and 30th April, to avoid disturbing wintering/migrating birds. In the same period of time, vessels engaged in construction works are prevented from entering N2000 Ławica Słupska.</p> <p>Fourth, the construction of wind turbine towers is required to be tubular instead of lattice, to reduce the potential bird collisions.</p>	<p>The project will not lead to excess mortality of the species, as the levels of mortality generated by wind turbines will be negligible at the population level.</p> <p>As gulls in general are not strongly displaced by the OWF, this impact is also unlikely to generate strong impacts.</p> <p>As a consequence, the completion of the Project will not generate significant adverse effect on gull populations.</p> <p>In terms of the (critical) habitat of the species, the Project encroaches only a minor (though measurable) fraction of the EAAA (0.6%). As a consequence, the <b>project will not lead to significant, adverse effect in critical habitat of the species.</b></p>	<p>The Environmental Decision imposes the following monitoring procedures regarding seabirds and migratory birds within the constructed OWF:</p> <ul style="list-style-type: none"> <li>- <b>seabird</b> monitoring within the OWF will be conducted in 1<sup>st</sup> and 2<sup>nd</sup> year after completion of each part of the OWF, within the OWF as well as N2000 Ławica Słupska</li> <li>- After that, additional monitoring will be conducted in 4<sup>th</sup> and 5<sup>th</sup> year;</li> <li>- The monitoring must include flight altitude, airspace use intensity, flight direction;</li> <li>- Seabird monitoring must be performed from September to May (at least 10 controls)</li> <li>- <b>Migratory</b> birds monitoring within the OWF will be conducted in 1<sup>st</sup> and</li> </ul>
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		<p>Fifth, The monitoring and WTG shut-down system will ensure adequate spatial coverage to cover the entire OWF with radar and all perimeters covered with cameras and the ability to operate (identify target species) in adverse weather conditions and at night</p> <ul style="list-style-type: none"> <li>- WTG shut-down system will include: radar, set of day and night cameras and identification system,</li> <li>- Specifications of scenario which will trigger shut-down procedure will be prepared in between Project, Lenders and LIESC,</li> <li>- The trigger for creation of such specifications will be material increase in collisions compared with modelled number of collisions for EIA and/or conditions imposed by the Environmental Authority,</li> <li>- Threshold of material increase of collisions will be for bird species indicated in CHA as Critical Habitat/Priority Biodiversity Features,</li> <li>- The details of the system including the criteria/thresholds for the system to shutdown/slowdown will be detailed and implemented via the Biodiversity Management Plan which shall not be in contradiction with the requirements imposed by the Environmental Authority. This detailed description will inter alia</li> </ul>		<p>3<sup>rd</sup> year after completion of each part of the OWF, and in 5<sup>th</sup> year after completion of the whole project;</p> <p>Monitoring must be performed twice in each season (spring, autumn; at least 10 days/season, night and day, using radar, visual and acoustic observations).</p>
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		<p>include parameters of bird (species, size of flock, conservation status) status) and parameters of shut down/slow down (to which speed)</p> <p>Each shutdown/slowdown event triggered by the BMP requirements (shutdown/slowdown parameters met) must be subject to prompt reporting to Lenders within the quarterly E&amp;S self-monitoring reports.</p> <p>In the event shutdown/slowdown criteria in the BMP are triggered, and shutdown/slowdown is <b>not</b> activated potentially resulting in bird collisions, such failure will be considered an incident and shall be reported to Lenders, in accordance with the requirements outlined in the CTA, and to the Environmental Authority, along with a brief explanation for the failure to activate a shutdown/slowdown. Lenders at their sole discretion will have the right to request a more detailed investigation and/or preparation of a Corrective Action Plan (CAP) in the event of each material incident</p>		
Black-headed Gull <i>Larus ridibundus</i>	In case of all gulls, the effect of displacement from existing migration routes is negligible – as gulls have lower energy requirements during flight than e.g. ducks, potential changes in flight trajectory/route caused by OWF construction do not translate to	The Environmental Decision imposed the following mitigation procedures to minimize the impact on seabirds using the OWF as well as the neighbouring N2000 area Ławica Słupska as migration corridor/wintering habitat.	<p>The project will not lead to excess mortality of the species, as the levels of mortality generated by wind turbines will be negligible at the population level.</p> <p>As gulls in general are not strongly displaced by the OWF, this impact is also unlikely to generate strong impacts.</p>	The Environmental Decision imposes the following monitoring procedures regarding seabirds and migratory birds within the constructed OWF:

	<p>energetic costs of migration in a measurable way.</p> <p>In case of Lesser Black-backed gull, the modelling approach performed for Environmental Impact Assessment has shown the OWF-induced mortality at the level of less than 1-4 individuals per year, which is negligible on local, regional and global scale in case of that species.</p>	<p>First, the original span of the OWF area was modified to fulfill the requirement of keeping the OWF at least 2 km from the edge of N2000 Słupska site.</p> <p>Second, the original extent of the OWF area was modified to keep a 5-km wide, open corridor between 2 subunits of the OWF (i.e. Baltica 2, Baltica 3). The corridor should enable seabirds to migrate freely to and from the north-east to reach the N2000 site Ławica Słupska.</p> <p>Third, construction works that require piling (and lead to noise pollution) will not be performed between 1st November and 30th April, to avoid disturbing wintering/migrating birds. In the same period of time, vessels engaged in construction works are prevented from entering N2000 Ławica Słupska.</p> <p>Fourth, the construction of wind turbine towers is required to be tubular instead of lattice, to reduce the potential bird collisions.</p> <p>Fifth, The monitoring and WTG shut-down system will ensure adequate spatial coverage to cover the entire OWF with radar and all perimeters covered with cameras and the ability to operate (identify</p>	<p>As a consequence, the completion of the Project will not generate significant adverse effect on gull populations.</p> <p>In terms of the (critical) habitat of the species, the Project encroaches only a minor (though measurable) fraction of the EAAA (0.6%). As a consequence, the <b>project will not lead to significant, adverse effect in critical habitat of the species.</b></p>	<ul style="list-style-type: none"> <li>- <b>seabird</b> monitoring within the OWF will be conducted in 1<sup>st</sup> and 2<sup>nd</sup> year after completion of each part of the OWF, within the OWF as well as N2000 Ławica Słupska</li> <li>- After that, additional monitoring will be conducted in 4<sup>th</sup> and 5<sup>th</sup> year;</li> <li>- The monitoring must include flight altitude, airspace use intensity, flight direction;</li> <li>- Seabird monitoring must be performed from September to May (at least 10 controls)</li> <li>- <b>Migratory</b> birds monitoring within the OWF will be conducted in 1<sup>st</sup> and 3<sup>rd</sup> year after completion of each part of the OWF, and in 5<sup>th</sup> year after completion of the whole project;</li> </ul> <p>Monitoring must be performed twice in each</p>
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		<p>target species) in adverse weather conditions and at night</p> <ul style="list-style-type: none"> <li>- WTG shut-down system will include: radar, set of day and night cameras and identification system,</li> <li>- Specifications of scenario which will trigger shut-down procedure will be prepared in between Project, Lenders and LIESC,</li> <li>- The trigger for creation of such specifications will be material increase in collisions compared with modelled number of collisions for EIA and/or conditions imposed by the Environmental Authority,</li> <li>- Threshold of material increase of collisions will be for bird species indicated in CHA as Critical Habitat/Priority Biodiversity Features,</li> <li>- The details of the system including the criteria/thresholds for the system to shutdown/slowdown will be detailed and implemented via the Biodiversity Management Plan which shall not be in contradiction with the requirements imposed by the Environmental Authority. This detailed description will inter alia include parameters of bird (species, size of flock, conservation status) status) and parameters of shut down/slow down (to which speed)</li> </ul>		<p>season (spring, autumn; at least 10 days/season, night and day, using radar, visual and acoustic observations).</p>
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		<p>Each shutdown/slowdown event triggered by the BMP requirements (shutdown/slowdown parameters met) must be subject to prompt reporting to Lenders within the quarterly E&amp;S self-monitoring reports.</p> <p>In the event shutdown/slowdown criteria in the BMP are triggered, and shutdown/slowdown is <b>not</b> activated potentially resulting in bird collisions, such failure will be considered an incident and shall be reported to Lenders, in accordance with the requirements outlined in the CTA, and to the Environmental Authority, along with a brief explanation for the failure to activate a shutdown/slowdown. Lenders at their sole discretion will have the right to request a more detailed investigation and/or preparation of a Corrective Action Plan (CAP) in the event of each material incident</p>		
<p>Sandwich Tern <i>Thalasseus sandvicensis</i></p>	<p>In case of all terns, the impact of mortality of the operating OWFs are relatively low, as they spend most of their time flying less than 20 m over ocean surface, searching for food. However, during migration they may also fly on higher altitudes. For all species of tern potentially migrating through the OWF area, the modelling approach performed for Environmental Impact Assessment has shown the OWF-induced mortality at the level of</p>	<p>The Environmental Decision imposed the following mitigation procedures to minimize the impact on seabirds using the OWF as well as the neighbouring N2000 area Ławica Słupska as migration corridor/wintering habitat.</p> <p>First, the original span of the OWF area was modified to fulfill the requirement of keeping the OWF at least 2 km from the edge of N2000 Słupska site.</p>	<p>The project will not lead to excess mortality of the species, as the levels of mortality generated by wind turbines will be negligible at the population level.</p> <p>As terns in general are not strongly displaced by the OWF, this impact is also unlikely to generate strong impacts.</p>	<p>The Environmental Decision imposes the following monitoring procedures regarding seabirds and migratory birds within the constructed OWF:</p> <ul style="list-style-type: none"> <li>- <b>seabird</b> monitoring within the OWF will be conducted in 1<sup>st</sup> and 2<sup>nd</sup> year after</li> </ul>

	<p>less than 1-4 individuals per year, which is negligible on local, regional and global scale in case of</p> <p>Similarly to the case of gulls, the effect of displacement by the OWF from existing migration routes is negligible – as gulls have lower energy requirements during flight than e.g. ducks, potential changes in flight trajectory/route caused by OWF construction do not translate to energetic costs of migration in a measurable way.</p>	<p>Second, the original extent of the OWF area was modified to keep a 5-km wide, open corridor between 2 subunits of the OWF (i.e. Baltica 2, Baltica 3). The corridor should enable seabirds to migrate freely to and from the north-east to reach the N2000 site Ławica Słupska.</p> <p>Third, construction works that require piling (and lead to noise pollution) will not be performed between 1st November and 30th April, to avoid disturbing wintering/migrating birds. In the same period of time, vessels engaged in construction works are prevented from entering N2000 Ławica Słupska.</p> <p>Fourth, the construction of wind turbine towers is required to be tubular instead of lattice, to reduce the potential bird collisions.</p> <p>Fifth, The monitoring and WTG shut-down system will ensure adequate spatial coverage to cover the entire OWF with radar and all perimeters covered with cameras and the ability to operate (identify target species) in adverse weather conditions and at night</p> <p>- WTG shut-down system will include: radar, set of day and night cameras and identification system,</p>	<p>As a consequence, the completion of the Project will not generate significant adverse effect on tern populations.</p> <p>In terms of the (critical) habitat of the species, the Project encroaches only a minor (though measurable) fraction of the EAAA (0.6%). As a consequence, the <b>project will not lead to significant, adverse effect in critical habitat of the species.</b></p>	<p>completion of each part of the OWF, within the OWF as well as N2000 Ławica Słupska</p> <ul style="list-style-type: none"> <li>- After that, additional monitoring will be conducted in 4<sup>th</sup> and 5<sup>th</sup> year;</li> <li>- The monitoring must include flight altitude, airspace use intensity, flight direction;</li> <li>- Seabird monitoring must be performed from September to May (at least 10 controls)</li> <li>- <b>Migratory</b> birds monitoring within the OWF will be conducted in 1<sup>st</sup> and 3<sup>rd</sup> year after completion of each part of the OWF, and in 5<sup>th</sup> year after completion of the whole project;</li> </ul> <p>Monitoring must must be performed twice in each season (spring, autumn; at least 10 days/season, night and day, using</p>
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		<ul style="list-style-type: none"> <li>- Specifications of scenario which will trigger shut-down procedure will be prepared in between Project, Lenders and LIESC,</li> <li>- The trigger for creation of such specifications will be material increase in collisions compared with modelled number of collisions for EIA and/or conditions imposed by the Environmental Authority,</li> <li>- Threshold of material increase of collisions will be for bird species indicated in CHA as Critical Habitat/Priority Biodiversity Features,</li> <li>- The details of the system including the criteria/thresholds for the system to shutdown/slowdown will be detailed and implemented via the Biodiversity Management Plan which shall not be in contradiction with the requirements imposed by the Environmental Authority. This detailed description will inter alia include parameters of bird (species, size of flock, conservation status) status) and parameters of shut down/slow down (to which speed)</li> </ul> <p>Each shutdown/slowdown event triggered by the BMP requirements (shutdown/slowdown parameters met) must be subject to prompt reporting to Lenders within the quarterly E&amp;S self-monitoring reports.</p>		<p>radar, visual and acoustic observations).</p>
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		<p>In the event shutdown/slowdown criteria in the BMP are triggered, and shutdown/slowdown is <b>not</b> activated potentially resulting in bird collisions, such failure will be considered an incident and shall be reported to Lenders, in accordance with the requirements outlined in the CTA, and to the Environmental Authority, along with a brief explanation for the failure to activate a shutdown/slowdown. Lenders at their sole discretion will have the right to request a more detailed investigation and/or preparation of a Corrective Action Plan (CAP) in the event of each material incident</p>		
<p>Eurasian Curlew <i>Numenius arquata</i></p>	<p>In case of Eurasian curlew the modelling approach performed for Environmental Impact Assessment has shown the OWF-induced mortality at the level under 5 individuals per year, which is negligible on local, regional and global scale in case of that species.</p> <p>The potential impact of displacement is limited – European curlew, similarly to other shorebirds, probably changes its flight altitude to cross over wind farms, and does not change the course of migration.</p>	<p>The Environmental Decision imposed the following mitigation procedures to minimize the impact on birds migrating through the OWF:</p> <ul style="list-style-type: none"> <li>- The original extent of the OWF area was modified to keep a 5-km wide, open corridor between 2 subunits of the OWF (i.e. Baltica 2, Baltica 3). The corridor should enable seabirds to migrate freely at the SW-NW axis;</li> <li>- the construction of wind turbine towers is required to be tubular instead of lattice, to reduce the potential bird collisions.</li> </ul> <p>In case of onshore CI, the Environmental Decision imposes the requirement to install markers, such as signal spirals, on lightning</p>	<p>The project will not lead to excess mortality of the species, as the levels of mortality generated by wind turbines will be negligible at the population level.</p> <p>Species' mortality in the onshore part of the Project (power substation) will also be negligible, especially with onshore mitigation measures in place (markers).</p> <p>As curlews migration routes in general are not strongly altered by the OWF, this impact is also unlikely to generate adverse effects.</p> <p><b>As a consequence, the completion of the Project will not generate significant adverse effect on European curlew populations.</b></p>	<p>The Environmental Decision imposes the following monitoring procedures regarding seabirds and migratory birds within the constructed OWF:</p> <ul style="list-style-type: none"> <li>- <b>Migratory</b> birds monitoring within the OWF will be conducted in 1<sup>st</sup> and 3<sup>rd</sup> year after completion of each part of the OWF, and in 5<sup>th</sup> year after completion of the whole project;</li> </ul>



		<p>conductors within high-voltage infrastructure (power substation) to limit the scale of bird collisions (spaced not less than 25 m per conductor).</p> <p>Fifth, The monitoring and WTG shut-down system will ensure adequate spatial coverage to cover the entire OWF with radar and all perimeters covered with cameras and the ability to operate (identify target species) in adverse weather conditions and at night</p> <ul style="list-style-type: none"> <li>- WTG shut-down system will include: radar, set of day and night cameras and identification system,</li> <li>- Specifications of scenario which will trigger shut-down procedure will be prepared in between Project, Lenders and LIESC,</li> <li>- The trigger for creation of such specifications will be material increase in collisions compared with modelled number of collisions for EIA and/or conditions imposed by the Environmental Authority,</li> <li>- Threshold of material increase of collisions will be for bird species indicated in CHA as Critical Habitat/Priority Biodiversity Features,</li> <li>- The details of the system including the criteria/thresholds for the system to</li> </ul>	<p>In terms of the (critical) habitat of the species, the Project encroaches only a minor (though measurable) fraction of the EAAA (delineated as Polish Baltic Sea (internal marine waters, territorial sea and exclusive economic zone) + 10 km inland), ie. EAAA (0.5%). Importantly, the majority of the Project area is located offshore, ie. within areas that are used for migration only, and are not part of the species' core habitats. As a consequence, the <b>project will not lead to significant, adverse effect in critical habitat of the species.</b></p>	<ul style="list-style-type: none"> <li>- Monitoring must be performed twice in each season (spring, autumn; at least 10 days/season, night and day, using radar, visual and acoustic observations).</li> </ul>
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		<p>shutdown/slowdown will be detailed and implemented via the Biodiversity Management Plan which shall not be in contradiction with the requirements imposed by the Environmental Authority. This detailed description will inter alia include parameters of bird (species, size of flock, conservation status) status) and parameters of shut down/slow down (to which speed)</p> <p>Each shutdown/slowdown event triggered by the BMP requirements (shutdown/slowdown parameters met) must be subject to prompt reporting to Lenders within the quarterly E&amp;S self-monitoring reports.</p> <p>In the event shutdown/slowdown criteria in the BMP are triggered, and shutdown/slowdown is <b>not</b> activated potentially resulting in bird collisions, such failure will considered an incident and shall be reported to Lenders, in accordance with the requirements outlined in the CTA, and to the Environmental Authority, along with a brief explanation for the failure to activate a shutdown/slowdown. Lenders at their sole discretion will have the right to request a more detailed investigation and/or preparation of a Corrective Action Plan (CAP) in the event of each material incident</p>		
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<p>Common Crane <i>Grus grus</i></p>	<p>In case of Common crane, the modelling approach performed for Environmental Impact Assessment has shown the OWF-induced mortality at the level up to 10-20 individuals per year, which is negligible on local, regional and global scale in case of that species.</p> <p>In case of displacement during migration flights by the constructed OWF, it will impose some energetic costs for the Cranes (which may change their route to avoid OWF); however, that effect is unlikely to be significant – modelling approaches performed for the Environmental Impact Assessment show that for seaducks migrating between the Baltic Sea and their breeding grounds in the Arctic, the additional energetic costs of avoiding the OWF area are at level of below 2% of total energetic costs of migration (route increased by 12,3 km). Therefore, that impact was assessed as negligible for the Common crane.</p>	<p>The Environmental Decision imposed the following mitigation procedures to minimize the impact on birds migrating through the OWF:</p> <ul style="list-style-type: none"> <li>- The original extent of the OWF area was modified to keep a 5-km wide, open corridor between 2 subunits of the OWF (i.e. Baltica 2, Baltica 3). The corridor should enable seabirds to migrate freely at the SW-NW axis;</li> <li>- the construction of wind turbine towers is required to be tubular instead of lattice, to reduce the potential bird collisions.</li> </ul> <p>Fifth, The monitoring and WTG shut-down system will ensure adequate spatial coverage to cover the entire OWF with radar and all perimeters covered with cameras and the ability to operate (identify target species) in adverse weather conditions and at night</p> <ul style="list-style-type: none"> <li>- WTG shut-down system will include: radar, set of day and night cameras and identification system,</li> <li>- Specifications of scenario which will trigger shut-down procedure will be prepared in between Project, Lenders and LIESC,</li> <li>- The trigger for creation of such specifications will be material increase in</li> </ul>	<p>The project will not lead to excess mortality of the species, as the levels of mortality generated by wind turbines will be measurable but negligible at the population level.</p> <p>As Common crane migration routes are not strongly displaced by the OWF, this effect is also unlikely to generate strong impacts.</p> <p>As a consequence, the completion of the Project will not generate significant adverse effect on Common crane populations.</p> <p>In terms of the (critical) habitat of the species, the Project encroaches only a minor (though measurable) fraction of the EAAA (delineated as Polish Baltic Sea (internal marine waters, territorial sea and exclusive economic zone) + 10 km inland), ie. 0.5%. Importantly, the majority of the Project area is located offshore, ie. within areas that are used for migration only, and are not part of the species' core habitats. As a consequence, the <b>project will not lead to significant, adverse effect in critical habitat of the species.</b></p>	<p>The Environmental Decision imposes the following monitoring procedures regarding seabirds and migratory birds within the constructed OWF:</p> <ul style="list-style-type: none"> <li>- <b>Migratory</b> birds monitoring within the OWF will be conducted in 1<sup>st</sup> and 3<sup>rd</sup> year after completion of each part of the OWF, and in 5<sup>th</sup> year after completion of the whole project;</li> </ul> <p>Monitoring must be performed twice in each season (spring, autumn; at least 10 days/season, night and day, using radar, visual and acoustic observations).</p>
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		<p>collisions compared with modelled number of collisions for EIA and/or conditions imposed by the Environmental Authority,</p> <ul style="list-style-type: none"> <li>- Threshold of material increase of collisions will be for bird species indicated in CHA as Critical Habitat/Priority Biodiversity Features,</li> <li>- The details of the system including the criteria/thresholds for the system to shutdown/slowdown will be detailed and implemented via the Biodiversity Management Plan which shall not be in contradiction with the requirements imposed by the Environmental Authority. This detailed description will inter alia include parameters of bird (species, size of flock, conservation status) status) and parameters of shut down/slow down (to which speed)</li> </ul> <p>Each shutdown/slowdown event triggered by the BMP requirements (shutdown/slowdown parameters met) must be subject to prompt reporting to Lenders within the quarterly E&amp;S self-monitoring reports.</p> <p>In the event shutdown/slowdown criteria in the BMP are triggered, and shutdown/slowdown is <b>not</b> activated potentially resulting in bird collisions, such failure will considered an incident and shall be reported to Lenders, in accordance with the requirements outlined in the CTA, and</p>		
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		<p>to the Environmental Authority, along with a brief explanation for the failure to activate a shutdown/slowdown. Lenders at their sole discretion will have the right to request a more detailed investigation and/or preparation of a Corrective Action Plan (CAP) in the event of each material incident</p> <p>In case of onshore CI, the Environmental Decision imposes the requirement to install markers, such as signal spirals, on lightning conductors within high-voltage infrastructure (power substation) to limit the scale of bird collisions (spaced not less than 25 m per conductor).</p>		
<p>Great Cormorant <i>Phalacrocorax carbo</i></p>	<p>In case of Great cormorant, the modelling approach performed for Environmental Impact Assessment has shown the OWF-induced mortality at the level up to 1-2 individuals per year, which is negligible on local, regional and global scale in case of that species.</p> <p>For the species, the potential effect of displacement from existing foraging ground/migration routes was also assessed as negligible.</p>	<p>The Environmental Decision imposed the following mitigation procedures to minimize the impact on seabirds using the OWF as well as the neighbouring N2000 area Ławica Słupska as migration corridor/wintering habitat.</p> <p>First, the original span of the OWF area was modified to fulfill the requirement of keeping the OWF at least 2 km from the edge of N2000 Słupska site.</p> <p>Second, the original extent of the OWF area was modified to keep a 5-km wide, open corridor between 2 subunits of the OWF (i.e. Baltica 2, Baltica 3). The corridor should enable seabirds to migrate freely to</p>	<p>The project will not lead to excess mortality of the species, as the levels of mortality generated by wind turbines will be negligible at the population level.</p> <p>As Great cormorants are not strongly displaced by the OWF, this impact is also unlikely to generate strong impacts.</p> <p>As a consequence, the completion of the Project will not generate significant adverse effect on Great cormorant populations.</p> <p>In terms of the (critical) habitat of the species, the Project encroaches only a minor (though measurable) fraction of the EAAA (delineated as Polish Baltic Sea (internal marine waters,</p>	<p>The Environmental Decision imposes the following monitoring procedures regarding seabirds and migratory birds within the constructed OWF:</p> <ul style="list-style-type: none"> <li>- <b>seabird</b> monitoring within the OWF will be conducted in 1<sup>st</sup> and 2<sup>nd</sup> year after completion of each part of the OWF, within the OWF as well as N2000 Ławica Słupska</li> </ul>

		<p>and from the north-east to reach the N2000 site Ławica Słupska.</p> <p>Third, construction works that require piling (and lead to noise pollution) will not be performed between 1st November and 30th April, to avoid disturbing wintering/migrating birds. In the same period of time, vessels engaged in construction works are prevented from entering N2000 Ławica Słupska.</p> <p>Fourth, the construction of wind turbine towers is required to be tubular instead of lattice, to reduce the potential bird collisions.</p> <p>Fifth, The monitoring and WTG shut-down system will ensure adequate spatial coverage to cover the entire OWF with radar and all perimeters covered with cameras and the ability to operate (identify target species) in adverse weather conditions and at night</p> <ul style="list-style-type: none"> <li>- WTG shut-down system will include: radar, set of day and night cameras and identification system,</li> <li>- Specifications of scenario which will trigger shut-down procedure will be prepared in between Project, Lenders and LIESC,</li> </ul>	<p>territorial sea and exclusive economic zone) (0.6%). As a consequence, the <b>Project will not lead to significant, adverse effect in critical habitat of the species.</b></p>	<ul style="list-style-type: none"> <li>- After that, additional monitoring will be conducted in 4<sup>th</sup> and 5<sup>th</sup> year;</li> <li>- The monitoring must include flight altitude, airspace use intensity, flight direction;</li> <li>- Seabird monitoring must be performed from September to May (at least 10 controls)</li> <li>- <b>Migratory</b> birds monitoring within the OWF will be conducted in 1<sup>st</sup> and 3<sup>rd</sup> year after completion of each part of the OWF, and in 5<sup>th</sup> year after completion of the whole project;</li> </ul> <p>Monitoring must be performed twice in each season (spring, autumn; at least 10 days/season, night and day, using radar, visual and acoustic observations).</p>
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		<ul style="list-style-type: none"> <li>- The trigger for creation of such specifications will be material increase in collisions compared with modelled number of collisions for EIA and/or conditions imposed by the Environmental Authority,</li> <li>- Threshold of material increase of collisions will be for bird species indicated in CHA as Critical Habitat/Priority Biodiversity Features,</li> <li>- The details of the system including the criteria/thresholds for the system to shutdown/slowdown will be detailed and implemented via the Biodiversity Management Plan which shall not be in contradiction with the requirements imposed by the Environmental Authority. This detailed description will inter alia include parameters of bird (species, size of flock, conservation status) status) and parameters of shut down/slow down (to which speed)</li> </ul> <p>Each shutdown/slowdown event triggered by the BMP requirements (shutdown/slowdown parameters met) must be subject to prompt reporting to Lenders within the quarterly E&amp;S self-monitoring reports.</p> <p>In the event shutdown/slowdown criteria in the BMP are triggered, and shutdown/slowdown is <b>not</b> activated potentially resulting in bird collisions, such failure will considered an incident and shall</p>		
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		be reported to Lenders, in accordance with the requirements outlined in the CTA, and to the Environmental Authority, along with a brief explanation for the failure to activate a shutdown/slowdown. Lenders at their sole discretion will have the right to request a more detailed investigation and/or preparation of a Corrective Action Plan (CAP) in the event of each material incident		
Atlantic Salmon (Baltic Sea subpopulation) <i>Salmo salar</i>	<p>In case of the Atlantic Salmon, the breeding grounds of the species are located upstream in Słupia river, away from the Area of Impact of the project (OMB Port Ustka), tens of kilometers into the PLH220052 Dolina Słupi. However, adult individuals migrate upstream through the Słupia river within Port Ustka, passing through the project Aol.</p> <p>The construction works within OMB Port Ustka may potentially impact the autumn upstream migration of that species, e.g. through decreased oxygen levels driven by increased suspension of sediment, artificial light at night (ALAN) as well as increased noise levels. The aforementioned impact will however be mitigated.</p> <p>However, it is important to note that anadromous fish entering freshwater are naturally under considerable</p>	<p>The Environmental Decision imposes the following mitigation measures:</p> <ul style="list-style-type: none"> <li>- Construction works linked to increased noise levels are banned in autumn (September-October) due to upstream migration of adult individuals;</li> <li>- During dredging works, oxygen levels in water below the construction site will be monitored; if oxygen concentration falls below level that are safe for fish, works have to be halted until the oxygen returns to safe level;</li> <li>- Artificial light directed towards water surface needs to be reduced in autumn (September-October) as well as spring (March-April), in order to reduce disturbance to migrating fish (Atlantic salmon) and lampreys (European river lamprey).</li> </ul>	<p>The impact of the Project will be temporary (limited to construction works within OMB Port Ustka), and will not lead to additional mortality as well as habitat destruction for the species. The potential impacts during construction phase will be mitigated. Therefore, <b>the completion of the Project will not generate significant adverse effect on Atlantic Salmon populations.</b></p> <p>In terms of the amount of critical habitat modified by the Project, the spatial extent of modifications (reconstruction of ca. 500 m of already existing quay walls) are measurable but negligible in the context of the entire area of the EAAA (PLH220052 Dolina Słupi). Therefore, <b>the project will not have significant impact on critical habitat of Atlantic Salmon.</b></p>	<p>The breeding population in the PLH220052 Dolina Słupi is included in the National Animal Species Monitoring Scheme, with results of round of monitoring published and communicated to the European Commission (e.g. GIOŚ 2017a). As a consequence, the monitoring results concerning the species are publicly available, and will be used for verification of any potential residual impacts of the Project on the local breeding population of Atlantic Salmon.</p>



	physiological stress, move fast towards breeding grounds and are unlikely to stay long within the Area of Impact. After completion of the construction works, the project is unlikely to affect the species.			
European river lamprey <i>Lampetra fluviatilis</i>	<p>In case of the European river lamprey, the breeding grounds of the species are located upstream in Słupia river, away from the Area of Impact of the project (OMB Port Ustka), several kilometers into the PLH220052 Dolina Słupi. However, adult individuals migrate upstream through the Słupia river within Port Ustka, passing through the project AoI.</p> <p>The construction works within OMB Port Ustka may potentially impact the autumn upstream migration of that species, e.g. through increased suspension of sediment, decreased oxygen levels, artificial light at night (ALAN) as well as increased noise levels. The aforementioned impact will however be mitigated.</p> <p>However, it is important to note that anadromous fish entering freshwater are naturally under considerable physiological stress, move fast towards breeding grounds and are unlikely to stay long within the Area of Impact. After completion of the construction works,</p>	<p>The Environmental Decision imposes the following mitigation measures:</p> <ul style="list-style-type: none"> <li>- Construction works linked to increased noise levels are banned in autumn (September-October) due to upstream migration of adult individuals;</li> <li>- During dredging works, oxygen levels in water below the construction site will be monitored; if oxygen concentration falls below level that are safe for fish, works have to be halted until the oxygen returns to safe level;</li> </ul> <p>Artificial light directed towards water surface needs to be reduced in autumn (September-October) as well as spring (March-April), in order to reduce disturbance to migrating fish (Atlantic salmon) and lampreys (European river lamprey).</p>	<p>The impact of the Project will be temporary (limited to construction works within OMB Port Ustka), and will not lead to additional mortality as well as habitat destruction for the species. The potential impacts during construction phase will be mitigated. Therefore, <b>the completion of the Project will not generate significant adverse effect on European river lamprey populations.</b></p> <p>In terms of the amount of critical habitat modified by the Project, the spatial extent of modifications (reconstruction of ca. 500 m of already existing quay walls) are measurable but negligible in the context of the entire area of the EAAA (PLH220052 Dolina Słupi). Therefore, <b>the project will not have significant impact on critical habitat of European river lamprey.</b></p>	<p>This species is currently monitored at national level in Poland (GIOS Monitoring of marine species and habitats). However, currently monitored rivers lay outside the PLH220052 Dolina Słupi (although its inclusion in the program has already been suggested; GIOŚ 2018b). For the purpose of monitoring the potential residual impacts of the Project, European river lamprey populations in the Słupia river will be monitored for the next 3 years (from the 1<sup>st</sup> year after completion of the OMB Port Ustka), using GIOS methodology (GIOS 2022), i.e. including counts of spawning adults, density of larvae, age structure of larvae, as well as</p>

	the project is unlikely to affect the species.			freshwater habitat quality.
Fixed coastal dunes with herbaceous vegetation ('grey dunes') (EU habitat code: 2130*)	The habitat is located in the area of landfall of the underwater/underground cable (onshore CI), in the area of the indirect impact zone of the Project. Because the derivation of cable lines from the marine area to land will be performed by trenchless method - guided drilling (HDD, DP or microtunneling), the habitat will not be actually affected by the construction works.	The Environmental Impact Assessment recognizes the need to perform construction works in the area of habitat 2130* using trenchless method.  To protect this habitat the Project will use trenchless method (HDD) as a solution to cross the shoreline. This solution will not make any impact on this habitat.	As the construction works within the Project are not likely to impact the local extent of the habitat, the project is not likely to lead to any measurable, significant, adverse impact on habitat 2130*.	The area of the habitat within the Area of Investment will be monitored annually for the next 3 years after the completion of the Project (onshore CI), using national methodology (Braun 2015), which includes <i>inter alia</i> : presence of plant species characteristic for the habitat, presence of nitrophilous species, condition and flowering of grasses, presence of alien/invasive species, presence of geomorphological processes (abrasion/sedimentation), signs of mechanical damage of the dune etc. The results will be used to assess presence of any residual impact of the Project on this particular patch of habitat 2130*.
Alluvial forests with <i>Alnus glutinosa</i> and	Approx. 0,68 ha of the habitat is located within the zone of direct impact of onshore CI. Because the construction of	. There was no Environmental Decision issued for 15 kV power back-up supply	As the construction works within the Project are not likely to impact the local extent of the habitat, the project is not likely to lead to any	The patch area of the within Area of Investment will be monitored

<p>Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) (EU habitat code: 91E0*)</p>	<p>cable lines will be performed by trenchless method - guided drilling (HDD, DP or microtunneling), the habitat will not be actually affected by the construction works.</p>	<p>because this investment is not qualified as an investment that has to obtain Env. Decision.</p> <p>However, to comply with PR6 the mitigation (avoidance of impact) will be performed using trenchless method of construction of underground cable within the patch of habitat that is located within Project Area.</p>	<p>measurable, significant, adverse impact on habitat 91E0*.</p>	<p>annually for the next 3 years after the completion of the Project (onshore CI), using national methodology (Pawlaczyk 2015), which includes <i>inter alia</i>: presence of plant species characteristic for the habitat, forest structure, tree age, presence of dead wood, presence of alien/invasive species, presence of dead wood etc. The results will be used to assess presence of any residual impact of the Project on this particular patch of habitat 91E0 within the AoI.</p>
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## 5.2. Priority Biodiversity Features impact analysis

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
<p>Harbour porpoise (Baltic Sea subpopulation) <i>Phocoena phocoena</i></p>	<p>Harbour porpoises, just like other marine mammals, are most vulnerable to OWFs during their construction phase, when there is considerable underwater noise pollution (Carstensen et al., 2006). However, noise from already operating OWFs is unlikely to have negative impacts on that species (Tougaard et al., 2009). After OWF construction, acoustic activity indexes within the developed area tend to recover, albeit slowly (Teilmann &amp; Carstensen, 2012).</p> <p>In case of offshore CI, construction works will not induce significant impact on porpoises, as there will be no piling works (which translates to much lower noise levels), and animals will probably avoid the area of construction works, while habitat disturbance caused by undersea cable will be only temporary and the bottom will be quickly recolonized by fish and invertebrates (providing food for porpoises).</p>	<p>1) In order to reduce the impact of noise on marine mammals, each time when starting the piling works, the so-called "soft start" procedure is to be followed, i.e. starting from a few impacts with a lower force and gradually increasing the impact force, and, consequently, gradually raise the noise intensity.</p> <p>2) While driving the piles fixing the wind turbines to the seabed, apply best available noise emission limiting measures, e.g. in the form of an air curtain/bubble curtain, noise reduction screens, or other technique guaranteeing that the cumulated underwater noise level per hour at the boundary of Natura 2000 site Ostoja Słowińska (PLH220023) will not exceed 140 dB re 1 µPa<sup>2</sup>s weighted with the HF function (HF weighing function designed for marine mammals highly vulnerable to high-frequency noise; NMFS 2016), i.e. the threshold level of TTS (Temporary Threshold Shift) for the species – in other words, the temporary reduction of hearing abilities. The</p>	<p>The Environmental Impact assessment analysed the following potential impact on the species:</p> <ul style="list-style-type: none"> <li>• underwater noise</li> <li>• behavioural avoidance</li> <li>• increased maritime traffic noise</li> <li>• resuspension of sediments</li> <li>• collision with vessels</li> </ul> <p>All were considered as small-scale, moderate impacts.</p> <p>The most important aspect is underwater noise. The modelling of noise impacts on porpoise population in the area used population density data from SAMBAH passive acoustic monitoring database of species activity. Under mitigation measures imposed by the Environmental Decision, on average 1,3 - 18,3 animals will be affected by TTS (Temporary Threshold Shift) – in other</p>	<p>OWF:</p> <ul style="list-style-type: none"> <li>- Passive acoustic monitoring of porpoises (using C-PODs) carried out from 6 month before the construction stage and during construction stage;</li> <li>- Passive acoustic monitoring of porpoises continued for 24 months after handing over of a given construction stage for operation, (using the same methods as before and after construction).</li> </ul>

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
		<p>applied method of noise level reduction at the piling stage must allow to maintain the noise level indicated above at the boundary of the protected area. If noise measurements indicate exceeding the above-mentioned threshold, driving of the piles must be immediately stopped. The Regional Director for Environmental Protection in Gdańsk shall be immediately informed about such situation not later than 7 days after the occurrence of the event. Further works may be continued after implementation of actions approved in writing by the Regional Director for Environmental Protection in Gdańsk, to exclude the occurrence of excessive noise, which will allow to observe the above-mentioned limit of noise level.</p> <p>3) In relation to the above, measurement of construction noise is to be carried out during the period of intensive works (e.g. driving of foundation piles).</p> <p>4) Passive monitoring of porpoises carried out at the construction stage is to be continued for 24 months after handing over of a given construction stage for operation, using the same methods as during construction.</p>	<p>words, a temporary reduction of hearing abilities as a result of construction works. This translates to at most 1,7% of the local porpoise population. Such impact, just as another potential impacts on the species, although measurable, <b>will not lead to permanent, significant, adverse impact on the species.</b></p> <p>In terms of the (critical) habitat of the Harbour porpoise, a measurable but minor fraction of the entire range of the Baltic subpopulation (which roughly translates to the area of Baltic Proper IMMA) will be temporarily inaccessible for animals during construction works (0.2% of the Baltic Proper IMMA is encroached by the Project; taking into account underwater noise propagation, the extent is probably closer to 0.4% under all relevant mitigation procedures). During operational phase of the Project, the species is likely to return to the area (which may begin to provide additional</p>	

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
		<p>5) During construction phase passive acoustic monitoring of porpoises will be conducted as a mitigation measure to check and confirm presence of absence of porpoises in vicinity of piling area. This Marine Mammal Mitigation Plan (MMMP) should be prepared for 3 months before construction phase. MMMP will include design array for acoustics detectors, and their technical specification.</p> <p>The plan will contain:</p> <ul style="list-style-type: none"> <li>- The management zones for acoustic detections, and defined mitigation zones for marine mammals</li> <li>- The pre-piling search/detection procedure, including definitions of timing for searches, and actions for delay-start, if required.</li> <li>- The soft-start/ramp up procedure, including actions to cease piling if practicable should a marine mammal be detected in the pre-defined mitigation zone, or at minimum, to not increase power until the marine mammal exits the mitigation zone</li> <li>- The full power procedure, including marine mammal</li> </ul>	<p>resources for the species, as areas within and around OWFs tend to host increased fish densities).</p> <p>In summary, <b>the project will lead to temporary disturbance of approx. 0.4% of the critical habitat within the EAAA, but no significant adverse effects on critical habitat of Harbour porpoise are likely in the long term.</b></p>	

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
		<p>detection recording forms throughout the duration of piling activities. If there is a break in piling operations for a pre-defined period of time, the pre-piling search/detection procedure is repeated before recommencement of the soft-start and full power procedure.</p> <ul style="list-style-type: none"> <li>- Timing, including seasonal restrictions for piling activities, where applicable.</li> <li>- Software calibration, communications procedures between the rPAM observer and the installation vessel</li> <li>- Monitoring and reporting protocols, including definitions of corrective actions if required.</li> </ul>		
<p>Grey wolf <i>Canis lupus</i></p>	<p>For onshore CI where the species has been detected as present in the landscape, the potential risks for all mammals (including Grey wolf) were listed as:</p> <ul style="list-style-type: none"> <li>- habitat fragmentation (significant)</li> <li>- artificial light at night (ALAN) (significant)</li> <li>- noise pollution (minor)</li> <li>- collisions (negligible)</li> </ul>	<p>Onshore connection infrastructure is located in area where no breeding dens of Grey wolf were found.</p> <p>The construction area of onshore CI will not be fenced during construction as well as during operation. As the species is capable of using open habitats, the the area of underground cable will not act as a dispersal barrier for the species.</p>	<p>The population in the EAAA (+5 km around onshore CI) is unknown; However, is unlikely to host more than a few individuals on a regular basis (the Environmental Inventory indicated the Grey wolf presence, but no details were given – probably the species was detected on the basis of scats/footprints, which do not</p>	<p>Monitoring on onshore connection infrastructure will be conducted in 1<sup>st</sup> and 3<sup>rd</sup> year after construction. It will be conducted in winter after fresh snowfall in area of cable line. Tracks on fresh snow will be marked and mapped.</p>

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
	<p>However, the European wolf in its Central European range is a species well adapted to human-modified environments. Although construction works (noise, increased human presence etc.) will certainly lead to temporary exclusion of the species activity from the areas surrounding Onshore CI, the species is likely to return during exploitation phase. As Grey wolf is able to travel long distances through the habitat matrix, local deforestation, road reconstruction and construction of new buildings are not likely to significantly decrease its migration/dispersal potential in the area.</p>		<p>provide quantitative information on the local population). As a consequence, it is a negligible fraction of the species' national range (&lt;0.1%), and, which is a negligible fraction of the national population (estimated at over 1,800 individuals; GIOS 2018). As a consequence, <b>the impact on this PBF species is negligible both in terms of population size as well the extent of habitats within Area of Impact of the Project as well as EAAA</b>. The completion of the project <b>will not lead to permanent, significant, adverse impact on the species</b>, as the risk of mortality and large-scale habitat destruction is negligible.</p>	
Eurasian otter <i>Lutra lutra</i>	<p>For onshore CI where the species has been detected as present in the landscape, the potential risks for all mammals (including Eurasian otter) were listed as:</p> <ul style="list-style-type: none"> <li>- habitat fragmentation (significant)</li> <li>- artificial light at night (ALAN) (significant)</li> <li>- noise pollution (minor)</li> </ul>	<p>The Project will not have any direct impact on water bodies or river where Otter could occur or occurs.</p> <p>River where Otter occurs will be crossed by trenchless method so there won't be any fragmentation or even minor destruction of habitat.</p>	<p>The population in the EAAA (+5 km around onshore CI) is unknown; However, is unlikely to host more than a few individuals on a regular basis. As a consequence, it is a negligible fraction of the species' national range (&lt;0.1%). The size of national</p>	<p>The area of the habitat within the onshore CI will be monitored annually for the next 3 years after the completion of the Project (onshore CI), using national methodology (Zajac et al. 2015), which includes <i>inter alia</i>:</p>



Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
	<p>- collisions (negligible)</p> <p>However, the Eurasian otter If in its Central European range is a species well adapted to human-modified environments. Although construction works (noise, increased human presence etc.) will certainly lead to temporary exclusion of the species activity from the areas surrounding Onshore CI, the species is likely to return during exploitation phase. As Eurasian otter is mainly confined to wetlands in the vicinity of Onshore CI, which are not directly destroyed or impacted by the project in any significant way, the project is not likely to impact the species in the local context (as well as national, regional or global context).</p>	<p>All construction sites will have oil spills procedures to keep water bodies or rivers safe.</p>	<p>population has never been estimated – as a consequence, area is used as proxy for population size.</p> <p>As a consequence, <b>the impact on this PBF species is negligible both in terms of population size as well the extent of habitats within Area of Impact of the Project as well as EAAA.</b> The completion of the project <b>will not lead to permanent, significant, adverse impact on the species</b>, as the risk of mortality and large-scale habitat destruction is negligible.</p>	<p>number of sites with sightings of the species within monitored area, populational indexes using signs of species presence, local density of other population, habitat features, food abundance etc. The completion of monitoring should reveal if there were any negative changes within local Eurasian otter population, possibly through residual impacts of the Project.</p>
<p>Eurasian beaver <i>Castor fiber</i></p>	<p>For onshore CI where the species has been detected as present in the landscape, the potential risks for all mammals (including Eurasian otter) were listed as:</p> <ul style="list-style-type: none"> <li>- habitat fragmentation (significant)</li> <li>- artificial light at night (ALAN) (significant)</li> <li>- noise pollution (minor)</li> <li>- collisions (negligible)</li> </ul> <p>However, the Eurasian beaver If in its Central European range is a species well adapted to human-modified</p>	<p>The Project will not have any direct impact on water bodies or river where Beaver occurs. Any earth works related with construction of onshore substation won't disturb water level in water bodies where beaver was found.</p> <p>Crossing of river where beavers sings were observed will be done with trenchless method so this habitat won't be damaged.</p>	<p>The population in the EAAA (+5 km around onshore CI) is unknown; However, is unlikely to host more than a few individuals on a regular basis. As a consequence, it is a negligible fraction of the species' national range (&lt;0.1%). The size of national population has never been reliably estimated (official data indicate over 150,000 beavers, but their accuracy is disputed) –</p>	<p>The area of the habitat within the onshore CI will be monitored annually for the next 3 years after the completion of the Project (onshore CI), using national methodology (Romanowski et al. 2015), which includes <i>inter alia</i>: number of sites with sightings of the species within monitored area, populational indexes</p>

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
	<p>environments. Although construction works (noise, increased human presence etc.) will certainly lead to temporary exclusion of the species activity from the areas surrounding Onshore CI, the species is likely to return during exploitation phase. As Eurasian otter is mainly confined to wetlands in the vicinity of Onshore CI, which are not directly destroyed or impacted by the project in any significant way, the project is not likely to impact the species in the local context (as well as national, regional or global context).</p>	<p>All construction sites will have oil spills procedures to keep water bodies or rivers safe.</p>	<p>as a consequence, area is used as proxy for population size.</p> <p>As a consequence, <b>the impact on this PBF species is negligible both in terms of population size as well the extent of habitats within Area of Impact of the Project as well as EAAA.</b> The completion of the project <b>will not lead to permanent, significant, adverse impact on the species</b>, as the risk of mortality and large-scale habitat destruction is negligible.</p>	<p>using signs of species presence, local density of beaver families etc. The completion of monitoring should reveal if there were any negative changes within local beaver population, possibly through residual impacts of the Project.</p>
<p>Long-tailed duck <i>Clangula hyemalis</i></p>	<p>Sea ducks in general have been proved to have high collision avoidance rate with wind turbines (even 99,3 - 99,9% Desholm et al, 2005). As a consequence, the OWF installation will not be linked with significant additional mortality of the species – the mortality modelling performed for Environmental Impact Assessment indicated OWF-induced mortality at the level of 0-1 individuals per year, which is negligible on local, regional and global scale in case of Long-tailed duck.</p>	<p>The Environmental Decision imposed the following mitigation procedures to minimize the impact on seabirds using the OWF as well as the neighbouring N2000 area Ławica Słupska as migration corridor/wintering habitat.</p> <p>First, the original span of the OWF area was modified to fulfill the requirement of keeping the OWF at least 2 km from the edge of N2000 Słupska site, to minimize the impact on birds using the site for wintering. This is in line with published research on displacement of</p>	<p>The project will not lead to excess mortality of the species, as the levels of mortality generated by wind turbines will be negligible at the population level due to high avoidance of wind turbines by the species. Nevertheless, the impact will be reduced due to the planned automated system of turbine curtailment, containing radar and automated bird identification system, shutting/slowing down chosen</p>	<p>The Environmental Decision imposes the following monitoring procedures regarding seabirds and migratory birds within the constructed OWF:</p> <ul style="list-style-type: none"> <li>- <b>seabird</b> monitoring within the OWF will be conducted in 1<sup>st</sup> and 2<sup>nd</sup> year after completion of each part of the OWF,</li> </ul>

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
	<p>However, sea ducks strongly avoid the area of operating OWFs; the avoidance spans for up to 2 km from the edge of an operating OWF, while in surrounding waters farther away, bird densities tend to increase (Petersen et al., 2006; Dierschke et al., 2016). This phenomenon concerns both flights during migration as well as resting/foraging on the sea surface. As a consequence, migrating sea ducks will modify their route to avoid the OWF, while the area between the wind turbines will be excluded as resting/foraging areas for the species.</p> <p>In case of exclusion during migration flights, it will impose some energetic costs for the birds (which will change their route to avoid OWF); however, that effect is unlikely to be significant – modelling approaches performed for the Environmental Impact Assessment show that for seaducks migrating between the Baltic Sea and their breeding grounds in the Arctic, the additional energetic costs of avoiding the OWF area are at level of below 1% of total energetic costs of migration (route increased by 12,3 km). Therefore, that impact was assessed as minor. However, its effect can be mitigated (see Mitigation)</p> <p>In case of exclusion from resting/foraging habitats during winter, wintering and</p>	<p>marine ducks by operating OWFs (Dierschke et al., 2016).</p> <p>Second, the original extent of the OWF area was modified to keep a 5-km wide, open corridor between 2 subunits of the OWF (i.e. Baltica 2, Baltica 3). The corridor should enable birds to migrate freely to and from the north-east to reach the N2000 site Ławica Słupska.</p> <p>Third, construction works that require piling (and lead to noise pollution) will not be performed between 1st November and 30th April, to avoid disturbing wintering/migrating birds. In the same period of time, vessels engaged in construction works are prevented from entering N2000 Ławica Słupska. In the same period of time, vessels engaged in construction works are prevented from entering N2000 Ławica Słupska. hibited from entering N2000 area Ławica Słupska.</p> <p>Fourth, the construction of wind turbine towers is required to be tubular instead of lattice, to reduce the potential bird collisions.</p>	<p>wind turbines located at bird trajectory.</p> <p>The project will induce minor but measurable changes in the flight trajectory during migration. This will be mitigated by creating a 5-km wide migration corridor between the two units of the OWF, as well as moving the OWF turbines from the edge of N2000 site Ławica Słupska, which is a critical habitat for sea ducks (especially Long-tailed duck).</p> <p>The project will generate measurable local displacement from foraging/resting areas on sea surface. This will be mitigated by moving the OWF turbines 2 km from the edge of N2000 site Ławica Słupska, to minimize the impact on birds using the N2000 area for wintering. Nevertheless, the birds currently using the OWF+2 km zone for winter foraging will be permanently displaced after completion of the project (wintering habitat loss).</p>	<p>within the OWF as well as N2000 Ławica Słupska</p> <ul style="list-style-type: none"> <li>- After that, additional monitoring will be conducted in 4<sup>th</sup> and 5<sup>th</sup> year;</li> <li>- The monitoring must include flight altitude, airspace use intensity, flight direction;</li> <li>- Seabird monitoring must be performed from September to May (at least 10 controls)</li> <li>- <b>Migratory</b> birds monitoring within the OWF will be conducted in 1<sup>st</sup> and 3<sup>rd</sup> year after completion of each part of the OWF, and in 5<sup>th</sup> year after completion of the whole project;</li> </ul> <p>Monitoring must be performed twice in each season (spring, autumn; at least 10 days/season, night and day, using</p>

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
	<p>resting sea ducks will be displaced from the OWF area and +2 km from its surroundings. This impact was assessed as minor or medium (depending on the seaduck species, with medium for Long-tailed duck and minor for Velvet scoter). However, its effect can be mitigated (see Mitigation).</p> <p>In case of offshore CI, the negative impact of the Project will be temporary, limited to short-time displacement of birds during construction works. As macrozoobenthic communities (i.e. food source for seaducks) along the undersea cable are expected to recover after a few seasons, no long-term negative effects of offshore CI are expected.</p>	<p>Fifth, The monitoring and WTG shut-down system will ensure adequate spatial coverage to cover the entire OWF with radar and all perimeters covered with cameras and the ability to operate (identify target species) in adverse weather conditions and at night</p> <ul style="list-style-type: none"> <li>- WTG shut-down system will include: radar, set of day and night cameras and identification system,</li> <li>- Specifications of scenario which will trigger shut-down procedure will be prepared in between Project, Lenders and LIESC,</li> <li>- The trigger for creation of such specifications will be material increase in collisions compared with modelled number of collisions for EIA and/or conditions imposed by the Environmental Authority,</li> <li>- Threshold of material increase of collisions will be for bird species indicated in CHA as Critical Habitat/Priority Biodiversity Features,</li> <li>- The details of the system including the criteria/thresholds for the system to shutdown/slowdown will be detailed and implemented via the Biodiversity</li> </ul>	<p>However, the OWF area provides only suboptimal winter foraging habitat for the species, as it prefers water up to 20-30 m deep (diving deeper in search for food is less profitable in context of energetic costs), while 94% of the OWF area is deeper than 30 m. Consistently, the numbers and densities of Long-tailed ducks observed on water surface within the OWF area+2nm buffer zone were consistently lower (by an order of magnitude) than within the SPA/SAC PLC990001 Ławica Słupska (i.e. 3547 birds vs. 54,139 birds). As a consequence, displacement of a small (though measurable) fraction of the wintering population towards optimal habitats located in immediate vicinity of the Project should not translate to significant adverse effect on the Long-tailed duck population at regional or global scale.</p> <p>As a consequence, <b>the completion of the Project will</b></p>	<p>radar, visual and acoustic observations).</p>

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
		<p>Management Plan which shall not be in contradiction with the requirements imposed by the Environmental Authority. This detailed description will inter alia include parameters of bird (species, size of flock, conservation status) status) and parameters of shut down/slow down (to which speed)</p> <p>Each shutdown/slowdown event triggered by the BMP requirements (shutdown/slowdown parameters met) must be subject to prompt reporting to Lenders within the quarterly E&amp;S self-monitoring reports.</p> <p>In the event shutdown/slowdown criteria in the BMP are triggered, and shutdown/slowdown is <b>not</b> activated potentially resulting in bird collisions, such failure will considered an incident and shall be reported to Lenders, in accordance with the requirements outlined in the CTA, and to the Environmental Authority, along with a brief explanation for the failure to activate a shutdown/slowdown.</p> <p>Lenders at their sole discretion will have the right to request a more detailed investigation and/or preparation of a Corrective Action Plan (CAP) in the event of each material incident</p>	<p><b>not generate significant adverse effect on Long-tailed duck population.</b></p> <p>In terms of the (critical) habitat of the Long-tailed Duck, the project will lead to measurable permanent loss of 0.6% of the EAAA. However, this area consists of suboptimal habitat (see above). As a consequence, <b>the completion of the Project is unlikely to lead to significant, adverse effect on the entire extent of the critical habitat of the species within EAAA.</b></p>	

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
<p>Velvet scoter <i>Melanitta fusca</i></p>	<p>Sea ducks in general have been proved to have high collision avoidance rate with wind turbines (even 99,3 - 99,9% Desholm et al, 2005). As a consequence, the OWF installation will not be linked with significant additional mortality of the species – the mortality modelling performed for Environmental Impact Assessment indicated OWF-induced mortality at the level of 0-1 individuals per year, which is negligible on local, regional and global scale in case of Long-tailed duck.</p> <p>However, sea ducks strongly avoid the area of operating OWFs; the avoidance spans for up to 2 km from the edge of an operating OWF, while in surrounding waters farther away, bird densities tend to increase (Petersen et al., 2006; Dierschke et al., 2016). This phenomenon concerns both flights during migration as well as resting/foraging on the sea surface. As a consequence, migrating sea ducks will modify their route to avoid the OWF, and the area between the wind turbines will be excluded as resting/foraging areas for the species.</p> <p>In case of exclusion during migration flights, it will impose some energetic costs for the birds (which will change their route to avoid OWF); however, that effect is unlikely to be significant – modelling</p>	<p>The Environmental Decision imposed the following mitigation procedures to minimize the impact on seabirds using the OWF as well as the neighbouring N2000 area Ławica Słupska as migration corridor/wintering habitat.</p> <p>First, the original span of the OWF area was modified to fulfill the requirement of keeping the OWF at least 2 km from the edge of N2000 Słupska site. This is in line with published research on displacement of marine ducks by operating OWFs (Dierschke et al., 2016).</p> <p>Second, the original extent of the OWF area was modified to keep a 5-km wide, open corridor between 2 subunits of the OWF (i.e. Baltica 2, Baltica 3). The corridor should enable birds to migrate freely to and from the north-east to reach the N2000 site Ławica Słupska.</p> <p>Third, construction works that require piling (and lead to noise pollution) will not be performed between 1st November and 30th April, to avoid disturbing wintering/migrating birds. In the same period of time, vessels engaged in construction works are</p>	<p>The project will not lead to excess mortality of the species, as the levels of mortality generated by wind turbines will be negligible at the population level due to high avoidance of wind turbines by the species. Nevertheless, the impact will be reduced due to the planned automated system of turbine curtailment, containing radar and automated bird identification system, shutting/slowing down chosen wind turbines located at bird trajectory.</p> <p>The project will induce minor changes in the flight trajectory during migration. This will be mitigated by creating a 5-km wide migration corridor between the two units of the OWF, as well as moving the OWF turbines from the edge of N2000 site Ławica Słupska, which is a critical habitat for sea ducks.</p> <p>The project will generate local displacement from foraging/resting areas on sea</p>	<p>The Environmental Decision imposes the following monitoring procedures regarding seabirds and migratory birds within the constructed OWF:</p> <ul style="list-style-type: none"> <li>- <b>seabird</b> monitoring within the OWF will be conducted in 1<sup>st</sup> and 2<sup>nd</sup> year after completion of each part of the OWF, within the OWF as well as N2000 Ławica Słupska</li> <li>- After that, additional monitoring will be conducted in 4<sup>th</sup> and 5<sup>th</sup> year;</li> <li>- The monitoring must include flight altitude, airspace use intensity, flight direction;</li> <li>- Seabird monitoring must be performed from September to May (at least 10 controls)</li> </ul>

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
	<p>approaches performed for the Environmental Impact Assessment show that for seaducks migrating between the Baltic Sea and their breeding grounds in the Arctic, the additional energetic costs of avoiding the OWF area are at level of below 1% of total energetic costs of migration (route increased by 12,3 km). Therefore, that impact was assessed as minor. However, its effect can be mitigated (see Mitigation)</p> <p>In case of exclusion from resting/foraging habitats during winter, wintering and resting sea ducks will be displaced from the OWF area and +/- 2 km from its surroundings. This impact was assessed as minor or medium (depending on the seaduck species, with medium for Long-tailed duck and minor for Velvet scoter). However, its effect can be mitigated (see Mitigation).</p> <p>In case of offshore CI, the negative impact of the Project will be temporary, limited to short-time displacement of birds during construction works. As macrozoobenthic communities (i.e. food source for seaducks) along the undersea cable are expected to recover after a few seasons, no long-term negative effects of offshore CI are expected.</p>	<p>prevented from entering N2000 Ławica Słupska.</p> <p>Fourth, the construction of wind turbine towers is required to be tubular instead of lattice, to reduce the potential bird collisions.</p> <p>Fifth, The monitoring and WTG shut-down system will ensure adequate spatial coverage to cover the entire OWF with radar and all perimeters covered with cameras and the ability to operate (identify target species) in adverse weather conditions and at night</p> <p>- WTG shut-down system will include: radar, set of day and night cameras and identification system,</p> <p>- Specifications of scenario which will trigger shut-down procedure will be prepared in between Project, Lenders and LIESC,</p> <p>- The trigger for creation of such specifications will be material increase in collisions compared with modelled number of collisions for EIA and/or conditions imposed by the Environmental Authority,</p>	<p>surface. This will be mitigated by moving the OWF turbines 2 km from the edge of N2000 site Ławica Słupska, to minimize the impact on birds using the N2000 area for wintering. Nevertheless, the birds currently using the OWF+2 km zone for winter foraging will be permanently displaced after completion of the project (wintering habitat loss). However, the OWF area provides only suboptimal winter foraging habitat for the species, as it prefers water up to 20-30 m deep (diving deeper in search for food is less profitable in context of energetic costs), while 94% of the OWF area is deeper than 30 m. Consistently, the numbers and densities of Velvet scoters observed on water surface within the OWF area+2nm buffer zone were consistently lower (by an order of magnitude) than within the SPA/SAC PLC990001 Ławica Słupska (i.e. 7 birds vs. 3,131 birds). As a consequence, displacement of a small though measurable fraction of the wintering population towards optimal habitats located in</p>	<p>- <b>Migratory</b> birds monitoring within the OWF will be conducted in 1<sup>st</sup> and 3<sup>rd</sup> year after completion of each part of the OWF, and in 5<sup>th</sup> year after completion of the whole project;</p> <p>Monitoring must be performed twice in each season (spring, autumn; at least 10 days/season, night and day, using radar, visual and acoustic observations).</p>



Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
		<p>- Threshold of material increase of collisions will be for bird species indicated in CHA as Critical Habitat/Priority Biodiversity Features,</p> <p>- The details of the system including the criteria/thresholds for the system to shutdown/slowdown will be detailed and implemented via the Biodiversity Management Plan which shall not be in contradiction with the requirements imposed by the Environmental Authority. This detailed description will inter alia include parameters of bird (species, size of flock, conservation status) status) and parameters of shut down/slow down (to which speed)</p> <p>Each shutdown/slowdown event triggered by the BMP requirements (shutdown/slowdown parameters met) must be subject to prompt reporting to Lenders within the quarterly E&amp;S self-monitoring reports.</p> <p>In the event shutdown/slowdown criteria in the BMP are triggered, and shutdown/slowdown is <b>not</b> activated potentially resulting in bird collisions, such failure will considered an incident and shall be reported to Lenders, in accordance with the requirements outlined in the CTA, and to the</p>	<p>immediate vicinity of the Project should not translate to significant adverse effect on the Velvet scoter population at regional or global scale.</p> <p>As a consequence, <b>the completion of the Project will not generate significant adverse effect on Velvet scoter population wintering in the Baltic Sea.</b></p> <p>In terms of the (critical) habitat of the Velvet scoter, the project will lead to permanent loss of 0.6% of the EAAA. However, this area consists of suboptimal habitat (see above). As a consequence, <b>the completion of the Project is unlikely to lead to significant, adverse effect on the entire extent of the critical habitat of the species within EAAA.</b></p>	



Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
		<p>Environmental Authority, along with a brief explanation for the failure to activate a shutdown/slowdown. Lenders at their sole discretion will have the right to request a more detailed investigation and/or preparation of a Corrective Action Plan (CAP) in the event of each material incident</p>		
<p>Common scoter <i>Melanitta nigra</i></p>	<p>Sea ducks in general have been proved to have high collision avoidance rate with wind turbines (even 99,3 - 99,9% Desholm et al, 2005). As a consequence, the OWF installation will not be linked with significant additional mortality of the species – the mortality modelling performed for Environmental Impact Assessment indicated OWF-induced mortality at the level of 0-1 individuals per year, which is negligible on local, regional and global scale in case of Long-tailed duck.</p> <p>However, sea ducks strongly avoid the area of operating OWFs; the avoidance spans for up to 2 km from the edge of an operating OWF, while in surrounding waters farther away, bird densities tend to increase (Petersen et al., 2006; Dierschke et al., 2016). This phenomenon concerns both flights during migration as well as resting/foraging on the sea surface. As a consequence, migrating sea ducks will modify their route to avoid the OWF, and</p>	<p>The Environmental Decision imposed the following mitigation procedures to minimize the impact seabirds using the OWF as well as the neighbouring N2000 area Ławica Słupska as migration corridor/wintering habitat.</p> <p>First, the original span of the OWF area was modified to fulfill the requirement of keeping the OWF at least 2 km from the edge of N2000 Słupska site. This is in line with published research on displacement of marine ducks by operating OWFs (Dierschke et al., 2016).</p> <p>Second, the original extent of the OWF area was modified to keep a 5-km wide, open corridor between 2 subunits of the OWF (i.e. Baltica 2, Baltica 3). The corridor should enable birds to migrate</p>	<p>The project will not lead to excess mortality of the species, as the levels of mortality generated by wind turbines will be negligible at the population level due to high avoidance of wind turbines by the species. Nevertheless, the impact will be reduced due to the planned automated system of turbine curtailment, containing radar and automated bird identification system, shutting/slowing down chosen wind turbines located at bird trajectory.</p> <p>The project will induce minor changes in the flight trajectory during migration. This will be mitigated by creating a 5-km wide migration corridor between the two units of the OWF, as well</p>	<p>The Environmental Decision imposes the following monitoring procedures regarding seabirds and migratory birds within the constructed OWF:</p> <ul style="list-style-type: none"> <li>- <b>seabird</b> monitoring within the OWF will be conducted in 1<sup>st</sup> and 2<sup>nd</sup> year after completion of each part of the OWF, within the OWF as well as N2000 Ławica Słupska</li> <li>- After that, additional monitoring will be conducted in 4<sup>th</sup> and 5<sup>th</sup> year;</li> <li>- The monitoring must include flight altitude,</li> </ul>

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
	<p>the area between the wind turbines will be excluded as resting/foraging areas for the species.</p> <p>In case of exclusion during migration flights, it will impose some energetic costs for the birds (which will change their route to avoid OWF); however, that effect is unlikely to be significant – modelling approaches performed for the Environmental Impact Assessment show that for seaducks migrating between the Baltic Sea and their breeding grounds in the Arctic, the additional energetic costs of avoiding the OWF area are at level of below 1% of total energetic costs of migration (route increased by 12,3 km). Therefore, that impact was assessed as minor. However, its effect can be mitigated (see Mitigation)</p> <p>In case of exclusion from resting/foraging habitats during winter, wintering and resting sea ducks will be displaced from the OWF area and +/- 2 km from its surroundings. This impact was assessed as minor or medium (depending on the seaduck species, with medium for Long-tailed duck and minor for Velvet scoter). However, its effect can be mitigated (see Mitigation).</p> <p>In case of offshore CI, the negative impact of the Project will be temporary, limited to</p>	<p>freely to and from the north-east to reach the N2000 site Ławica Słupska.</p> <p>Third, construction works that require piling (and lead to noise pollution) will not be performed between 1st November and 30th April, to avoid disturbing wintering/migrating birds. In the same period of time, vessels engaged in construction works are prevented from entering N2000 Ławica Słupska.</p> <p>Fourth, the construction of wind turbine towers is required to be tubular instead of lattice, to reduce the potential bird collisions.</p>	<p>as moving the OWF turbines from the edge of N2000 site Ławica Słupska, which is a critical habitat for sea ducks.</p> <p>The project will generate local displacement from foraging/resting areas on sea surface. This will be mitigated by moving the OWF turbines 2 km from the edge of N2000 site Ławica Słupska, to minimize the impact on birds using the N2000 area for wintering. Nevertheless, the birds currently using the OWF+2 km zone for winter foraging will be permanently displaced after completion of the project (wintering habitat loss). However, the OWF area provides only suboptimal winter foraging habitat for the species, as it prefers water up to 20-30 m deep (diving deeper in search for food is less profitable in context of energetic costs), while 94% of the OWF area is deeper than 30 m. Consistently, the numbers and densities of Common scoters observed on water surface within the OWF</p>	<p>airspace use intensity, flight direction;</p> <ul style="list-style-type: none"> <li>- Seabird monitoring must be performed from September to May (at least 10 controls)</li> <li>- <b>Migratory</b> birds monitoring within the OWF will be conducted in 1<sup>st</sup> and 3<sup>rd</sup> year after completion of each part of the OWF, and in 5<sup>th</sup> year after completion of the whole project;</li> </ul> <p>Monitoring must be performed twice in each season (spring, autumn; at least 10 days/season, night and day, using radar, visual and acoustic observations).</p>

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
	<p>short-time displacement of birds during construction works. As macrozoobenthic communities (i.e. food source for seaducks) along the undersea cable are expected to recover after a few seasons, no long-term negative effects of offshore CI are expected.</p>		<p>area+2nm buffer zone were consistently lower (by an order of magnitude) than within the SPA/SAC PLC990001 Ławica Słupska (i.e. 3 birds vs. 451 birds). As a consequence, displacement of a small but measurable fraction of the wintering population towards optimal habitats located in immediate vicinity of the Project should not translate to measurable adverse effect on the Common scoter population at regional or global scale.</p> <p>As a consequence, <b>the completion of the Project will not generate significant adverse effect on Common scoter population wintering in the Baltic Sea.</b></p> <p>In terms of the (critical) habitat of the Common scoter, the project will lead to measurable, permanent loss of 0.6% of the EAAA. However, this area consists of suboptimal habitat (see above). As a consequence, <b>the completion</b></p>	

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
			<p><b>of the Project is unlikely to lead to significant, adverse effect on the entire extent of the critical habitat of the species within EAAA.</b></p>	
<p>Black-throated loon (Arctic loon) <i>Gavia arctica</i></p>	<p>Both loon species are strongly affected by OWFs through displacement – birds avoid areas around the operating OWFs (Mendel et al., 2019). This may negatively affect individual fitness due to increased competition for resources and increased energy expenditure, which in turn could negatively affect population size in the long term. However, population modelling suggest that long-term negative impact on population numbers is unlikely, and it should not exceed 2% (Topping &amp; Petersen, 2011)</p> <p>In terms of collisions, their collision rate is ranked as average, as they rarely fly at the OWF blade height (Furness et al., 2013).</p>	<p>The Environmental Decision imposes the following mitigation procedures to minimize the impact seabirds using the OWF as well as the neighbouring N2000 area Ławica Słupska as migration corridor/wintering habitat.</p> <p>First, the original span of the OWF area was modified to fulfill the requirement of keeping the OWF at least 2 km from the edge of N2000 Słupska site.</p> <p>Second, the original extent of the OWF area was modified to keep a 5-km wide, open corridor between 2 subunits of the OWF (i.e. Baltica 2, Baltica 3). The corridor should enable birds to migrate freely to and from the north-east to reach the N2000 site Ławica Słupska.</p>	<p>The project will not lead to excess mortality of the species, as the levels of mortality generated by wind turbines will be negligible at the population level due to high avoidance of wind turbines by the species. Nevertheless, the impact may be further reduced due to the planned automated system of turbine curtailment, containing radar and automated bird identification system, shutting/slowing down chosen wind turbines located at bird trajectory. However, in preliminary analyses of such systems performed for the project, Black-throated loon was assessed as a low-risk species, and not being a primary target of such a system.</p>	<p>The Environmental Decision imposes the following monitoring procedures regarding seabirds and migratory birds within the constructed OWF:</p> <ul style="list-style-type: none"> <li>- <b>seabird</b> monitoring within the OWF will be conducted in 1<sup>st</sup> and 2<sup>nd</sup> year after completion of each part of the OWF, within the OWF as well as N2000 Ławica Słupska</li> <li>- After that, additional monitoring will be conducted in 4<sup>th</sup> and 5<sup>th</sup> year;</li> </ul>

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
		<p>Third, construction works that require piling (and lead to noise pollution) will not be performed between 1st November and 30th April, to avoid disturbing wintering/migrating birds. In the same period of time, vessels engaged in construction works are prevented from entering N2000 Ławica Słupska.</p> <p>Fourth, the construction of wind turbine towers is required to be tubular instead of lattice, to reduce the potential bird collisions.</p> <p>Fifth, The monitoring and WTG shut-down system will ensure adequate spatial coverage to cover the entire OWF with radar and all perimeters covered with cameras and the ability to operate (identify target species) in adverse weather conditions and at night</p> <ul style="list-style-type: none"> <li>- WTG shut-down system will include: radar, set of day and night cameras and identification system,</li> <li>- Specifications of scenario which will trigger shut-down procedure will be prepared in between Project, Lenders and LIESC,</li> </ul>	<p>The project will induce minor changes in the flight trajectory during migration. This will be mitigated by creating a 5-km wide migration corridor between the two units of the OWF, as well as moving the OWF turbines from the edge of N2000 site Ławica Słupska.</p> <p>The project will generate local displacement from foraging/resting areas on sea surface. This will be mitigated by moving the OWF turbines 2 km from the edge of N2000 site Ławica Słupska, to minimize the impact on birds using the N2000 area for wintering. Nevertheless, the birds currently using the OWF and its vicinity for winter foraging will be permanently displaced after completion of the project (wintering habitat loss). However, the number of Black-throated loons observed on water surface during winter within either OWF+2nm zone or N2000 Ławica Słupska was very</p>	<ul style="list-style-type: none"> <li>- The monitoring must include flight altitude, airspace use intensity, flight direction;</li> <li>- Seabird monitoring must be performed from September to May (at least 10 controls)</li> <li>- <b>Migratory</b> birds monitoring within the OWF will be conducted in 1<sup>st</sup> and 3<sup>rd</sup> year after completion of each part of the OWF, and in 5<sup>th</sup> year after completion of the whole project;</li> </ul> <p>Monitoring must be performed twice in each season (spring, autumn; at least 10 days/season, night and day, using radar, visual and acoustic observations).</p>

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
		<p>- The trigger for creation of such specifications will be material increase in collisions compared with modelled number of collisions for EIA and/or conditions imposed by the Environmental Authority,</p> <p>- Threshold of material increase of collisions will be for bird species indicated in CHA as Critical Habitat/Priority Biodiversity Features,</p> <p>- The details of the system including the criteria/thresholds for the system to shutdown/slowdown will be detailed and implemented via the Biodiversity Management Plan which shall not be in contradiction with the requirements imposed by the Environmental Authority. This detailed description will inter alia include parameters of bird (species, size of flock, conservation status) status) and parameters of shut down/slow down (to which speed)</p> <p>Each shutdown/slowdown event triggered by the BMP requirements (shutdown/slowdown parameters met) must be subject to prompt reporting to Lenders within the quarterly E&amp;S self-monitoring reports.</p>	<p>small (15 vs. 32 individuals, respectively).</p> <p>As a consequence, displacement of a small but measurable fraction of the wintering population towards should not translate to significant adverse effect on the Black-throated loon population at regional or global scale. Therefore, <b>the completion of the Project will not generate significant adverse effect on Black-throated loon populations.</b></p> <p>In terms of the (critical) habitat of the Black-throated Loon, the project will lead to measurable, permanent loss of 0.6% of the EAAA. Such fraction is negligible, especially that the species seems to be present in the area in very low numbers. As a consequence, <b>the completion of the Project is unlikely to lead to significant, adverse effect on the entire extent of the critical habitat of the species within EAAA.</b></p>	

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
		<p>In the event shutdown/slowdown criteria in the BMP are triggered, and shutdown/slowdown is <b>not</b> activated potentially resulting in bird collisions, such failure will be considered an incident and shall be reported to Lenders, in accordance with the requirements outlined in the CTA, and to the Environmental Authority, along with a brief explanation for the failure to activate a shutdown/slowdown. Lenders at their sole discretion will have the right to request a more detailed investigation and/or preparation of a Corrective Action Plan (CAP) in the event of each material incident</p>		
<p>Red-throated loon <i>Gavia stellata</i></p>	<p>Both loon species are strongly affected by OWFs through displacement – birds avoid areas up to 16 km from the operating OWFs (Mendel et al., 2019). This may negatively affect individual fitness due to increased competition for resources and increased energy expenditure, which in turn could negatively affect population size in the long term. However, population modelling suggests that long-term negative impact on population numbers is unlikely, and it should not exceed 2% (Topping &amp; Petersen, 2011)</p>	<p>The Environmental Decision imposes the following mitigation procedures to minimize the impact seabirds using the OWF as well as the neighbouring N2000 area Ławica Słupska as migration corridor/wintering habitat.</p> <p>First, the original span of the OWF area was modified to fulfill the requirement of keeping the OWF at least 2 km from the edge of N2000 Słupska site. This is in line with published research on displacement of marine ducks by operating OWFs (Dierschke et al., 2016).</p>	<p>The project will not lead to excess mortality of the species, as the levels of mortality generated by wind turbines will be negligible at the population level due to high avoidance of wind turbines by the species. Nevertheless, the impact may be further reduced due to the planned automated system of turbine curtailment, containing radar and automated bird identification system, shutting/slowing down chosen wind turbines located at bird</p>	<p>The Environmental Decision imposes the following monitoring procedures regarding seabirds and migratory birds within the constructed OWF:</p> <ul style="list-style-type: none"> <li>- <b>seabird</b> monitoring within the OWF will be conducted in 1<sup>st</sup> and 2<sup>nd</sup> year after completion of each part of the OWF, within the OWF as</li> </ul>

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
	<p>In terms of collisions, their collision rate is ranked as average, as they rarely fly at the OWF blade height (Furness et al., 2013).</p>	<p>Second, the original extent of the OWF area was modified to keep a 5-km wide, open corridor between 2 subunits of the OWF (i.e. Baltica 2, Baltica 3). The corridor should enable birds to migrate freely to and from the north-east to reach the N2000 site Ławica Słupska.</p> <p>Third, construction works that require piling (and lead to noise pollution) will not be performed between 1st November and 30th April, to avoid disturbing wintering/migrating birds. In the same period of time, vessels engaged in construction works are prevented from entering N2000 Ławica Słupska.</p> <p>Fourth, the construction of wind turbine towers is required to be tubular instead of lattice, to reduce the potential bird collisions.</p> <p>Fifth, The monitoring and WTG shut-down system will ensure adequate spatial coverage to cover the entire OWF with radar and all perimeters covered with cameras and the ability to</p>	<p>trajectory. However, in preliminary analyses of such systems performed for the project, Red-throated loon was assessed as a low-risk species, and not being a primary target of such a system.</p> <p>The project will induce minor changes in the flight trajectory during migration. This will be mitigated by creating a 5-km wide migration corridor between the two units of the OWF, as well as moving the OWF turbines from the edge of N2000 site Ławica Słupska.</p> <p>The project will generate local displacement from foraging/resting areas on sea surface. This will be mitigated by moving the OWF turbines 2 km from the edge of N2000 site Ławica Słupska, to minimize the impact on birds using the N2000 area for wintering. Nevertheless, the birds currently using the OWF and its vicinity for winter foraging will be permanently displaced after completion of the</p>	<p>well as N2000 Ławica Słupska</p> <ul style="list-style-type: none"> <li>- After that, additional monitoring will be conducted in 4<sup>th</sup> and 5<sup>th</sup> year;</li> <li>- The monitoring must include flight altitude, airspace use intensity, flight direction;</li> <li>- Seabird monitoring must be performed from September to May (at least 10 controls)</li> <li>- <b>Migratory</b> birds monitoring within the OWF will be conducted in 1<sup>st</sup> and 3<sup>rd</sup> year after completion of each part of the OWF, and in 5<sup>th</sup> year after completion of the whole project;</li> </ul> <p>Monitoring must be performed twice in each season (spring, autumn; at least 10 days/season, night and day, using</p>



Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
		<p>operate (identify target species) in adverse weather conditions and at night</p> <ul style="list-style-type: none"> <li>- WTG shut-down system will include: radar, set of day and night cameras and identification system,</li> <li>- Specifications of scenario which will trigger shut-down procedure will be prepared in between Project, Lenders and LIESC,</li> <li>- The trigger for creation of such specifications will be material increase in collisions compared with modelled number of collisions for EIA and/or conditions imposed by the Environmental Authority,</li> <li>- Threshold of material increase of collisions will be for bird species indicated in CHA as Critical Habitat/Priority Biodiversity Features,</li> <li>- The details of the system including the criteria/thresholds for the system to shutdown/slowdown will be detailed and implemented via the Biodiversity Management Plan which shall not be in contradiction with the requirements imposed by the Environmental Authority. This detailed description will inter alia include parameters of bird</li> </ul>	<p>project (wintering habitat loss). However, the number of Red-throated loons observed on water surface during winter within both OWF+2nm zone or N2000 Ławica Słupska was very small (5 individuals in total).</p> <p>As a consequence, displacement of a small but measurable fraction of the wintering population should not translate to significant adverse effect on the Black-throated loon population at regional or global scale. Therefore, <b>the completion of the Project will not generate significant adverse effect on Red-throated loon populations.</b></p> <p>In terms of the (critical) habitat of the Red-throated Loon, the project will lead to permanent loss of 0.6% of the EAAA. Such fraction is measurable though negligible, especially that the species seems to be present in the area in very low numbers. As a consequence, <b>the completion of the Project is</b></p>	<p>radar, visual and acoustic observations).</p>

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
		<p>(species, size of flock, conservation status) status) and parameters of shut down/slow down (to which speed)</p> <p>Each shutdown/slowdown event triggered by the BMP requirements (shutdown/slowdown parameters met) must be subject to prompt reporting to Lenders within the quarterly E&amp;S self-monitoring reports.</p> <p>In the event shutdown/slowdown criteria in the BMP are triggered, and shutdown/slowdown is <b>not</b> activated potentially resulting in bird collisions, such failure will considered an incident and shall be reported to Lenders, in accordance with the requirements outlined in the CTA, and to the Environmental Authority, along with a brief explanation for the failure to activate a shutdown/slowdown. Lenders at their sole discretion will have the right to request a more detailed investigation and/or preparation of a Corrective Action Plan (CAP) in the event of each material incident</p>	<p><b>unlikely to lead to significant, adverse effect on the entire extent of the critical habitat of the species within EAAA.</b></p>	
Whooper swan <i>Cygnus cygnus</i>	That species crosses the Project area during migration, but does not use habitats within the Aol of the Project for resting, foraging etc. As a consequence, the potential impacts are limited to	The Environmental Decision imposes the following mitigation procedures to minimize the impact on birds using the OWF as well as the neighbouring	The project will not lead to excess mortality of the species, as the levels of mortality generated by wind turbines will be negligible at the population	The Environmental Decision imposes the following monitoring procedures regarding seabirds and migratory

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
	<p>collisions and displacement (i.e. induced change on the migration route).</p> <p>Swans in general have been proved to have high collision avoidance rate with wind turbines (Desholm et al, 2005). As a consequence, the OWF installation will not be linked with significant additional mortality of the species – the mortality modelling performed for Environmental Impact Assessment indicated OWF-induced mortality at the level of less than 1 individual per year, which is negligible on local, regional and global scale in case of that species.</p> <p>In case of exclusion during migration flights, it will impose some energetic costs for the birds (which will change their route to avoid OWF); however, that effect is unlikely to be significant – modelling approaches performed for the Environmental Impact Assessment show that for seaducks migrating between the Baltic Sea and their breeding grounds in the Arctic, the additional energetic costs of avoiding the OWF area are at level of below 1% of total energetic costs of migration (route increased by 12,3 km). Therefore, that impact was assessed as negligible for all swans. This effect can be mitigated (see Mitigation)</p>	<p>N2000 area Ławica Słupska as migration corridor/wintering habitat.</p> <p>First, the original span of the OWF area was modified to fulfill the requirement of keeping the OWF at least 2 km from the edge of N2000 Słupska site. This is in line with published research on displacement of marine ducks by operating OWFs (Dierschke et al., 2016).</p> <p>Second, the original extent of the OWF area was modified to keep a 5-km wide, open corridor between 2 subunits of the OWF (i.e. Baltica 2, Baltica 3). The corridor should enable birds to migrate freely to and from the north-east to reach the N2000 site Ławica Słupska.</p> <p>Third, construction works that require piling (and lead to noise pollution) will not be performed between 1st November and 30th April, to avoid disturbing wintering/migrating birds. In the same period of time, vessels engaged in construction works are prevented from entering N2000 Ławica Słupska.</p>	<p>level. Nevertheless, the impact may be further reduced due to the planned automated system of turbine curtailment, containing radar and automated bird identification system, shutting/slowing down chosen wind turbines located at bird trajectory.</p> <p>The project will induce minor but measurable changes in the flight trajectory during migration. This will be mitigated by creating a 5-km wide migration corridor between the two units of the OWF.</p> <p>As a consequence, the completion of the Project will not generate significant adverse effect on populations of swans (Whooper swan, Tundra swan, Mute swan).</p> <p>In terms of the (critical) habitat of the species, the Project encroaches only a minor though measurable fraction of the EAAA (0.6%). Importantly, the majority of the Project area</p>	<p>birds within the constructed OWF:</p> <ul style="list-style-type: none"> <li>- <b>seabird</b> monitoring within the OWF will be conducted in 1<sup>st</sup> and 2<sup>nd</sup> year after completion of each part of the OWF, within the OWF as well as N2000 Ławica Słupska</li> <li>- After that, additional monitoring will be conducted in 4<sup>th</sup> and 5<sup>th</sup> year;</li> <li>- The monitoring must include flight altitude, airspace use intensity, flight direction;</li> <li>- Seabird monitoring must be performed from September to May (at least 10 controls)</li> <li>- <b>Migratory</b> birds monitoring within the OWF will be conducted in 1<sup>st</sup> and 3<sup>rd</sup> year after</li> </ul>

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
		<p>Fourth, the construction of wind turbine towers is required to be tubular instead of lattice, to reduce the potential bird collisions.</p> <p>Fifth, The monitoring and WTG shut-down system will ensure adequate spatial coverage to cover the entire OWF with radar and all perimeters covered with cameras and the ability to operate (identify target species) in adverse weather conditions and at night</p> <ul style="list-style-type: none"> <li>- WTG shut-down system will include: radar, set of day and night cameras and identification system,</li> <li>- Specifications of scenario which will trigger shut-down procedure will be prepared in between Project, Lenders and LIESC,</li> <li>- The trigger for creation of such specifications will be material increase in collisions compared with modelled number of collisions for EIA and/or conditions imposed by the Environmental Authority,</li> <li>- Threshold of material increase of collisions will be for bird species</li> </ul>	<p>is located offshore, ie. within areas that are used for migration only, and are not part of the species' core habitats. As a consequence, the <b>project will not lead to significant, adverse effect in critical habitat of the species.</b></p>	<p>completion of each part of the OWF, and in 5<sup>th</sup> year after completion of the whole project;</p> <p>Monitoring must be performed twice in each season (spring, autumn; at least 10 days/season, night and day, using radar, visual and acoustic observations).</p>

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
		<p>indicated in CHA as Critical Habitat/Priority Biodiversity Features,</p> <p>- The details of the system including the criteria/thresholds for the system to shutdown/slowdown will be detailed and implemented via the Biodiversity Management Plan which shall not be in contradiction with the requirements imposed by the Environmental Authority. This detailed description will inter alia include parameters of bird (species, size of flock, conservation status) status) and parameters of shut down/slow down (to which speed)</p> <p>Each shutdown/slowdown event triggered by the BMP requirements (shutdown/slowdown parameters met) must be subject to prompt reporting to Lenders within the quarterly E&amp;S self-monitoring reports.</p> <p>In the event shutdown/slowdown criteria in the BMP are triggered, and shutdown/slowdown is <b>not</b> activated potentially resulting in bird collisions, such failure will be considered an incident and shall be reported to Lenders, in accordance with the requirements outlined in the CTA, and to the Environmental Authority, along with a brief explanation for the failure to</p>		

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
		<p>activate a shutdown/slowdown. Lenders at their sole discretion will have the right to request a more detailed investigation and/or preparation of a Corrective Action Plan (CAP) in the event of each material incident</p>		
<p>Tundra swan <i>Cygnus bewickii</i></p>	<p>That species crosses the Project area during migration, but does not use habitats within the Aol of the Project for resting, foraging etc. As a consequence, the potential impacts are limited to collisions and displacement (i.e. induced change on the migration route).</p> <p>Swans in general have been proved to have high collision avoidance rate with wind turbines (Desholm et al, 2005). As a consequence, the OWF installation will not be linked with significant additional mortality of the species – the mortality modelling performed for Environmental Impact Assessment indicated OWF-induced mortality at the level of less than 1 individual per year, which is negligible on local, regional and global scale in case of that species.</p> <p>In case of exclusion during migration flights, it will impose some energetic costs for the birds (which will change their route to avoid OWF); however, that effect is</p>	<p>The Environmental Decision imposes the following mitigation procedures to minimize the impact on birds using the OWF as well as the neighbouring N2000 area Ławica Słupska as migration corridor/wintering habitat.</p> <p>First, the original span of the OWF area was modified to fulfill the requirement of keeping the OWF at least 2 km from the edge of N2000 Słupska site. This is in line with published research on displacement of marine ducks by operating OWFs (Dierschke et al., 2016).</p> <p>Second, the original extent of the OWF area was modified to keep a 5-km wide, open corridor between 2 subunits of the OWF (i.e. Baltica 2, Baltica 3). The corridor should enable birds to migrate freely to and from the north-east to reach the N2000 site Ławica Słupska.</p>	<p>The project will not lead to excess mortality of the species, as the levels of mortality generated by wind turbines will be negligible at the population level. Nevertheless, the impact will be reduced due to the planned automated system of turbine curtailment, containing radar and automated bird identification system, shutting/slowing down chosen wind turbines located at bird trajectory.</p> <p>The project will induce minor but measurable changes in the flight trajectory during migration. This will be mitigated by creating a 5-km wide migration corridor between the two units of the OWF.</p>	<p>The Environmental Decision imposes the following monitoring procedures regarding seabirds and migratory birds within the constructed OWF:</p> <ul style="list-style-type: none"> <li>- <b>seabird</b> monitoring within the OWF will be conducted in 1<sup>st</sup> and 2<sup>nd</sup> year after completion of each part of the OWF, within the OWF as well as N2000 Ławica Słupska</li> <li>- After that, additional monitoring will be conducted in 4<sup>th</sup> and 5<sup>th</sup> year;</li> <li>- The monitoring must include flight altitude, airspace use</li> </ul>

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
	<p>unlikely to be significant – modelling approaches performed for the Environmental Impact Assessment show that for seaducks migrating between the Baltic Sea and their breeding grounds in the Arctic, the additional energetic costs of avoiding the OWF area are at level of below 1% of total energetic costs of migration (route increased by 12,3 km). Therefore, that impact was assessed as negligible for all swans. This effect can be mitigated (see Mitigation)</p>	<p>Third, construction works that require piling (and lead to noise pollution) will not be performed between 1st November and 30th April, to avoid disturbing wintering/migrating birds. In the same period of time, vessels engaged in construction works are prevented from entering N2000 Ławica Słupska.</p> <p>Fourth, the construction of wind turbine towers is required to be tubular instead of lattice, to reduce the potential bird collisions.</p> <p>Fifth, The monitoring and WTG shut-down system will ensure adequate spatial coverage to cover the entire OWF with radar and all perimeters covered with cameras and the ability to operate (identify target species) in adverse weather conditions and at night</p> <ul style="list-style-type: none"> <li>- WTG shut-down system will include: radar, set of day and night cameras and identification system,</li> <li>- Specifications of scenario which will trigger shut-down procedure will be prepared in between Project, Lenders and LIESC,</li> </ul>	<p>As a consequence, the completion of the Project will not generate significant adverse effect on populations of swans (Whooper swan, Tundra swan, Mute swan).</p> <p>In terms of the (critical) habitat of the species, the Project encroaches only a measurable but minor fraction of the EAAA (0.6%). Importantly, the majority of the Project area is located offshore, ie. within areas that are used for migration only, and are not part of the species' core habitats. As a consequence, the <b>project will not lead to significant, adverse effect in critical habitat of the species.</b></p>	<p>intensity, flight direction;</p> <ul style="list-style-type: none"> <li>- Seabird monitoring must be performed from September to May (at least 10 controls)</li> <li>- <b>Migratory</b> birds monitoring within the OWF will be conducted in 1<sup>st</sup> and 3<sup>rd</sup> year after completion of each part of the OWF, and in 5<sup>th</sup> year after completion of the whole project;</li> </ul> <p>Monitoring must be performed twice in each season (spring, autumn; at least 10 days/season, night and day, using radar, visual and acoustic observations).</p>

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
		<p>- The trigger for creation of such specifications will be material increase in collisions compared with modelled number of collisions for EIA and/or conditions imposed by the Environmental Authority,</p> <p>- Threshold of material increase of collisions will be for bird species indicated in CHA as Critical Habitat/Priority Biodiversity Features,</p> <p>- The details of the system including the criteria/thresholds for the system to shutdown/slowdown will be detailed and implemented via the Biodiversity Management Plan which shall not be in contradiction with the requirements imposed by the Environmental Authority. This detailed description will inter alia include parameters of bird (species, size of flock, conservation status) status) and parameters of shutdown/slow down (to which speed)</p> <p>Each shutdown/slowdown event triggered by the BMP requirements (shutdown/slowdown parameters met) must be subject to prompt reporting to Lenders within the quarterly E&amp;S self-monitoring reports.</p>		



Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
		<p>In the event shutdown/slowdown criteria in the BMP are triggered, and shutdown/slowdown is <b>not</b> activated potentially resulting in bird collisions, such failure will be considered an incident and shall be reported to Lenders, in accordance with the requirements outlined in the CTA, and to the Environmental Authority, along with a brief explanation for the failure to activate a shutdown/slowdown. Lenders at their sole discretion will have the right to request a more detailed investigation and/or preparation of a Corrective Action Plan (CAP) in the event of each material incident</p>		
<p>European Nightjar <i>Caprimulgus europaeus</i></p>	<p>The species is present in forested landscapes within the Aol of Onshore CI; it has not been observed during bird migration monitoring within the planned OWF, and is therefore is not considered as prone to mortality driven by wind turbines. It may be subject to mortality linked to collisions with overhead cables and other elements of high-voltage infrastructure, although such mortality is rather associated with larger species, like birds of prey; therefore, its impact is considered negligible.</p>	<p>In case of onshore CI, the Environmental Decision imposes the requirement to install markers, such as signal spirals, on lightning conductors within high-voltage infrastructure to limit the scale of bird collisions (spaced not less than 25 m per conductor).</p>	<p>The population in the EAAA (+10 km inland along Polish coast) is unknown, while the Area of Impact of onshore CI was proven holds at least 2 breeding territories of the species (measurable but negligible in the context of national, regional and global population). The species within the Aol will be temporarily impacted by construction works, but may benefit in the long term from creation of open habitat; nevertheless, the impacted</p>	<p>The monitoring of potential bird mortality cause by overhead cables and other elements of high-voltage infrastructure will be performed in 2<sup>nd</sup> and 3<sup>rd</sup> after completion of investment (onshore CI).</p>

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
	<p>The species will temporarily be affected by construction works, but in the long term will probably benefit from creating a treeless line in the landscape (European Nightjar is linked with forest habitats, but needs open spaces for foraging).</p>		<p>habitat is negligible in the context of EAAA.</p> <p><b>The completion of the Project will not generate significant adverse effect on European nightjar both in terms of population and area impacted.</b></p>	
<p>Razorbill <i>Alca torda</i></p>	<p>Auks in general have been proved to have low risk of collision with wind turbines, as they almost always fly low over sea level (&lt;50 m, i.e. below the rotor blades). Therefore, the species will not be affected by any potential mortality generated by the project.</p> <p>In case of migrations, razorbills probably do not change their flight routes in reaction to OWFs, therefore this impact is negligible.</p> <p>There is a potential for partial displacement of Razorbills from areas covered by OWF and used by that species for resting and foraging. However, as the numbers of birds observed on the water surface (not in flight) during the Environmental Inventory were relatively low, the negative effect of that displacement on the level of regional population was assessed as negligible (and will be mitigated).</p>	<p>The Environmental Decision imposed the following mitigation procedures to minimize the impact on seabird using the OWF as well as the neighbouring N2000 area Ławica Słupska as migration corridor/wintering habitat.</p> <p>First, the original span of the OWF area was modified to fulfill the requirement of keeping the OWF at least 2 km from the edge of N2000 Słupska site.</p> <p>Second, the original extent of the OWF area was modified to keep a 5-km wide, open corridor between 2 subunits of the OWF (i.e. Baltica 2, Baltica 3). The corridor should enable birds to migrate freely to and from the north-east to reach the N2000 site Ławica Słupska.</p> <p>Third, construction works that require piling (and lead to noise pollution) will</p>	<p>The project will not lead to excess mortality of the species, as the levels of mortality generated by wind turbines will be negligible at the population level due to high avoidance of wind turbines by the species. Nevertheless, the impact may be further reduced due to the planned automated system of turbine curtailment, containing radar and automated bird identification system, shutting/slowing down chosen wind turbines located at bird trajectory. However, in preliminary analyses of such systems performed for the project, Razorbill was assessed as a low-risk species, and not being a primary target of such a system.</p>	<p>The Environmental Decision imposes the following monitoring procedures regarding seabirds and migratory birds within the constructed OWF:</p> <ul style="list-style-type: none"> <li>- <b>seabird</b> monitoring within the OWF will be conducted in 1<sup>st</sup> and 2<sup>nd</sup> year after completion of each part of the OWF, within the OWF as well as N2000 Ławica Słupska</li> <li>- After that, additional monitoring will be conducted in 4<sup>th</sup> and 5<sup>th</sup> year;</li> </ul>

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
		<p>not be performed between 1st November and 30th April, to avoid disturbing wintering/migrating birds. In the same period of time, vessels engaged in construction works are prevented from entering N2000 Ławica Słupska.</p> <p>Fourth, the construction of wind turbine towers is required to be tubular instead of lattice, to reduce the potential bird collisions.</p> <p>Fifth, The monitoring and WTG shut-down system will ensure adequate spatial coverage to cover the entire OWF with radar and all perimeters covered with cameras and the ability to operate (identify target species) in adverse weather conditions and at night</p> <ul style="list-style-type: none"> <li>- WTG shut-down system will include: radar, set of day and night cameras and identification system,</li> <li>- Specifications of scenario which will trigger shut-down procedure will be prepared in between Project, Lenders and LIESC,</li> <li>- The trigger for creation of such specifications will be material increase</li> </ul>	<p>Any potential impact of the Project on migration routes of the species (which is unlikely) will be mitigated by creating a 5-km wide migration corridor between the two units of the OWF to enable free migration to and from N2000 Ławica Słupska.</p> <p>For Razorbills, the project will generate local displacement from winter foraging areas. This will be mitigated by moving the OWF turbines 2 km from the edge of N2000 site Ławica Słupska, to minimize the impact on birds using the N2000 area for wintering. Nevertheless, the birds currently using the OWF+2 km zone for winter foraging will be permanently displaced after completion of the project (wintering habitat loss). Overall, 608 Razorbills were observed on water surface within the OWF+2nm, while 137 individuals were observed within neighbouring SPA/SAC PLC990001 Ławica Słupska; as</p>	<ul style="list-style-type: none"> <li>- The monitoring must include flight altitude, airspace use intensity, flight direction;</li> <li>- Seabird monitoring must be performed from September to May (at least 10 controls)</li> <li>- <b>Migratory</b> birds monitoring within the OWF will be conducted in 1<sup>st</sup> and 3<sup>rd</sup> year after completion of each part of the OWF, and in 5<sup>th</sup> year after completion of the whole project;</li> </ul> <p>Monitoring must be performed twice in each season (spring, autumn; at least 10 days/season, night and day, using radar, visual and acoustic observations).</p>

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		<p>in collisions compared with modelled number of collisions for EIA and/or conditions imposed by the Environmental Authority,</p> <ul style="list-style-type: none"> <li>- Threshold of material increase of collisions will be for bird species indicated in CHA as Critical Habitat/Priority Biodiversity Features,</li> <li>- The details of the system including the criteria/thresholds for the system to shutdown/slowdown will be detailed and implemented via the Biodiversity Management Plan which shall not be in contradiction with the requirements imposed by the Environmental Authority. This detailed description will inter alia include parameters of bird (species, size of flock, conservation status) status) and parameters of shut down/slow down (to which speed)</li> </ul> <p>Each shutdown/slowdown event triggered by the BMP requirements (shutdown/slowdown parameters met) must be subject to prompt reporting to Lenders within the quarterly E&amp;S self-monitoring reports.</p> <p>In the event shutdown/slowdown criteria in the BMP are triggered, and shutdown/slowdown is <b>not</b> activated</p>	<p>a consequence, Razorbill densities were higher within the Project Area than in neighbouring protected area. Nevertheless, the number of birds potentially displaced is a small but measurable fraction of the entire population wintering in the Baltic Sea (approx.. 150,000, i.e. 0,4%), and the birds are likely to move to protected habitats in immediate vicinity; additionally, the presence of constructed OWF may potentially boost fish densities in the area in the future, contributing to food resources used by the species ('artificial reef' as well as fishery exclusion).</p> <p>As a consequence, <b>the completion of the Project will not generate significant adverse effect on Razorbill populations.</b></p> <p>In terms of the (critical) habitat of the species, the Project encroaches only a measurable but minor fraction of the EAAA</p>	

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
		<p>potentially resulting in bird collisions, such failure will be considered an incident and shall be reported to Lenders, in accordance with the requirements outlined in the CTA, and to the Environmental Authority, along with a brief explanation for the failure to activate a shutdown/slowdown. Lenders at their sole discretion will have the right to request a more detailed investigation and/or preparation of a Corrective Action Plan (CAP) in the event of each material incident</p>	<p>(0.6%). As a consequence, the <b>project will not lead to significant, adverse effect in critical habitat of the species.</b></p>	
<p>Black Guillemot <i>Cephus grylle</i></p>	<p>Auks in general have been proved to have low risk of collision with wind turbines, as they almost always fly low over sea level (&lt;50 m, i.e. below the rotor blades). Therefore, the species will not be affected by any potential mortality generated by the project.</p> <p>In case of migrations, Black guillemots probably do not change their flight routes in reaction to OWFs, therefore this impact is negligible.</p> <p>There is a potential for partial displacement of Black guillemot from areas covered by OWF and used by that species for resting and foraging.</p> <p>However, as the numbers of birds observed on the water surface (not in</p>	<p>The Environmental Decision imposed the following mitigation procedures to minimize the impact on seabird using the OWF as well as the neighbouring N2000 area Ławica Słupska as migration corridor/wintering habitat.</p> <p>First, the original span of the OWF area was modified to fulfill the requirement of keeping the OWF at least 2 km from the edge of N2000 Słupska site.</p> <p>Second, the original extent of the OWF area was modified to keep a 5-km wide, open corridor between 2 subunits of the OWF (i.e. Baltica 2, Baltica 3). The corridor should enable birds to migrate</p>	<p>The project will not lead to excess mortality of the species, as the levels of mortality generated by wind turbines will be negligible at the population level due to high avoidance of wind turbines by the species.</p> <p>Any potential impact of the Project on migration routes of the species (which is unlikely) will be mitigated by creating a 5-km wide migration corridor between the two units of the OWF to enable free migration to and from N2000 Ławica Słupska.</p>	<p>The Environmental Decision imposes the following monitoring procedures regarding seabirds and migratory birds within the constructed OWF:</p> <ul style="list-style-type: none"> <li>- <b>seabird</b> monitoring within the OWF will be conducted in 1<sup>st</sup> and 2<sup>nd</sup> year after completion of each part of the OWF, within the OWF as well as N2000 Ławica Słupska</li> </ul>

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
	<p>flight) during the Environmental Inventory were very low (11 individuals observed within OWF + 2nm, both in flight and on water surface), the negative effect of that displacement on the level of regional population was assessed as negligible (and will be mitigated).</p>	<p>freely to and from the north-east to reach the N2000 site Ławica Słupska.</p> <p>Third, construction works that require piling (and lead to noise pollution) will not be performed between 1st November and 30th April, to avoid disturbing wintering/migrating birds. In the same period of time, vessels engaged in construction works are prevented from entering N2000 Ławica Słupska.</p> <p>Fourth, the construction of wind turbine towers is required to be tubular instead of lattice, to reduce the potential bird collisions.</p> <p>Fifth, The monitoring and WTG shut-down system will ensure adequate spatial coverage to cover the entire OWF with radar and all perimeters covered with cameras and the ability to operate (identify target species) in adverse weather conditions and at night</p> <p>- WTG shut-down system will include: radar, set of day and night cameras and identification system,</p> <p>- Specifications of scenario which will trigger shut-down procedure will be</p>	<p>For Black guillemots, the project will generate local displacement from winter foraging areas. This will be mitigated by moving the OWF turbines 2 km from the edge of N2000 site Ławica Słupska, to minimize the impact on birds using the N2000 area for wintering. Nevertheless, the birds currently using the OWF+2 km zone for winter foraging will be permanently displaced after completion of the project (wintering habitat loss). However, the actual number of such birds is measurable but extremely small (Black guillemots were observed only occasionally within the planned OWF on water surface – 6 observations in total, whereas 180 birds were observed within SPA/SAC PLC990001 Ławica Słupska). As a consequence, displacement of a small fraction of the wintering population towards optimal habitats located in immediate vicinity of the Project should not translate to significant adverse effect on the Black guillemot population at regional or global scale.</p>	<ul style="list-style-type: none"> <li>- After that, additional monitoring will be conducted in 4<sup>th</sup> and 5<sup>th</sup> year;</li> <li>- The monitoring must include flight altitude, airspace use intensity, flight direction;</li> <li>- Seabird monitoring must be performed from September to May (at least 10 controls)</li> <li>- <b>Migratory</b> birds monitoring within the OWF will be conducted in 1<sup>st</sup> and 3<sup>rd</sup> year after completion of each part of the OWF, and in 5<sup>th</sup> year after completion of the whole project;</li> </ul> <p>Monitoring must be performed twice in each season (spring, autumn; at least 10 days/season, night and day, using radar, visual and acoustic observations).</p>

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
		<p>prepared in between Project, Lenders and LIESC,</p> <ul style="list-style-type: none"> <li>- The trigger for creation of such specifications will be material increase in collisions compared with modelled number of collisions for EIA and/or conditions imposed by the Environmental Authority,</li> <li>- Threshold of material increase of collisions will be for bird species indicated in CHA as Critical Habitat/Priority Biodiversity Features,</li> <li>- The details of the system including the criteria/thresholds for the system to shutdown/slowdown will be detailed and implemented via the Biodiversity Management Plan which shall not be in contradiction with the requirements imposed by the Environmental Authority. This detailed description will inter alia include parameters of bird (species, size of flock, conservation status) status) and parameters of shut down/slow down (to which speed)</li> </ul> <p>Each shutdown/slowdown event triggered by the BMP requirements (shutdown/slowdown parameters met) must be subject to prompt reporting to</p>	<p>As a consequence, <b>the completion of the Project will not generate significant adverse effect on Black guillemot populations.</b></p> <p>In terms of the (critical) habitat of the species, the Project encroaches only a measurable but minor fraction of the EAAA (0.6%). As a consequence, <b>project will not lead to significant, adverse effect in critical habitat of the species.</b></p>	

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
		<p>Lenders within the quarterly E&amp;S self-monitoring reports.</p> <p>In the event shutdown/slowdown criteria in the BMP are triggered, and shutdown/slowdown is <b>not</b> activated potentially resulting in bird collisions, such failure will be considered an incident and shall be reported to Lenders, in accordance with the requirements outlined in the CTA, and to the Environmental Authority, along with a brief explanation for the failure to activate a shutdown/slowdown. Lenders at their sole discretion will have the right to request a more detailed investigation and/or preparation of a Corrective Action Plan (CAP) in the event of each material incident</p>		
<p>Black Tern <i>Chlidonias niger</i></p>	<p>In case of all terns, the impact of mortality of the operating OWFs are relatively low, as they spend most of their time flying less than 20 m over ocean surface, searching for food. However, during migration they may also fly on higher altitudes. For all species of tern potentially migrating through the OWF area, the modelling approach performed for Environmental Impact Assessment has shown the OWF-induced mortality at the level of less than 1-4 individuals per year,</p>	<p>The Environmental Decision imposed the following mitigation procedures to minimize the impact on seabirds using the OWF as well as the neighbouring N2000 area Ławica Słupska as migration corridor/wintering habitat.</p> <p>First, the original span of the OWF area was modified to fulfill the requirement of keeping the OWF at least 2 km from the edge of N2000 Słupska site.</p>	<p>The project will not lead to excess mortality of the species, as the levels of mortality generated by wind turbines will be negligible at the population level.</p> <p>As terns in general are not strongly displaced by the OWF, this impact is also unlikely to generate strong impacts.</p>	<p>The Environmental Decision imposes the following monitoring procedures regarding seabirds and migratory birds within the constructed OWF:</p> <ul style="list-style-type: none"> <li>- <b>seabird</b> monitoring within the OWF will be conducted in 1<sup>st</sup> and 2<sup>nd</sup> year after completion of each</li> </ul>



Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
	<p>which is negligible on local, regional and global scale in case of</p> <p>Similarly to the case of gulls, the effect of displacement by the OWF from existing migration routes is negligible – as gulls have lower energy requirements during flight trajectory/route caused by OWF construction do not translate to energetic costs of migration in a measurable way.</p>	<p>Second, the original extent of the OWF area was modified to keep a 5-km wide, open corridor between 2 subunits of the OWF (i.e. Baltica 2, Baltica 3). The corridor should enable seabirds to migrate freely to and from the north-east to reach the N2000 site Ławica Słupska.</p> <p>Third, construction works that require piling (and lead to noise pollution) will not be performed between 1st November and 30th April, to avoid disturbing wintering/migrating birds. In the same period of time, vessels engaged in construction works are prevented from entering N2000 Ławica Słupska.</p> <p>Fourth, the construction of wind turbine towers is required to be tubular instead of lattice, to reduce the potential bird collisions.</p> <p>Fifth, The monitoring and WTG shut-down system will ensure adequate spatial coverage to cover the entire OWF with radar and all perimeters covered with cameras and the ability to</p>	<p>As a consequence, the completion of the Project will not generate significant adverse effect on tern populations.</p> <p>In terms of the (critical) habitat of the species, the Project encroaches only a measurable but minor fraction of the EAAA (0.6%). As a consequence, the <b>project will not lead to significant, adverse effect in critical habitat of the species.</b></p>	<p>part of the OWF, within the OWF as well as N2000 Ławica Słupska</p> <ul style="list-style-type: none"> <li>- After that, additional monitoring will be conducted in 4<sup>th</sup> and 5<sup>th</sup> year;</li> <li>- The monitoring must include flight altitude, airspace use intensity, flight direction;</li> <li>- Seabird monitoring must be performed from September to May (at least 10 controls)</li> <li>- <b>Migratory</b> birds monitoring within the OWF will be conducted in 1<sup>st</sup> and 3<sup>rd</sup> year after completion of each part of the OWF, and in 5<sup>th</sup> year after completion of the whole project;</li> </ul> <p>Monitoring must be performed twice in each season (spring, autumn; at least 10 days/season,</p>

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
		<p>operate (identify target species) in adverse weather conditions and at night</p> <ul style="list-style-type: none"> <li>- WTG shut-down system will include: radar, set of day and night cameras and identification system,</li> <li>- Specifications of scenario which will trigger shut-down procedure will be prepared in between Project, Lenders and LIESC,</li> <li>- The trigger for creation of such specifications will be material increase in collisions compared with modelled number of collisions for EIA and/or conditions imposed by the Environmental Authority,</li> <li>- Threshold of material increase of collisions will be for bird species indicated in CHA as Critical Habitat/Priority Biodiversity Features,</li> <li>- The details of the system including the criteria/thresholds for the system to shutdown/slowdown will be detailed and implemented via the Biodiversity Management Plan which shall not be in contradiction with the requirements imposed by the Environmental Authority. This detailed description will inter alia include parameters of bird</li> </ul>		<p>night and day, using radar, visual and acoustic observations).</p>

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
		<p>(species, size of flock, conservation status) status) and parameters of shut down/slow down (to which speed)</p> <p>Each shutdown/slowdown event triggered by the BMP requirements (shutdown/slowdown parameters met) must be subject to prompt reporting to Lenders within the quarterly E&amp;S self-monitoring reports.</p> <p>In the event shutdown/slowdown criteria in the BMP are triggered, and shutdown/slowdown is <b>not</b> activated potentially resulting in bird collisions, such failure will considered an incident and shall be reported to Lenders, in accordance with the requirements outlined in the CTA, and to the Environmental Authority, along with a brief explanation for the failure to activate a shutdown/slowdown. Lenders at their sole discretion will have the right to request a more detailed investigation and/or preparation of a Corrective Action Plan (CAP) in the event of each material incident</p>		
Little Gull <i>Hydrocoloeus minutus</i>	In case of all gulls, the effect of displacement from existing migration routes is negligible – as gulls have lower energy requirements during flight than e.g. ducks, potential changes in flight	The Environmental Decision imposed the following mitigation procedures to minimize the impact on seabirds using the OWF as well as the neighbouring	The project will not lead to excess mortality of the species, as the levels of mortality generated by wind turbines will	The Environmental Decision imposes the following monitoring procedures regarding seabirds and migratory

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
	<p>trajectory/route caused by OWF construction do not translate to energetic costs of migration in a measurable way.</p> <p>In case of Little gull, the modelling approach performed for Environmental Impact Assessment has shown the OWF-induced mortality of Little Gull at the level of less than 0-2 individuals per year, which is negligible on local, regional and global scale in case of that species.</p>	<p>N2000 area Ławica Słupska as migration corridor/wintering habitat.</p> <p>First, the original span of the OWF area was modified to fulfill the requirement of keeping the OWF at least 2 km from the edge of N2000 Słupska site.</p> <p>Second, the original extent of the OWF area was modified to keep a 5-km wide, open corridor between 2 subunits of the OWF (i.e. Baltica 2, Baltica 3). The corridor should enable seabirds to migrate freely to and from the north-east to reach the N2000 site Ławica Słupska.</p> <p>Third, construction works that require piling (and lead to noise pollution) will not be performed between 1st November and 30th April, to avoid disturbing wintering/migrating birds. In the same period of time, vessels engaged in construction works are prevented from entering N2000 Ławica Słupska.</p> <p>Fourth, the construction of wind turbine towers is required to be tubular instead of lattice, to reduce the potential bird collisions.</p>	<p>be negligible at the population level.</p> <p>As gulls in general are not strongly displaced by the OWF, this impact is also unlikely to generate strong impacts.</p> <p>As a consequence, the completion of the Project will not generate significant adverse effect on gull populations.</p> <p>In terms of the (critical) habitat of the species, the Project encroaches a measurable but minor fraction of the EAAA (0.6%). As a consequence, the <b>project will not lead to significant, adverse effect in critical habitat of the species.</b></p>	<p>birds within the constructed OWF:</p> <ul style="list-style-type: none"> <li>- <b>seabird</b> monitoring within the OWF will be conducted in 1<sup>st</sup> and 2<sup>nd</sup> year after completion of each part of the OWF, within the OWF as well as N2000 Ławica Słupska</li> <li>- After that, additional monitoring will be conducted in 4<sup>th</sup> and 5<sup>th</sup> year;</li> <li>- The monitoring must include flight altitude, airspace use intensity, flight direction;</li> <li>- Seabird monitoring must be performed from September to May (at least 10 controls)</li> <li>- <b>Migratory</b> birds monitoring within the OWF will be conducted in 1<sup>st</sup> and 3<sup>rd</sup> year after</li> </ul>

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
		<p>Fifth, The monitoring and WTG shut-down system will ensure adequate spatial coverage to cover the entire OWF with radar and all perimeters covered with cameras and the ability to operate (identify target species) in adverse weather conditions and at night</p> <ul style="list-style-type: none"> <li>- WTG shut-down system will include: radar, set of day and night cameras and identification system,</li> <li>- Specifications of scenario which will trigger shut-down procedure will be prepared in between Project, Lenders and LIESC,</li> <li>- The trigger for creation of such specifications will be material increase in collisions compared with modelled number of collisions for EIA and/or conditions imposed by the Environmental Authority,</li> <li>- Threshold of material increase of collisions will be for bird species indicated in CHA as Critical Habitat/Priority Biodiversity Features,</li> <li>- The details of the system including the criteria/thresholds for the system to shutdown/slowdown will be detailed and</li> </ul>		<p>completion of each part of the OWF, and in 5<sup>th</sup> year after completion of the whole project;</p> <p>Monitoring must be performed twice in each season (spring, autumn; at least 10 days/season, night and day, using radar, visual and acoustic observations).</p>

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
		<p>implemented via the Biodiversity Management Plan which shall not be in contradiction with the requirements imposed by the Environmental Authority. This detailed description will inter alia include parameters of bird (species, size of flock, conservation status) status) and parameters of shut down/slow down (to which speed)</p> <p>Each shutdown/slowdown event triggered by the BMP requirements (shutdown/slowdown parameters met) must be subject to prompt reporting to Lenders within the quarterly E&amp;S self-monitoring reports.</p> <p>In the event shutdown/slowdown criteria in the BMP are triggered, and shutdown/slowdown is <b>not</b> activated potentially resulting in bird collisions, such failure will considered an incident and shall be reported to Lenders, in accordance with the requirements outlined in the CTA, and to the Environmental Authority, along with a brief explanation for the failure to activate a shutdown/slowdown.</p> <p>Lenders at their sole discretion will have the right to request a more detailed investigation and/or preparation of a</p>		

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
		Corrective Action Plan (CAP) in the event of each material incident		
<p>Caspian tern <i>Hydroprogne caspia</i></p>	<p>In case of all terns, the impact of mortality of the operating OWFs are relatively low, as they spend most of their time flying less than 20 m over ocean surface, searching for food. However, during migration they may also fly on higher altitudes. For all species of tern potentially migrating through the OWF area, the modelling approach performed for Environmental Impact Assessment has shown the OWF-induced mortality at the level of less than 1-4 individuals per year, which is negligible on local, regional and global scale in case of</p> <p>Similarly to the case of gulls, the effect of displacement by the OWF from existing migration routes is negligible – as gulls have lower energy requirements during flight than e.g. ducks, potential changes in flight trajectory/route caused by OWF construction do not translate to energetic costs of migration in a measurable way.</p>	<p>The Environmental Decision imposed the following mitigation procedures to minimize the impact on seabirds using the OWF as well as the neighbouring N2000 area Ławica Słupska as migration corridor/wintering habitat.</p> <p>First, the original span of the OWF area was modified to fulfill the requirement of keeping the OWF at least 2 km from the edge of N2000 Słupska site.</p> <p>Second, the original extent of the OWF area was modified to keep a 5-km wide, open corridor between 2 subunits of the OWF (i.e. Baltica 2, Baltica 3). The corridor should enable seabirds to migrate freely to and from the north-east to reach the N2000 site Ławica Słupska.</p> <p>Third, construction works that require piling (and lead to noise pollution) will not be performed between 1st November and 30th April, to avoid disturbing wintering/migrating birds. In the same period of time, vessels engaged in construction works are</p>	<p>The project will not lead to excess mortality of the species, as the levels of mortality generated by wind turbines will be negligible at the population level.</p> <p>As terns in general are not strongly displaced by the OWF, this impact is also unlikely to generate strong impacts.</p> <p>As a consequence, the completion of the Project will not generate significant adverse effect on tern populations.</p> <p>In terms of the (critical) habitat of the species, the Project encroaches a measurable but minor fraction of the EAAA (0.6%). As a consequence, the <b>project will not lead to significant, adverse effect in critical habitat of the species.</b></p>	<p>The Environmental Decision imposes the following monitoring procedures regarding seabirds and migratory birds within the constructed OWF:</p> <ul style="list-style-type: none"> <li>- <b>seabird</b> monitoring within the OWF will be conducted in 1<sup>st</sup> and 2<sup>nd</sup> year after completion of each part of the OWF, within the OWF as well as N2000 Ławica Słupska</li> <li>- After that, additional monitoring will be conducted in 4<sup>th</sup> and 5<sup>th</sup> year;</li> <li>- The monitoring must include flight altitude, airspace use intensity, flight direction;</li> <li>- Seabird monitoring must be performed</li> </ul>

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
		<p>prevented from entering N2000 Ławica Słupska.</p> <p>Fourth, the construction of wind turbine towers is required to be tubular instead of lattice, to reduce the potential bird collisions.</p> <p>Fifth, The monitoring and WTG shut-down system will ensure adequate spatial coverage to cover the entire OWF with radar and all perimeters covered with cameras and the ability to operate (identify target species) in adverse weather conditions and at night</p> <ul style="list-style-type: none"> <li>- WTG shut-down system will include: radar, set of day and night cameras and identification system,</li> <li>- Specifications of scenario which will trigger shut-down procedure will be prepared in between Project, Lenders and LIESC,</li> <li>- The trigger for creation of such specifications will be material increase in collisions compared with modelled number of collisions for EIA and/or conditions imposed by the Environmental Authority,</li> </ul>		<p>from September to May (at least 10 controls)</p> <ul style="list-style-type: none"> <li>- <b>Migratory</b> birds monitoring within the OWF will be conducted in 1<sup>st</sup> and 3<sup>rd</sup> year after completion of each part of the OWF, and in 5<sup>th</sup> year after completion of the whole project;</li> </ul> <p>Monitoring must be performed twice in each season (spring, autumn; at least 10 days/season, night and day, using radar, visual and acoustic observations).</p>



Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
		<p>- Threshold of material increase of collisions will be for bird species indicated in CHA as Critical Habitat/Priority Biodiversity Features,</p> <p>- The details of the system including the criteria/thresholds for the system to shutdown/slowdown will be detailed and implemented via the Biodiversity Management Plan which shall not be in contradiction with the requirements imposed by the Environmental Authority. This detailed description will inter alia include parameters of bird (species, size of flock, conservation status) status) and parameters of shut down/slow down (to which speed)</p> <p>Each shutdown/slowdown event triggered by the BMP requirements (shutdown/slowdown parameters met) must be subject to prompt reporting to Lenders within the quarterly E&amp;S self-monitoring reports.</p> <p>In the event shutdown/slowdown criteria in the BMP are triggered, and shutdown/slowdown is <b>not</b> activated potentially resulting in bird collisions, such failure will considered an incident and shall be reported to Lenders, in accordance with the requirements outlined in the CTA, and to the</p>		

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
		<p>Environmental Authority, along with a brief explanation for the failure to activate a shutdown/slowdown. Lenders at their sole discretion will have the right to request a more detailed investigation and/or preparation of a Corrective Action Plan (CAP) in the event of each material incident</p>		
<p>European Herring Gull <i>Larus argentatus</i></p>	<p>In case of all gulls, the effect of displacement from existing migration routes is negligible – as gulls have lower energy requirements during flight than e.g. ducks, potential changes in flight trajectory/route caused by OWF construction do not translate to energetic costs of migration in a measurable way.</p> <p>In case of European herring gull, the potential OWF-induced mortality has not been modelled. However, the overall impact of collision risk was assessed as minor in Environmental Impact Assessment.</p>	<p>The Environmental Decision imposed the following mitigation procedures to minimize the impact on seabirds using the OWF as well as the neighbouring N2000 area Ławica Słupska as migration corridor/wintering habitat.</p> <p>First, the original span of the OWF area was modified to fulfill the requirement of keeping the OWF at least 2 km from the edge of N2000 Słupska site.</p> <p>Second, the original extent of the OWF area was modified to keep a 5-km wide, open corridor between 2 subunits of the OWF (i.e. Baltica 2, Baltica 3). The corridor should enable seabirds to migrate freely to and from the north-east to reach the N2000 site Ławica Słupska.</p>	<p>The project will not lead to excess mortality of the species, as the levels of mortality generated by wind turbines will be negligible at the population level.</p> <p>As gulls in general are not strongly displaced by the OWF, this impact is also unlikely to generate strong impacts.</p> <p>As a consequence, the completion of the Project will not generate significant adverse effect on gull populations.</p> <p>In terms of the (critical) habitat of the species, the Project encroaches a measurable but minor fraction of the EAAA (0.6%). As a consequence, the</p>	<p>The Environmental Decision imposes the following monitoring procedures regarding seabirds and migratory birds within the constructed OWF:</p> <ul style="list-style-type: none"> <li>- <b>seabird</b> monitoring within the OWF will be conducted in 1<sup>st</sup> and 2<sup>nd</sup> year after completion of each part of the OWF, within the OWF as well as N2000 Ławica Słupska</li> <li>- After that, additional monitoring will be conducted in 4<sup>th</sup> and 5<sup>th</sup> year;</li> <li>- The monitoring must include flight altitude,</li> </ul>

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
		<p>Third, construction works that require piling (and lead to noise pollution) will not be performed between 1st November and 30th April, to avoid disturbing wintering/migrating birds. In the same period of time, vessels engaged in construction works are prevented from entering N2000 Ławica Słupska.</p> <p>Fourth, the construction of wind turbine towers is required to be tubular instead of lattice, to reduce the potential bird collisions.</p> <p>Fifth, The monitoring and WTG shut-down system will ensure adequate spatial coverage to cover the entire OWF with radar and all perimeters covered with cameras and the ability to operate (identify target species) in adverse weather conditions and at night</p> <ul style="list-style-type: none"> <li>- WTG shut-down system will include: radar, set of day and night cameras and identification system,</li> <li>- Specifications of scenario which will trigger shut-down procedure will be prepared in between Project, Lenders and LIESC,</li> </ul>	<p><b>project will not lead to significant, adverse effect in critical habitat of the species.</b></p>	<p>airspace use intensity, flight direction;</p> <ul style="list-style-type: none"> <li>- Seabird monitoring must be performed from September to May (at least 10 controls)</li> <li>- <b>Migratory</b> birds monitoring within the OWF will be conducted in 1<sup>st</sup> and 3<sup>rd</sup> year after completion of each part of the OWF, and in 5<sup>th</sup> year after completion of the whole project;</li> </ul> <p>Monitoring must be performed twice in each season (spring, autumn; at least 10 days/season, night and day, using radar, visual and acoustic observations).</p>

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
		<p>- The trigger for creation of such specifications will be material increase in collisions compared with modelled number of collisions for EIA and/or conditions imposed by the Environmental Authority,</p> <p>- Threshold of material increase of collisions will be for bird species indicated in CHA as Critical Habitat/Priority Biodiversity Features,</p> <p>- The details of the system including the criteria/thresholds for the system to shutdown/slowdown will be detailed and implemented via the Biodiversity Management Plan which shall not be in contradiction with the requirements imposed by the Environmental Authority. This detailed description will inter alia include parameters of bird (species, size of flock, conservation status) status) and parameters of shut down/slow down (to which speed)</p> <p>Each shutdown/slowdown event triggered by the BMP requirements (shutdown/slowdown parameters met) must be subject to prompt reporting to Lenders within the quarterly E&amp;S self-monitoring reports.</p>		

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
		<p>In the event shutdown/slowdown criteria in the BMP are triggered, and shutdown/slowdown is <b>not</b> activated potentially resulting in bird collisions, such failure will be considered an incident and shall be reported to Lenders, in accordance with the requirements outlined in the CTA, and to the Environmental Authority, along with a brief explanation for the failure to activate a shutdown/slowdown. Lenders at their sole discretion will have the right to request a more detailed investigation and/or preparation of a Corrective Action Plan (CAP) in the event of each material incident</p>		
<p>Mew Gull <i>Larus canus</i></p>	<p>In case of all gulls, the effect of displacement from existing migration routes is negligible – as gulls have lower energy requirements during flight than e.g. ducks, potential changes in flight trajectory/route caused by OWF construction do not translate to energetic costs of migration in a measurable way.</p> <p>In case of Mew gull, the modelling approach performed for Environmental Impact Assessment has shown the OWF-induced mortality at the level of less than 0-1 individuals per year, which is negligible</p>	<p>The Environmental Decision imposed the following mitigation procedures to minimize the impact on seabirds using the OWF as well as the neighbouring N2000 area Ławica Słupska as migration corridor/wintering habitat.</p> <p>First, the original span of the OWF area was modified to fulfill the requirement of keeping the OWF at least 2 km from the edge of N2000 Słupska site.</p> <p>Second, the original extent of the OWF area was modified to keep a 5-km wide,</p>	<p>The project will not lead to excess mortality of the species, as the levels of mortality generated by wind turbines will be negligible at the population level.</p> <p>As gulls in general are not strongly displaced by the OWF, this impact is also unlikely to generate strong impacts.</p> <p>As a consequence, the completion of the Project will not</p>	<p>The Environmental Decision imposes the following monitoring procedures regarding seabirds and migratory birds within the constructed OWF:</p> <ul style="list-style-type: none"> <li>- <b>seabird</b> monitoring within the OWF will be conducted in 1<sup>st</sup> and 2<sup>nd</sup> year after completion of each part of the OWF, within the OWF as</li> </ul>

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
	<p>on local, regional and global scale in case of that species.</p>	<p>open corridor between 2 subunits of the OWF (i.e. Baltica 2, Baltica 3). The corridor should enable seabirds to migrate freely to and from the north-east to reach the N2000 site Ławica Słupska.</p> <p>Third, construction works that require piling (and lead to noise pollution) will not be performed between 1st November and 30th April, to avoid disturbing wintering/migrating birds. In the same period of time, vessels engaged in construction works are prevented from entering N2000 Ławica Słupska.</p> <p>Fourth, the construction of wind turbine towers is required to be tubular instead of lattice, to reduce the potential bird collisions.</p> <p>Fifth, The monitoring and WTG shut-down system will ensure adequate spatial coverage to cover the entire OWF with radar and all perimeters covered with cameras and the ability to operate (identify target species) in adverse weather conditions and at night</p>	<p>generate significant adverse effect on gull populations.</p> <p>In terms of the (critical) habitat of the species, the Project encroaches a measurable but minor fraction of the EAAA (0.6%). As a consequence, the <b>project will not lead to significant, adverse effect in critical habitat of the species.</b></p>	<p>well as N2000 Ławica Słupska</p> <ul style="list-style-type: none"> <li>- After that, additional monitoring will be conducted in 4<sup>th</sup> and 5<sup>th</sup> year;</li> <li>- The monitoring must include flight altitude, airspace use intensity, flight direction;</li> <li>- Seabird monitoring must be performed from September to May (at least 10 controls)</li> <li>- <b>Migratory</b> birds monitoring within the OWF will be conducted in 1<sup>st</sup> and 3<sup>rd</sup> year after completion of each part of the OWF, and in 5<sup>th</sup> year after completion of the whole project;</li> </ul> <p>Monitoring must be performed twice in each season (spring, autumn; at least 10 days/season, night and day, using</p>

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
		<ul style="list-style-type: none"> <li>- WTG shut-down system will include: radar, set of day and night cameras and identification system,</li> <li>- Specifications of scenario which will trigger shut-down procedure will be prepared in between Project, Lenders and LIESC,</li> <li>- The trigger for creation of such specifications will be material increase in collisions compared with modelled number of collisions for EIA and/or conditions imposed by the Environmental Authority,</li> <li>- Threshold of material increase of collisions will be for bird species indicated in CHA as Critical Habitat/Priority Biodiversity Features,</li> <li>- The details of the system including the criteria/thresholds for the system to shutdown/slowdown will be detailed and implemented via the Biodiversity Management Plan which shall not be in contradiction with the requirements imposed by the Environmental Authority. This detailed description will inter alia include parameters of bird (species, size of flock, conservation</li> </ul>		<p>radar, visual and acoustic observations).</p>

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
		<p>status) status) and parameters of shut down/slow down (to which speed)</p> <p>Each shutdown/slowdown event triggered by the BMP requirements (shutdown/slowdown parameters met) must be subject to prompt reporting to Lenders within the quarterly E&amp;S self-monitoring reports.</p> <p>In the event shutdown/slowdown criteria in the BMP are triggered, and shutdown/slowdown is <b>not</b> activated potentially resulting in bird collisions, such failure will considered an incident and shall be reported to Lenders, in accordance with the requirements outlined in the CTA, and to the Environmental Authority, along with a brief explanation for the failure to activate a shutdown/slowdown. Lenders at their sole discretion will have the right to request a more detailed investigation and/or preparation of a Corrective Action Plan (CAP) in the event of each material incident</p>		
Golden plover <i>Pluvialis apricaria</i>	In case of Golden plover, the modelling approach performed for Environmental Impact Assessment has shown the OWF-induced mortality at the level under 2	The Environmental Decision imposed the following mitigation procedures to minimize the impact on birds migrating through the OWF:	The project will not lead to excess mortality of the species, as the levels of mortality generated by wind turbines will	The Environmental Decision imposes the following monitoring procedures regarding



Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
	<p>individuals per year, which is negligible on local, regional and global scale in case of that species.</p> <p>The potential impact of displacement is limited – Golden plover, similarly to other small charadriids, migrates over high altitudes and probably increases its flight altitude to cross over wind farms, and does not change the course of migration.</p>	<ul style="list-style-type: none"> <li>- The original extent of the OWF area was modified to keep a 5-km wide, open corridor between 2 subunits of the OWF (i.e. Baltica 2, Baltica 3). The corridor should enable seabirds to migrate freely at the SW-NW axis;</li> <li>- the construction of wind turbine towers is required to be tubular instead of lattice, to reduce the potential bird collisions.</li> </ul> <p>Fifth, The monitoring and WTG shut-down system will ensure adequate spatial coverage to cover the entire OWF with radar and all perimeters covered with cameras and the ability to operate (identify target species) in adverse weather conditions and at night</p> <ul style="list-style-type: none"> <li>- WTG shut-down system will include: radar, set of day and night cameras and identification system,</li> <li>- Specifications of scenario which will trigger shut-down procedure will be prepared in between Project, Lenders and LIESC,</li> <li>- The trigger for creation of such specifications will be material increase</li> </ul>	<p>be negligible at the population level.</p> <p>As plovers and other charadriids in general are not strongly displaced by the OWFs (high-altitude migration), this is also unlikely to generate strong impacts.</p> <p>As a consequence, <b>the completion of the Project will not generate significant adverse effect on Golden plover populations.</b></p> <p>In terms of the (critical) habitat of the species, the Project encroaches a measurable but minor fraction of the EAAA (0.6%). Importantly, the majority of the Project area is located offshore, ie. within areas that are used for migration only, and are not part of the species' core habitats. As a consequence, <b>the project will not lead to significant, adverse effect in critical habitat of the species.</b></p>	<p>migratory birds within the constructed OWF:</p> <ul style="list-style-type: none"> <li>- <b>Migratory</b> birds monitoring within the OWF will be conducted in 1<sup>st</sup> and 3<sup>rd</sup> year after completion of each part of the OWF, and in 5<sup>th</sup> year after completion of the whole project;</li> <li>- Monitoring must be performed twice in each season (spring, autumn; at least 10 days/season, night and day, using radar, visual and acoustic observations).</li> </ul>

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
		<p>in collisions compared with modelled number of collisions for EIA and/or conditions imposed by the Environmental Authority,</p> <ul style="list-style-type: none"> <li>- Threshold of material increase of collisions will be for bird species indicated in CHA as Critical Habitat/Priority Biodiversity Features,</li> <li>- The details of the system including the criteria/thresholds for the system to shutdown/slowdown will be detailed and implemented via the Biodiversity Management Plan which shall not be in contradiction with the requirements imposed by the Environmental Authority. This detailed description will inter alia include parameters of bird (species, size of flock, conservation status) status) and parameters of shut down/slow down (to which speed)</li> </ul> <p>Each shutdown/slowdown event triggered by the BMP requirements (shutdown/slowdown parameters met) must be subject to prompt reporting to Lenders within the quarterly E&amp;S self-monitoring reports.</p> <p>In the event shutdown/slowdown criteria in the BMP are triggered, and shutdown/slowdown is <b>not</b> activated</p>		

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
		<p>potentially resulting in bird collisions, such failure will be considered an incident and shall be reported to Lenders, in accordance with the requirements outlined in the CTA, and to the Environmental Authority, along with a brief explanation for the failure to activate a shutdown/slowdown. Lenders at their sole discretion will have the right to request a more detailed investigation and/or preparation of a Corrective Action Plan (CAP) in the event of each material incident,</p>		
<p>Common Tern <i>Sterna hirundo</i></p>	<p>In case of all terns, the impact of mortality of the operating OWFs are relatively low, as they spend most of their time flying less than 20 m over ocean surface, searching for food. However, during migration they may also fly on higher altitudes. For all species of tern potentially migrating through the OWF area, the modelling approach performed for Environmental Impact Assessment has shown the OWF-induced mortality at the level of less than 1-4 individuals per year, which is negligible on local, regional and global scale in case of</p> <p>Similarly to the case of gulls, the effect of displacement by the OWF from existing migration routes is negligible – as gulls</p>	<p>The Environmental Decision imposed the following mitigation procedures to minimize the impact on seabirds using the OWF as well as the neighbouring N2000 area Ławica Słupska as migration corridor/wintering habitat.</p> <p>First, the original span of the OWF area was modified to fulfill the requirement of keeping the OWF at least 2 km from the edge of N2000 Słupska site.</p> <p>Second, the original extent of the OWF area was modified to keep a 5-km wide, open corridor between 2 subunits of the OWF (i.e. Baltica 2, Baltica 3). The corridor should enable seabirds to</p>	<p>The project will not lead to excess mortality of the species, as the levels of mortality generated by wind turbines will be negligible at the population level.</p> <p>As terns in general are not strongly displaced by the OWF, this impact is also unlikely to generate strong impacts.</p> <p>As a consequence, the completion of the Project will not generate significant adverse effect on tern populations.</p>	<p>The Environmental Decision imposes the following monitoring procedures regarding seabirds and migratory birds within the constructed OWF:</p> <ul style="list-style-type: none"> <li>- <b>seabird</b> monitoring within the OWF will be conducted in 1<sup>st</sup> and 2<sup>nd</sup> year after completion of each part of the OWF, within the OWF as well as N2000 Ławica Słupska</li> </ul>

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
	<p>have lower energy requirements during flight than e.g. ducks, potential changes in flight trajectory/route caused by OWF construction do not translate to energetic costs of migration in a measurable way.</p>	<p>migrate freely to and from the north-east to reach the N2000 site Ławica Słupska.</p> <p>Third, construction works that require piling (and lead to noise pollution) will not be performed between 1st November and 30th April, to avoid disturbing wintering/migrating birds. In the same period of time, vessels engaged in construction works are prevented from entering N2000 Ławica Słupska.</p> <p>Fourth, the construction of wind turbine towers is required to be tubular instead of lattice, to reduce the potential bird collisions.</p> <p>Fifth, The monitoring and WTG shut-down system will ensure adequate spatial coverage to cover the entire OWF with radar and all perimeters covered with cameras and the ability to operate (identify target species) in adverse weather conditions and at night</p> <p>- WTG shut-down system will include: radar, set of day and night cameras and identification system,</p>	<p>In terms of the (critical) habitat of the species, the Project encroaches a measurable but minor fraction of the EAAA (0.6%). As a consequence, the <b>project will not lead to significant, adverse effect in critical habitat of the species.</b></p>	<ul style="list-style-type: none"> <li>- After that, additional monitoring will be conducted in 4<sup>th</sup> and 5<sup>th</sup> year;</li> <li>- The monitoring must include flight altitude, airspace use intensity, flight direction;</li> <li>- Seabird monitoring must be performed from September to May (at least 10 controls)</li> <li>- <b>Migratory</b> birds monitoring within the OWF will be conducted in 1<sup>st</sup> and 3<sup>rd</sup> year after completion of each part of the OWF, and in 5<sup>th</sup> year after completion of the whole project;</li> </ul> <p>Monitoring must be performed twice in each season (spring, autumn; at least 10 days/season, night and day, using radar, visual and acoustic observations).</p>

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
		<ul style="list-style-type: none"> <li>- Specifications of scenario which will trigger shut-down procedure will be prepared in between Project, Lenders and LIESC,</li> <li>- The trigger for creation of such specifications will be material increase in collisions compared with modelled number of collisions for EIA and/or conditions imposed by the Environmental Authority,</li> <li>- Threshold of material increase of collisions will be for bird species indicated in CHA as Critical Habitat/Priority Biodiversity Features,</li> <li>- The details of the system including the criteria/thresholds for the system to shutdown/slowdown will be detailed and implemented via the Biodiversity Management Plan which shall not be in contradiction with the requirements imposed by the Environmental Authority. This detailed description will inter alia include parameters of bird (species, size of flock, conservation status) status) and parameters of shut down/slow down (to which speed)</li> </ul> <p>Each shutdown/slowdown event triggered by the BMP requirements (shutdown/slowdown parameters met)</p>		

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
		<p>must be subject to prompt reporting to Lenders within the quarterly E&amp;S self-monitoring reports.</p> <p>In the event shutdown/slowdown criteria in the BMP are triggered, and shutdown/slowdown is <b>not</b> activated potentially resulting in bird collisions, such failure will be considered an incident and shall be reported to Lenders, in accordance with the requirements outlined in the CTA, and to the Environmental Authority, along with a brief explanation for the failure to activate a shutdown/slowdown. Lenders at their sole discretion will have the right to request a more detailed investigation and/or preparation of a Corrective Action Plan (CAP) in the event of each material incident</p>		
<p>Arctic tern <i>Sterna paradisaea</i></p>	<p>In case of all terns, the impact of mortality of the operating OWFs are relatively low, as they spend most of their time flying less than 20 m over ocean surface, searching for food. However, during migration they may also fly on higher altitudes. For all species of tern potentially migrating through the OWF area, the modelling approach performed for Environmental Impact Assessment has shown the OWF-induced mortality at the</p>	<p>The Environmental Decision imposed the following mitigation procedures to minimize the impact on seabirds using the OWF as well as the neighbouring N2000 area Ławica Słupska as migration corridor/wintering habitat.</p> <p>First, the original span of the OWF area was modified to fulfill the requirement of keeping the OWF at least 2 km from the edge of N2000 Słupska site.</p>	<p>The project will not lead to excess mortality of the species, as the levels of mortality generated by wind turbines will be negligible at the population level</p> <p>As terns in general are not strongly displaced by the OWF, this impact is also unlikely to generate strong impacts.</p>	<p>The Environmental Decision imposes the following monitoring procedures regarding seabirds and migratory birds within the constructed OWF:</p> <ul style="list-style-type: none"> <li>- <b>seabird</b> monitoring within the OWF will be conducted in 1<sup>st</sup></li> </ul>

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
	<p>level of less than 1-4 individuals per year, which is negligible on local, regional and global scale in case of</p> <p>Similarly to the case of gulls, the effect of displacement by the OWF from existing migration routes is negligible – as gulls have lower energy requirements during flight than e.g. ducks, potential changes in flight trajectory/route caused by OWF construction do not translate to energetic costs of migration in a measurable way.</p>	<p>Second, the original extent of the OWF area was modified to keep a 5-km wide, open corridor between 2 subunits of the OWF (i.e. Baltica 2, Baltica 3). The corridor should enable seabirds to migrate freely to and from the north-east to reach the N2000 site Ławica Słupska.</p> <p>Third, construction works that require piling (and lead to noise pollution) will not be performed between 1st November and 30th April, to avoid disturbing wintering/migrating birds. In the same period of time, vessels engaged in construction works are prevented from entering N2000 Ławica Słupska.</p> <p>Fourth, the construction of wind turbine towers is required to be tubular instead of lattice, to reduce the potential bird collisions.</p> <p>Fifth, The monitoring and WTG shut-down system will ensure adequate spatial coverage to cover the entire OWF with radar and all perimeters covered with cameras and the ability to</p>	<p>As a consequence, the completion of the Project will not generate significant adverse effect on tern populations.</p> <p>In terms of the (critical) habitat of the species, the Project encroaches a measurable but minor fraction of the EAAA (0.6%). As a consequence, the <b>project will not lead to significant, adverse effect in critical habitat of the species.</b></p>	<p>and 2<sup>nd</sup> year after completion of each part of the OWF, within the OWF as well as N2000 Ławica Słupska</p> <ul style="list-style-type: none"> <li>- After that, additional monitoring will be conducted in 4<sup>th</sup> and 5<sup>th</sup> year;</li> <li>- The monitoring must include flight altitude, airspace use intensity, flight direction;</li> <li>- Seabird monitoring must be performed from September to May (at least 10 controls)</li> <li>- <b>Migratory</b> birds monitoring within the OWF will be conducted in 1<sup>st</sup> and 3<sup>rd</sup> year after completion of each part of the OWF, and in 5<sup>th</sup> year after completion of the whole project;</li> </ul> <p>Monitoring must be performed twice in each</p>

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
		<p>operate (identify target species) in adverse weather conditions and at night</p> <ul style="list-style-type: none"> <li>- WTG shut-down system will include: radar, set of day and night cameras and identification system,</li> <li>- Specifications of scenario which will trigger shut-down procedure will be prepared in between Project, Lenders and LIESC,</li> <li>- The trigger for creation of such specifications will be material increase in collisions compared with modelled number of collisions for EIA and/or conditions imposed by the Environmental Authority,</li> <li>- Threshold of material increase of collisions will be for bird species indicated in CHA as Critical Habitat/Priority Biodiversity Features,</li> <li>- The details of the system including the criteria/thresholds for the system to shutdown/slowdown will be detailed and implemented via the Biodiversity Management Plan which shall not be in contradiction with the requirements imposed by the Environmental Authority. This detailed description will inter alia include parameters of bird</li> </ul>		<p>season (spring, autumn; at least 10 days/season, night and day, using radar, visual and acoustic observations).</p>



Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
		<p>(species, size of flock, conservation status) status) and parameters of shut down/slow down (to which speed)</p> <p>Each shutdown/slowdown event triggered by the BMP requirements (shutdown/slowdown parameters met) must be subject to prompt reporting to Lenders within the quarterly E&amp;S self-monitoring reports.</p> <p>In the event shutdown/slowdown criteria in the BMP are triggered, and shutdown/slowdown is <b>not</b> activated potentially resulting in bird collisions, such failure will be considered an incident and shall be reported to Lenders, in accordance with the requirements outlined in the CTA, and to the Environmental Authority, along with a brief explanation for the failure to activate a shutdown/slowdown. Lenders at their sole discretion will have the right to request a more detailed investigation and/or preparation of a Corrective Action Plan (CAP) in the event of each material incident</p>		
<p>Little Tern <i>Sternula albifrons</i></p>	<p>In case of all terns, the impact of mortality of the operating OWFs are relatively low, as they spend most of their time flying less than 20 m over ocean surface, searching for food. However, during</p>	<p>The Environmental Decision imposed the following mitigation procedures to minimize the impact on seabirds using the OWF as well as the neighbouring</p>	<p>The project will not lead to excess mortality of the species, as the levels of mortality generated by wind turbines will</p>	<p>The Environmental Decision imposes the following monitoring procedures regarding seabirds and migratory</p>

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
	<p>migration they may also fly on higher altitudes. For all species of tern potentially migrating through the OWF area, the modelling approach performed for Environmental Impact Assessment has shown the OWF-induced mortality at the level of less than 1-4 individuals per year, which is negligible on local, regional and global scale in case of</p> <p>Similarly to the case of gulls, the effect of displacement by the OWF from existing migration routes is negligible – as gulls have lower energy requirements during flight than e.g. ducks, potential changes in flight trajectory/route caused by OWF construction do not translate to energetic costs of migration in a measurable way.</p>	<p>N2000 area Ławica Słupska as migration corridor/wintering habitat.</p> <p>First, the original span of the OWF area was modified to fulfill the requirement of keeping the OWF at least 2 km from the edge of N2000 Słupska site.</p> <p>Second, the original extent of the OWF area was modified to keep a 5-km wide, open corridor between 2 subunits of the OWF (i.e. Baltica 2, Baltica 3). The corridor should enable seabirds to migrate freely to and from the north-east to reach the N2000 site Ławica Słupska.</p> <p>Third, construction works that require piling (and lead to noise pollution) will not be performed between 1st November and 30th April, to avoid disturbing wintering/migrating birds. In the same period of time, vessels engaged in construction works are prevented from entering N2000 Ławica Słupska.</p> <p>Fourth, the construction of wind turbine towers is required to be tubular instead of lattice, to reduce the potential bird collisions.</p>	<p>be negligible at the population level.</p> <p>As terns in general are not strongly displaced by the OWF, this impact is also unlikely to generate strong impacts.</p> <p>As a consequence, the completion of the Project will not generate significant adverse effect on tern populations.</p> <p>In terms of the (critical) habitat of the species, the Project encroaches a measurable but minor fraction of the EAAA (0.6%). As a consequence, the <b>project will not lead to significant, adverse effect in critical habitat of the species.</b></p>	<p>birds within the constructed OWF:</p> <ul style="list-style-type: none"> <li>- <b>seabird</b> monitoring within the OWF will be conducted in 1<sup>st</sup> and 2<sup>nd</sup> year after completion of each part of the OWF, within the OWF as well as N2000 Ławica Słupska</li> <li>- After that, additional monitoring will be conducted in 4<sup>th</sup> and 5<sup>th</sup> year;</li> <li>- The monitoring must include flight altitude, airspace use intensity, flight direction;</li> <li>- Seabird monitoring must be performed from September to May (at least 10 controls)</li> <li>- <b>Migratory</b> birds monitoring within the OWF will be conducted in 1<sup>st</sup> and 3<sup>rd</sup> year after</li> </ul>

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
		<p>Fifth, The monitoring and WTG shut-down system will ensure adequate spatial coverage to cover the entire OWF with radar and all perimeters covered with cameras and the ability to operate (identify target species) in adverse weather conditions and at night</p> <ul style="list-style-type: none"> <li>- WTG shut-down system will include: radar, set of day and night cameras and identification system,</li> <li>- Specifications of scenario which will trigger shut-down procedure will be prepared in between Project, Lenders and LIESC,</li> <li>- The trigger for creation of such specifications will be material increase in collisions compared with modelled number of collisions for EIA and/or conditions imposed by the Environmental Authority,</li> <li>- Threshold of material increase of collisions will be for bird species indicated in CHA as Critical Habitat/Priority Biodiversity Features,</li> <li>- The details of the system including the criteria/thresholds for the system to shutdown/slowdown will be detailed and</li> </ul>		<p>completion of each part of the OWF, and in 5<sup>th</sup> year after completion of the whole project;</p> <p>Monitoring must be performed twice in each season (spring, autumn; at least 10 days/season, night and day, using radar, visual and acoustic observations).</p>

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
		<p>implemented via the Biodiversity Management Plan which shall not be in contradiction with the requirements imposed by the Environmental Authority. This detailed description will inter alia include parameters of bird (species, size of flock, conservation status) status) and parameters of shut down/slow down (to which speed)</p> <p>Each shutdown/slowdown event triggered by the BMP requirements (shutdown/slowdown parameters met) must be subject to prompt reporting to Lenders within the quarterly E&amp;S self-monitoring reports.</p> <p>In the event shutdown/slowdown criteria in the BMP are triggered, and shutdown/slowdown is <b>not</b> activated potentially resulting in bird collisions, such failure will considered an incident and shall be reported to Lenders, in accordance with the requirements outlined in the CTA, and to the Environmental Authority, along with a brief explanation for the failure to activate a shutdown/slowdown.</p> <p>Lenders at their sole discretion will have the right to request a more detailed investigation and/or preparation of a</p>		

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
<p style="text-align: center;">Sandwich Tern <i>Thalasseus sandvicensis</i></p>	<p>In case of all terns, the impact of mortality of the operating OWFs are relatively low, as they spend most of their time flying less than 20 m over ocean surface, searching for food. However, during migration they may also fly on higher altitudes. For all species of tern potentially migrating through the OWF area, the modelling approach performed for Environmental Impact Assessment has shown the OWF-induced mortality at the level of less than 1-4 individuals per year, which is negligible on local, regional and global scale in case of</p> <p>Similarly to the case of gulls, the effect of displacement by the OWF from existing migration routes is negligible – as gulls have lower energy requirements during flight than e.g. ducks, potential changes in flight trajectory/route caused by OWF construction do not translate to energetic costs of migration in a measurable way.</p>	<p>Corrective Action Plan (CAP) in the event of each material incident</p> <p>The Environmental Decision imposed the following mitigation procedures to minimize the impact on seabirds using the OWF as well as the neighbouring N2000 area Ławica Słupska as migration corridor/wintering habitat.</p> <p>First, the original span of the OWF area was modified to fulfill the requirement of keeping the OWF at least 2 km from the edge of N2000 Słupska site.</p> <p>Second, the original extent of the OWF area was modified to keep a 5-km wide, open corridor between 2 subunits of the OWF (i.e. Baltica 2, Baltica 3). The corridor should enable seabirds to migrate freely to and from the north-east to reach the N2000 site Ławica Słupska.</p> <p>Third, construction works that require piling (and lead to noise pollution) will not be performed between 1st November and 30th April, to avoid disturbing wintering/migrating birds. In the same period of time, vessels engaged in construction works are</p>	<p>The project will not lead to excess mortality of the species, as the levels of mortality generated by wind turbines will be negligible at the population level.</p> <p>As terns in general are not strongly displaced by the OWF, this impact is also unlikely to generate strong impacts.</p> <p>As a consequence, the completion of the Project will not generate significant adverse effect on tern populations.</p> <p>In terms of the (critical) habitat of the species, the Project encroaches a measurable but minor fraction of the EAAA (0.6%). As a consequence, the <b>project will not lead to significant, adverse effect in critical habitat of the species.</b></p>	<p>The Environmental Decision imposes the following monitoring procedures regarding seabirds and migratory birds within the constructed OWF:</p> <ul style="list-style-type: none"> <li>- <b>seabird</b> monitoring within the OWF will be conducted in 1<sup>st</sup> and 2<sup>nd</sup> year after completion of each part of the OWF, within the OWF as well as N2000 Ławica Słupska</li> <li>- After that, additional monitoring will be conducted in 4<sup>th</sup> and 5<sup>th</sup> year;</li> <li>- The monitoring must include flight altitude, airspace use intensity, flight direction;</li> <li>- Seabird monitoring must be performed from September to</li> </ul>

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
		<p>prevented from entering N2000 Ławica Słupska.</p> <p>Fourth, the construction of wind turbine towers is required to be tubular instead of lattice, to reduce the potential bird collisions.</p> <p>Fifth, The monitoring and WTG shut-down system will ensure adequate spatial coverage to cover the entire OWF with radar and all perimeters covered with cameras and the ability to operate (identify target species) in adverse weather conditions and at night</p> <ul style="list-style-type: none"> <li>- WTG shut-down system will include: radar, set of day and night cameras and identification system,</li> <li>- Specifications of scenario which will trigger shut-down procedure will be prepared in between Project, Lenders and LIESC,</li> <li>- The trigger for creation of such specifications will be material increase in collisions compared with modelled number of collisions for EIA and/or conditions imposed by the Environmental Authority,</li> </ul>		<p>May (at least 10 controls)</p> <ul style="list-style-type: none"> <li>- <b>Migratory</b> birds monitoring within the OWF will be conducted in 1<sup>st</sup> and 3<sup>rd</sup> year after completion of each part of the OWF, and in 5<sup>th</sup> year after completion of the whole project;</li> </ul> <p>Monitoring must be performed twice in each season (spring, autumn; at least 10 days/season, night and day, using radar, visual and acoustic observations).</p>

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
		<p>- Threshold of material increase of collisions will be for bird species indicated in CHA as Critical Habitat/Priority Biodiversity Features,</p> <p>- The details of the system including the criteria/thresholds for the system to shutdown/slowdown will be detailed and implemented via the Biodiversity Management Plan which shall not be in contradiction with the requirements imposed by the Environmental Authority. This detailed description will inter alia include parameters of bird (species, size of flock, conservation status) status) and parameters of shut down/slow down (to which speed)</p> <p>Each shutdown/slowdown event triggered by the BMP requirements (shutdown/slowdown parameters met) must be subject to prompt reporting to Lenders within the quarterly E&amp;S self-monitoring reports.</p> <p>In the event shutdown/slowdown criteria in the BMP are triggered, and shutdown/slowdown is <b>not</b> activated potentially resulting in bird collisions, such failure will considered an incident and shall be reported to Lenders, in accordance with the requirements outlined in the CTA, and to the</p>		

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
		<p>Environmental Authority, along with a brief explanation for the failure to activate a shutdown/slowdown. Lenders at their sole discretion will have the right to request a more detailed investigation and/or preparation of a Corrective Action Plan (CAP) in the event of each material incident</p>		
<p>Common Kingfisher <i>Alcedo atthis</i></p>	<p>The species is present in riparian landscapes within the Aol of Onshore CI; it has not been observed during bird migration monitoring within the planned OWF, and is therefore is not considered as prone to mortality driven by wind turbines. It may be subject to mortality linked to collisions with overhead cables and other elements of high-voltage infrastructure, although such mortality is rather associated with larger species, like birds of prey; therefore, its impact is considered negligible.</p> <p>The species will temporarily be affected by construction works, but the extent of disturbance within its habitats (small rivers and creeks) will be limited.</p>	<p>In case of onshore CI, the Environmental Decision imposes the requirement to install markers, such as signal spirals, on lightning conductors within high-voltage infrastructure to limit the scale of bird collisions (spaced not less than 25 m per conductor).</p>	<p>The completion of the Project will not generate measurable, significant, adverse effect on Kingfisher.</p> <p>Both population size within the Aol (1 breeding pair) as well as relative size of Aol in relation to EAAA are negligible.</p>	<p>The monitoring of potential bird mortality cause by overhead cables and other elements of high-voltage infrastructure will be performed in 2<sup>nd</sup> and 3<sup>rd</sup> after completion of investment (onshore CI).</p>
<p>Common Crane <i>Grus grus</i></p>	<p>In case of Common crane, the modelling approach performed for Environmental Impact Assessment has shown the OWF-induced mortality at the level up to 10-20</p>	<p>The Environmental Decision imposed the following mitigation procedures to</p>	<p>The project will not lead to excess mortality of the species, as the levels of mortality</p>	<p>The Environmental Decision imposes the following monitoring</p>



Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
	<p>individuals per year, which is negligible on local, regional and global scale in case of that species.</p> <p>In case of displacement during migration flights by the constructed OWF, it will impose some energetic costs for the Cranes (which may change their route to avoid OWF); however, that effect is unlikely to be significant – modelling approaches performed for the Environmental Impact Assessment show that for seaducks migrating between the Baltic Sea and their breeding grounds in the Arctic, the additional energetic costs of avoiding the OWF area are at level of below 2% of total energetic costs of migration (route increased by 12,3 km). Therefore, that impact was assessed as negligible for the Common crane.</p>	<p>minimize the impact on birds migrating through the OWF:</p> <ul style="list-style-type: none"> <li>- The original extent of the OWF area was modified to keep a 5-km wide, open corridor between 2 subunits of the OWF (i.e. Baltica 2, Baltica 3). The corridor should enable seabirds to migrate freely at the SW-NW axis;</li> <li>- the construction of wind turbine towers is required to be tubular instead of lattice, to reduce the potential bird collisions.</li> </ul> <p>Fifth, The monitoring and WTG shut-down system will ensure adequate spatial coverage to cover the entire OWF with radar and all perimeters covered with cameras and the ability to operate (identify target species) in adverse weather conditions and at night</p> <ul style="list-style-type: none"> <li>- WTG shut-down system will include: radar, set of day and night cameras and identification system,</li> <li>- Specifications of scenario which will trigger shut-down procedure will be prepared in between Project, Lenders and LIESC,</li> </ul>	<p>generated by wind turbines will be negligible at the population level.</p> <p>As Common crane migration routes are not strongly displaced by the OWF, this impact is also unlikely to generate strong impacts.</p> <p>As a consequence, the completion of the Project will not generate significant adverse effect on Common crane populations.</p> <p>In terms of the (critical) habitat of the species, the Project encroaches a measurable but minor fraction of the EAAA (delineated as Polish Baltic Sea (internal marine waters, territorial sea and exclusive economic zone) + 10 km inland), ie. 0.5%. Importantly, the majority of the Project area is located offshore, ie. within areas that are used for migration only, and are not part of the species' core habitats. As a consequence, the <b>project will</b></p>	<p>procedures regarding seabirds and migratory birds within the constructed OWF:</p> <ul style="list-style-type: none"> <li>- <b>Migratory</b> birds monitoring within the OWF will be conducted in 1<sup>st</sup> and 3<sup>rd</sup> year after completion of each part of the OWF, and in 5<sup>th</sup> year after completion of the whole project;</li> </ul> <p>Monitoring must be performed twice in each season (spring, autumn; at least 10 days/season, night and day, using radar, visual and acoustic observations).</p>

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
		<ul style="list-style-type: none"> <li>- The trigger for creation of such specifications will be material increase in collisions compared with modelled number of collisions for EIA and/or conditions imposed by the Environmental Authority,</li> <li>- Threshold of material increase of collisions will be for bird species indicated in CHA as Critical Habitat/Priority Biodiversity Features,</li> <li>- The details of the system including the criteria/thresholds for the system to shutdown/slowdown will be detailed and implemented via the Biodiversity Management Plan which shall not be in contradiction with the requirements imposed by the Environmental Authority. This detailed description will inter alia include parameters of bird (species, size of flock, conservation status) status) and parameters of shut down/slow down (to which speed)</li> </ul> <p>Each shutdown/slowdown event triggered by the BMP requirements (shutdown/slowdown parameters met) must be subject to prompt reporting to Lenders within the quarterly E&amp;S self-monitoring reports.</p>	<p><b>not lead to significant, adverse effect in critical habitat of the species.</b></p>	

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
		<p>In the event shutdown/slowdown criteria in the BMP are triggered, and shutdown/slowdown is <b>not</b> activated potentially resulting in bird collisions, such failure will be considered an incident and shall be reported to Lenders, in accordance with the requirements outlined in the CTA, and to the Environmental Authority, along with a brief explanation for the failure to activate a shutdown/slowdown. Lenders at their sole discretion will have the right to request a more detailed investigation and/or preparation of a Corrective Action Plan (CAP) in the event of each material incident. In case of onshore CI, the Environmental Decision imposes the requirement to install markers, such as signal spirals, on lightning conductors within high-voltage infrastructure (power substation) to limit the scale of bird collisions (spaced not less than 25 m per conductor).</p>		
<p>Black woodpecker <i>Dryocopus martius</i></p>	<p>The species is present in forested landscapes within the Aol of Onshore CI. It is not migratory and has not been recorded during bird migration monitoring within the planned OWF.</p> <p>It may be subject to mortality linked to collisions with overhead cables and other</p>	<p>In case of onshore CI, the Environmental Decision imposes the requirement to install markers, such as signal spirals, on lightning conductors within high-voltage infrastructure to limit the scale of bird collisions (spaced not less than 25 m per conductor).</p>	<p>The completion of the Project will not generate measurable, significant, adverse effect on Black Woodpecker.</p> <p>Both population size within the Aol (3 observations of the species during the breeding</p>	<p>The monitoring of potential bird mortality cause by overhead cables and other elements of high-voltage infrastructure will be performed in 2<sup>nd</sup> and 3<sup>rd</sup> after completion of investment (onshore CI).</p>

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
	<p>elements of high-voltage infrastructure, although such mortality is rather associated with larger species, like birds of prey; therefore, its impact is considered negligible.</p> <p>The species will temporarily be affected by construction works, but this is unlikely to cause long-lasting effects on the local population. The local deforestation along the underground cable is also unlikely to affect the habitat use of Black Woodpecker on a scale larger than local.</p>	<p>Additionally, the species benefits from the requirement to perform tree felling within the Onshore CI outside the breeding season (from mid-October to end of May). Any tree felling outside that period must be performed under supervision of a qualified ornithologist.</p> <p>Conduct pre-construction check to confirm presence or absence in area where vegetation will be cleared. This will be done in areas where vegetation clearance was not done yet.</p>	<p>season) as well as relative area of Aol (onshore CI) in relation to population and range within EAAA are negligible.</p>	
<p>Red Kite <i>Milvus milvus</i></p>	<p>The species is present in forested landscapes within the Aol of Onshore CI; it has been occasionally recorded during bird migration monitoring within the planned OWF; as it was present only occasionally, the potential effect of mortality driven by wind turbines was not modelled, although it is likely to be negligible on the population scale.</p> <p>The species is also present as a breeding species in the immediate vicinity of Onshore CI. It may be subject to mortality linked to collisions with overhead cables and other elements of high-voltage infrastructure.</p>	<p>In case of onshore CI, the Environmental Decision imposes the requirement to install markers, such as signal spirals, on lightning conductors within high-voltage infrastructure to limit the scale of bird collisions (spaced not less than 25 m per conductor).</p> <p>Conduct pre-construction check to confirm presence or absence in area where vegetation will be cleared. This will be done in areas where vegetation clearance was not done yet.</p>	<p>The completion of the Project including the proposed mitigation measures (reduction of mortality driven by high-voltage infrastructure) will not generate measurable adverse effect on Red Kite local populations.</p> <p>Both population size within the Aol of onshore CI (4 observations of the species during the breeding season, but no nests found) as well as relative area of Aol (onshore CI) in relation to population and</p>	<p>The Environmental Decision imposes the following monitoring procedures regarding migratory birds within the constructed OWF:</p> <ul style="list-style-type: none"> <li>- <b>Migratory</b> birds monitoring within the OWF will be conducted in 1<sup>st</sup> and 3<sup>rd</sup> year after completion of each part of the OWF, and in 5<sup>th</sup> year after</li> </ul>

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
			range within EAAA are negligible.	<p>completion of the whole project;</p> <ul style="list-style-type: none"> <li>- Monitoring must be performed twice in each season (spring, autumn; at least 10 days/season, night and day, using radar, visual and acoustic observations).</li> </ul> <p>In case of Onshore CI, The monitoring of potential bird mortality cause by overhead cables and other elements of high-voltage infrastructure will be performed in 2<sup>nd</sup> and 3<sup>rd</sup> after completion of investment (onshore CI).</p>
Woodlark <i>Lullula arborea</i>	The species is present in forested landscapes within the AoI of Onshore CI; it has been occasionally recorded during bird migration monitoring within the planned OWF, but as a small passerine it migrates at very high altitudes over the sea and is not prone to mortality caused by offshore wind turbines.	In case of onshore CI, the Environmental Decision imposes the requirement to install markers, such as signal spirals, on lightning conductors within high-voltage infrastructure to limit the scale of bird collisions (spaced not less than 25 m per conductor).	The population in the EAAA (+10 km inland along Polish coast) is unknown, while in the Area of Impact of onshore CI th species is observed regularly (at least 8 singing males/season), which is	The Environmental Decision imposes the following monitoring procedures regarding migratory birds within the constructed OWF:

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
	<p>It may be subject to mortality linked to collisions with overhead cables and other elements of high-voltage infrastructure, although such mortality is rather associated with larger species, like birds of prey; therefore, its impact is considered negligible.</p> <p>The species will temporarily be affected by construction works, but in the long term will probably benefit from creating a treeless line in the landscape (Woodlark is linked with forest habitats, but needs open spaces for foraging).</p>	<p>Conduct pre-construction check to confirm presence or absence in area where vegetation will be cleared. This will be done in areas where vegetation clearance was not done yet.</p>	<p>negligible in the context of EAAA/national/regional/global population).</p> <p>The species within the AoI will be temporarily impacted by construction works, but may benefit in the long term from creation of open habitat; nevertheless, the impacted habitat is negligible in the context of EAAA.</p> <p><b>The completion of the Project will not generate significant adverse effect on Woodlark both in terms of population and area impacted.</b></p>	<ul style="list-style-type: none"> <li>- <b>Migratory</b> birds monitoring within the OWF will be conducted in 1<sup>st</sup> and 3<sup>rd</sup> year after completion of each part of the OWF, and in 5<sup>th</sup> year after completion of the whole project;</li> <li>- Monitoring must be performed twice in each season (spring, autumn; at least 10 days/season, night and day, using radar, visual and acoustic observations).</li> <li>- In case of Onshore CI, the monitoring of potential bird mortality cause by overhead cables and other elements of high-voltage infrastructure will be performed in 2<sup>nd</sup> and 3<sup>rd</sup> after completion of investment (onshore CI).</li> </ul>

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
<p>Great crested newt <i>Triturus cristatus</i></p>	<p>The species is locally present within the Aol (onshore CI), with 1 breeding pond within the indirect impact zone.</p> <p>Although the breeding habitats will not be directly impacted, species may be negatively impacted during its life on land through mortality caused by construction works (individuals being trapped in constructed trenches, individuals killed by collisions with vehicles and machinery). The impacts will be mitigated.</p>	<p>The Environmental Decision imposes the following mitigation measures designed for Great crested newt (and other amphibians as well) during construction of Onshore CI:</p> <ul style="list-style-type: none"> <li>- Before onset of construction works, sites of potential conflict are to be inspected by a qualified herpetologist; if needed, such areas will be fenced to prevent animals from entering the construction area;</li> <li>- During construction works, the construction site must be controlled daily for amphibian presence; any animals found must be captured and transferred to safe sites beyond the construction area (capturing amphibians must be performed in disposable gloves; any field instruments must be regularly disinfected to prevent the spread of pathogens)</li> </ul> <p>Conduct pre-construction check to confirm presence or absence in area where vegetation will be cleared. This will be done in areas where vegetation clearance was not done yet.</p>	<p>The completion of the Project, provided that the mitigation measures will be performed will not generate significant adverse effect on Great crested newt population.</p> <p>In terms of both population and range, the impact on the species within the Aol is negligible in the regional/national scale (1 breeding pond, which translates to population size in tens, perhaps hundreds of individuals, while the species is widespread with thousands known localities within its national range).</p>	<p>The breeding pond of the species within the Aol will be monitored yearly for 3 years after the construction, using the HSI (Habitat Suitability Index) methodology for Great crested newt developed for National Animal Species Monitoring Scheme (Pabijan, 2012). The HSI will be calculated for the breeding pond in each year to verify whether the local habitat quality deteriorated as an effect of construction works, using parameters like water quality, ecological connectivity, shade, presence of fish etc.</p>
<p>European Eel <i>Anguilla anguilla</i></p>	<p>In case of the European Eel, the foraging grounds of the species are located</p>	<p>The Environmental Decision imposes the following mitigation measures:</p>	<p>The impact of the Project will be temporary (limited to</p>	<p>Monitoring will be conducted in 1<sup>st</sup> and 3<sup>rd</sup></p>

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
	<p>upstream in Słupia river, away from the Area of Impact of the project (OMB Port Ustka), tens of kilometers into the PLH220052 Dolina Słupi. However, young individuals migrate upstream through the Słupia river within Port Ustka, passing through the project Aol.</p> <p>The construction works within OMB Port Ustka may potentially impact the upstream migration of that species, e.g. through increased suspension of sediment, decreased oxygen levels, artificial light at night (ALAN) as well as increased noise levels. The aforementioned impact will however be mitigated.</p> <p>However, it is important to note that catadromous fish entering freshwater are naturally under considerable physiological stress, move fast towards upstream grounds and are unlikely to stay long within the Area of Impact. After completion of the construction works, the project is unlikely to affect the species.</p>	<ul style="list-style-type: none"> <li>- During dredging works, oxygen levels in water below the construction site will be monitored; if oxygen concentration falls below level that are safe for fish, works have to be halted until the oxygen returns to safe level;</li> <li>- Artificial light directed towards water surface will to be reduced in parts of the year (autumn/spring); this is designed for anadromous species (Atlantic salmon, European river lamprey), but nevertheless will mitigate the negative effects on ALAN on European eel.</li> </ul>	<p>construction works within OMB Port Ustka), and will not lead to additional mortality as well as habitat destruction for the species.</p> <p>The potential impacts during construction phase will be mitigated.</p> <p>Therefore, the completion of the Project will not generate significant adverse effect on European Eel populations, especially that the size of the EAAA is negligible in the context of the species extremely large global range.</p>	<p>year after construction, together with the monitoring of other migratory fish and lampreys</p>
<p>Atlantic Salmon (Baltic Sea subpopulation) <i>Salmo salar</i></p>	<p>In case of the Atlantic Salmon, the breeding grounds of the species are located upstream in Słupia river, away from the Area of Impact of the project (OMB Port Ustka), tens of kilometers into</p>	<p>The Environmental Decision imposes the following mitigation measures:</p> <ul style="list-style-type: none"> <li>- Construction works linked to increased noise levels are banned</li> </ul>	<p>The impact of the Project will be temporary (limited to construction works within OMB Port Ustka), and will not lead to additional mortality as well as</p>	<p>The breeding population in the PLH220052 Dolina Słupi is included in the National Animal Species Monitoring Scheme, with</p>



Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
	<p>the PLH220052 Dolina Słupi. However, adult individuals migrate upstream through the Słupia river within Port Ustka, passing through the project AoI.</p> <p>The construction works within OMB Port Ustka may potentially impact the autumn upstream migration of that species, e.g. through decreased oxygen levels driven by increased suspension of sediment,, artificial light at night (ALAN) as well as increased noise levels. The aforementioned impact will however be mitigated.</p> <p>However, it is important to note that anadromous fish entering freshwater are naturally under considerable physiological stress, move fast towards breeding grounds and are unlikely to stay long within the Area of Impact. After completion of the construction works, the project is unlikely to affect the species.</p>	<p>in autumn (September-October) due to upstream migration of adult individuals;</p> <ul style="list-style-type: none"> <li>- During dredging works, oxygen levels in water below the construction site will be monitored; if oxygen concentration falls below level that are safe for fish, works have to be halted until the oxygen returns to safe level;</li> </ul> <p>Artificial light directed towards water surface needs to be reduced in autumn (September-October) as well as spring (March-April), in order to reduce disturbance to migrating fish (Atlantic salmon) and lampreys (European river lamprey).</p>	<p>habitat destruction for the species. The potential impacts during construction phase will be mitigated. Therefore, <b>the completion of the Project will not generate significant adverse effect on Atlantic Salmon populations.</b></p> <p>In terms of the amount of critical habitat modified by the Project, the spatial extent of modifications (reconstruction of ca. 500 m of already existing quay walls) are negligible in the context of the entire area of the EAAA (PLH220052 Dolina Słupi). Therefore, <b>the project will not have significant impact on critical habitat of Atlantic Salmon.</b></p>	<p>results of round of monitoring published and communicated to the European Commission (e.g. GIOŚ 2017a). As a consequence, the monitoring results concerning the species are publicly available, and will be used for verification of any potential residual impacts of the Project on the local breeding population of Atlantic Salmon.</p>
<p>European river lamprey <i>Lampetra fluviatilis</i></p>	<p>In case of the European river lamprey, the breeding grounds of the species are located upstream in Słupia river, away from the Area of Impact of the project (OMB Port Ustka), several kilometers into the PLH220052 Dolina Słupi. However, adult individuals migrate upstream</p>	<p>The Environmental Decision imposes the following mitigation measures:</p> <ul style="list-style-type: none"> <li>- Construction works linked to increased noise levels are banned in autumn (September-October) due to upstream migration of adult individuals;</li> </ul>	<p>The impact of the Project will be temporary (limited to construction works within OMB Port Ustka), and will not lead to additional mortality as well as habitat destruction for the species. The potential impacts during construction phase will be</p>	<p>This species is currently monitored at national level in Poland (GIOS Monitoring of marine species and habitats). However, currently monitored rivers lay outside the PLH220052</p>

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
	<p>through the Słupia river within Port Ustka, passing through the project Aol.</p> <p>The construction works within OMB Port Ustka may potentially impact the autumn upstream migration of that species, e.g. through increased suspension of sediment, decreased oxygen levels, artificial light at night (ALAN) as well as increased noise levels. The aforementioned impact will however be mitigated.</p> <p>However, it is important to note that anadromous fish entering freshwater are naturally under considerable physiological stress, move fast towards breeding grounds and are unlikely to stay long within the Area of Impact. After completion of the construction works, the project is unlikely to affect the species.</p>	<p>- During dredging works, oxygen levels in water below the construction site will be monitored; if oxygen concentration falls below level that are safe for fish, works have to be halted until the oxygen returns to safe level;</p> <p>Artificial light directed towards water surface needs to be reduced in autumn (September-October) as well as spring (March-April), in order to reduce disturbance to migrating fish (Atlantic salmon) and lampreys (European river lamprey).</p>	<p>mitigated. Therefore, <b>the completion of the Project will not generate significant adverse effect on European river lamprey populations.</b></p> <p>In terms of the amount of critical habitat modified by the Project, the spatial extent of modifications (reconstruction of ca. 500 m of already existing quay walls) are negligible in the context of the entire area of the EAAA (PLH220052 Dolina Słupi). Therefore, <b>the project will not have significant impact on critical habitat of European river lamprey.</b></p>	<p>Dolina Słupi (although its inclusion in the program has already been suggested; GIOŚ 2018b). For the purpose of monitoring the potential residual impacts of the Project, European river lamprey populations in the Słupia river will be monitored for the next 3 years (from the 1<sup>st</sup> year after completion of the OMB Port Ustka), using GIOS methodology (GIOS 2022), i.e. including counts of spawning adults, density of larvae, age structure of larvae, as well as freshwater habitat quality.</p>
<p>Dune brittlestem <i>Psathyrella ammophila</i></p>	<p>The habitat of the species is located in the area of landfall of the underwater/underground cable (onshore CI), in the area of the indirect impact zone of the Project, within the zone of cable landfall, within the habitat 2120 ('white dunes'). Because the derivation of cable lines from the marine area to land will be performed by trenchless method - guided drilling (HDD, DP or microtunneling), the</p>	<p>No construction activities will be performed in habitat of Dune brittlestem - all construction activities (movement of vehicles, people, temporary deposition of material) will be located out of its habitat (i.e. 'white' dunes)</p>	<p>As the construction works within the Project are not likely to impact the species, the project is not likely to lead to any significant adverse impact on Dune Brittlestem in terms of both population and range of the species.</p>	<p>Monitoring will be conducted in 50 meter radius area where this species was located in distance to 50 meters from cable line, in 1<sup>st</sup> and 3<sup>rd</sup> year after construction.</p>

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
	<p>habitat of Dune Brittlestem will not be actually affected by the construction works.</p>			
<p><i>Neolentinus cyathiformis</i> (<i>Lentinus cyathiformis</i>, <i>Neolentinus schaefferi</i>)</p>	<p>The locality where the species was found in the onshore CI area lays within the zone of direct impact of construction works (underground cable). The species was present on dead wood. One fruiting body was found at the site in 2017. During additional survey in 2021, the species was not detected again (which is not surprising, as fruiting bodies in fungi do not appear each year). Field visit in 2024 found that the particular location, although situated close to the edge of deforested area (approx.. 40 metres) remains intact, although the species was not detected as well.</p>	<p>Within the Environmental Impact Assessment, the suggested mitigation for the species was to move the dead wood fragments (trunks, branches) where the species was found into a safe, similar environment close to the original locality. However, despite the high threat status (nationally EN species), <i>Neolentinus cyathiformis</i> is not legally protected in Poland, and therefore the Environmental Decision does not impose any mitigation actions directed towards the species.</p> <p>No specific mitigation measures are needed, as the locality where the species was found was not directly affected by deforestation induced by the project, with buffer zone wide enough (40 m) to protect the location from indirect effects potentially induced by the Project (decreased humidity due to deforestation).</p> <p>Conduct pre-construction check to confirm presence or absence in area where vegetation will be cleared. This</p>	<p>The project is unlikely to have a significant, adverse effect on the national population of the species, as it is located outside the optimal habitat of the species (riparian forests in large river valleys), while the single locality where the species was found was not directly affected by the Project and it is unlikely to be affected indirectly.</p>	<p>Monitoring will be conducted in 1<sup>st</sup> and 3<sup>rd</sup> year after construction in area of 100 m radius from the point where the species was originally found.</p>

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
		will be done in areas where vegetation clearance was not done yet.		
<i>Suillus flavidus</i>	<p>The species is within the zone of indirect impact of Onshore CI.</p> <p>The locality where the species is found is may be indirectly impacted by general decrease in humidity and increase insolation (due to deforestation of the area of underground cable). However, the negative effect is only potential, and the locality is already threatened by human trampling.</p>	<p>Despite the high threat status (nationally EN species), <i>Suillus flavidus</i> is not legally protected in Poland, and therefore the Environmental Decision does not impose any mitigation actions directed towards the species.</p> <p>No specific mitigation measures are needed, as the species is located outside the area where tree felling will be conducted.</p> <p>Conduct pre-construction check to confirm presence or absence in area where vegetation will be cleared. This will be done in areas where vegetation clearance was not done yet.</p>	<p>The Project may potentially exhibit measurable adverse impact on the locality where the species is present; however, the effect is only potential and hard to measure, and the species is known to be relatively widespread in the surrounding areas.</p> <p>Therefore, it is assessed project is not likely to lead to any significant adverse impact on <i>Suillus flavidus</i> on the national scale both in the context of the species' population as well as range.</p>	<p>Monitoring will be conducted in 50 meter radius area where this species was located. Monitoring will be conducted in distance up to 50 meters from cable corridor, in 1<sup>st</sup> and 3<sup>rd</sup> year after construction</p>
<i>Phellodon fuligineoalbus</i>	<p>The species is within the zone of indirect impact of Onshore CI.</p> <p>The locality where the species is found may be indirectly impacted by general decrease in humidity and increase insolation (due to deforestation of the area of underground cable).</p>	<p>Despite the high threat status (nationally EN species), <i>Phellodon fuligineoalbus</i> is not legally protected in Poland, and therefore the Environmental Decision does not impose any mitigation actions directed towards the species.</p>	<p>The Project may potentially exhibit measurable adverse impact on the locality where the species is present; however, the effect is only potential and hard to measure.</p>	<p>Monitoring will be conducted in 50 meter radius area where this species was located in distance to 50 meters from cable line, in 1<sup>st</sup> and 3<sup>rd</sup> year after construction</p>

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
		<p>No specific mitigation measures are needed, as the species is located outside the area where tree felling will be conducted.</p> <p>Conduct pre-construction check to confirm presence or absence in area where vegetation will be cleared. This will be done in areas where vegetation clearance was not done yet.</p>	<p>Therefore, it is assessed project is not likely to lead to any significant adverse impact on <i>Phellodon fuligineoalbus</i> on the national scale, on the national scale both in the context of the species' population as well as range.</p>	
<p><i>Phellodon melaleucus</i> (<i>Phellodon connatus</i>)</p>	<p>The species is within the zone of indirect impact of Onshore CI.</p> <p>The locality where the species is found may be indirectly impacted by general decrease in humidity and increase insolation (due to deforestation of the area of underground cable).</p>	<p>Despite the high threat status (nationally EN species), <i>Phellodon fuligineoalbus</i> is not legally protected in Poland, and therefore the Environmental Decision does not impose any mitigation actions directed towards the species.</p> <p>No specific mitigation measures are needed, as the species is located outside the area where tree felling will be conducted.</p> <p>Conduct pre-construction check to confirm presence or absence in area where vegetation will be cleared. This will be done in areas where vegetation clearance was not done yet.</p>	<p>The Project may potentially exhibit measurable adverse impact on the locality where the species is present; however, the effect is only potential and hard to measure. The species is known to be relatively widespread in the surrounding areas.</p> <p>Therefore, it is assessed project is not likely to lead to any significant adverse impact on <i>Phellodon melaleucus</i> (<i>Phellodon conatus</i>) on the national scale, on the national scale both in the context of the species' population as well as range.</p>	<p>Monitoring will be conducted in 50 meter radius area where this species was located in distance to 50 meters from cable line, in 1<sup>st</sup> and 3<sup>rd</sup> year after construction</p>
<p>Zoned cork hydnum <i>Phellodon tomentosus</i></p>	<p>The species is within the zone of indirect impact of Onshore CI.</p>	<p>Despite the high threat status (nationally EN species), <i>Phellodon</i></p>	<p>The Project may potentially exhibit measurable adverse</p>	<p>Monitoring will be conducted in 50 meter</p>

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
	<p>The locality where the species is found may be indirectly impacted by general decrease in humidity and increase insolation (due to deforestation of the area of underground cable).</p>	<p><i>tomentosus</i> is not legally protected in Poland, and therefore the Environmental Decision does not impose any mitigation actions directed towards the species.</p> <p>No specific mitigation measures are needed, as the species is located outside the area where tree felling will be conducted.</p> <p>Conduct pre-construction check to confirm presence or absence in area where vegetation will be cleared. This will be done in areas where vegetation clearance was not done yet.</p>	<p>impact on the locality where the species is present; however, the effect is only potential and hard to measure.</p> <p>The species is known to be relatively widespread in the surrounding areas. Therefore, it is assessed project is not likely to lead to any significant adverse impact on <i>Phellodon tomentosus</i> on the national scale, on the national scale both in the context of the species' population as well as range.</p>	<p>radius area where this species was located in distance to 50 meters from cable line, in 1<sup>st</sup> and 3<sup>rd</sup> year after construction</p>
<p><i>Pyrrhospora querneae</i></p>	<p>The species is found in few localities within the indirect impact zone of the onshore CI (underground cable). No negative impact on those localities is indicated.</p>	<p>The Environment Impact Assessment does not contain suggested mitigation for the species. despite the high threat status (nationally EN species), <i>Pyrrhospora querneae</i> is not legally protected in Poland, and therefore the Environmental Decision does not impose any mitigation actions directed towards the species.</p> <p>No specific mitigation measures are needed, as the species is located outside the area where tree felling will be conducted.</p>	<p>As the construction works within the Project are not likely to impact the local extent of the habitat, the project is not likely to lead to any measurable, significant, adverse impact on the species on the national scale.</p>	<p>Monitoring will be conducted in 50 meter radius area where this species was located in distance to 50 meters from cable line, in 1<sup>st</sup> and 3<sup>rd</sup> year after construction</p>

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
		<p>Conduct pre-construction check to confirm presence or absence in area where vegetation will be cleared. This will be done in areas where vegetation clearance was not done yet.</p>		
<i>Pertusaria flavida</i>	<p>The species is found in one localities within the indirect impact zone of the onshore CI (reconstructed road). No negative impact on those localities was indicated in Environmental Impact Assessment. Indirect impact of the Project on the species was indicated in the Environmental Impact Assessment (increased pollution levels); however, the impact was assessed as minor.</p>	<p>The Environment Impact Assessment does not contain suggested mitigation for the species. despite the high threat status (nationally EN species), <i>Pertusaria flavida</i> is not legally protected in Poland, and therefore the Environmental Decision does not impose any mitigation actions directed towards the species.</p> <p>No specific mitigation measures are needed, as the species is located outside the area where tree felling will be conducted.</p> <p>Conduct pre-construction check to confirm presence or absence in area where vegetation will be cleared. This will be done in areas where vegetation clearance was not done yet.</p>	<p>As the construction works within the Project are not likely to directly impact the local extent of the habitat, the project is not likely to lead to any measurable, significant, adverse impact on the species on the national scale.</p>	
<i>Pertusaria hymenea</i>	<p>The species was initially found in 2019 in one locality within the direct impact of the onshore CI (underground cable) and second locality (containing 2 trees) within the indirect impact of the onshore CI</p>	<p>The Environment Impact Assessment does not contain suggested mitigation for the species. despite the high threat status (nationally</p>	<p>As the construction works within the Project are not likely to directly impact the local extent of the habitat, the project is not likely to lead to any measurable,</p>	<p>Monitoring will be conducted in 1<sup>st</sup> and 3<sup>rd</sup> year after construction in area of 50 m radius from previously known locations</p>

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
	<p>(reconstructed road). However, it was not found during a repeated survey, which took place in 2021, as well as during environmental screening prior to tree felling within the direct impact zone in 2023.</p> <p>As a consequence, it is assumed that the Project will not have any measurable direct impact on the species in the localities affected by the investment, as the species was not found here after two additional field surveys.</p> <p>There is a potential for indirect impact of the Project for conservation of the local population of the species (which remains present in the landscape outside Aol), predominantly due to increased pollution levels (lichens are a group of organisms vulnerable to atmospheric pollution, especially with sulphur oxides). However, such impact is assessed to be minor, especially taking into account the strongly maritime climate in the locality, with strong winds preventing local imission of airborne pollutants.</p>	<p>EN species), <i>Pertusaria hymenea</i> is not legally protected in Poland.</p> <p>No specific mitigation measures are needed, as the species was not found in the Aol during two field surveys.</p> <p>Conduct pre-construction check to confirm presence or absence in area where vegetation will be cleared. This will be done in areas where vegetation clearance was not done yet.</p>	<p>significant, adverse impact on the species on the national scale.</p>	<p>within a distance 100 m from cable line route.</p>
<i>Lecanora intumescens</i>	<p>The species is found in one localites within the indirect impact zone of the onshore CI (reconstructed road). No</p>	<p>The Environment Impact Assessment does not contain suggested mitigation for the species. despite the high threat</p>	<p>As the construction works within the Project are not likely to directly impact the local extent</p>	<p>Monitoring will be conducted in 50 meter radius area where this</p>



Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
	<p>negative impact on those localities was indicated in Environmental Impact Assessment. Indirect impact of the Project on the species was indicated in the Environmental Impact Assessment (increased pollution levels); however, the impact was assessed as minor (strongly maritime climate in the locality, with strong winds preventing local imission of airborne pollutants).</p>	<p>status (nationally EN species), <i>Lecanora intumescens</i> is not legally protected in Poland, and therefore the Environmental Decision does not impose any mitigation actions directed towards the species.</p> <p>No specific mitigation measures are needed, as the species is located outside the area where tree felling will be conducted.</p> <p>Conduct pre-construction check to confirm presence or absence in area where vegetation will be cleared. This will be done in areas where vegetation clearance was not done yet.</p>	<p>of the habitat, the project is not likely to lead to any measurable, significant, adverse impact on the species on the national scale.</p>	<p>species was located in distance to 50 meters from cable line, in 1<sup>st</sup> and 3<sup>rd</sup> year after construction</p>
<p><i>Anaptychia ciliaris</i></p>	<p>The species is found in one localites within the indirect impact zone of the onshore CI (reconstructed road). No negative impact on those localities was indicated in Environmental Impact Assessment. Indirect impact of the Project on the species was indicated in the Environmental Impact Assessment (increased pollution levels); however, the impact was assessed as minor (strongly maritime climate in the locality, with strong winds preventing local imission of airborne pollutants).</p>	<p>The Environment Impact Assessment does not contain suggested mitigation for the species. despite the high threat status (nationally EN species), <i>Anaptychia ciliaris</i> is not legally protected in Poland, and therefore the Environmental Decision does not impose any mitigation actions directed towards the species.</p> <p>No specific mitigation measures are needed, as the species is located outside the area where tree felling will be conducted.</p>	<p>As the construction works within the Project are not likely to directly impact the local extent of the habitat, the project is not likely to lead to any measurable, significant, adverse impact on the species on the national scale.</p>	<p>Monitoring will be conducted in 50 meter radius area where this species was located in distance to 50 meters from cable line, in 1<sup>st</sup> and 3<sup>rd</sup> year after construction</p>

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
		<p>Conduct pre-construction check to confirm presence or absence in area where vegetation will be cleared. This will be done in areas where vegetation clearance was not done yet.</p>		
<i>Ramalina fastigiata</i>	<p>The species is found in one localities within the indirect impact zone of the onshore CI (reconstructed road). No negative impact on those localities was indicated in Environmental Impact Assessment. Indirect impact of the Project on the species was indicated in the Environmental Impact Assessment (increased pollution levels); however, the impact was assessed as minor (strongly maritime climate in the locality, with strong winds preventing local imission of airborne pollutants).</p>	<p>The Environment Impact Assessment does not contain suggested mitigation for the species. despite the high threat status (nationally EN species), <i>Ramalina fastigiata</i> is not legally protected in Poland, and therefore the Environmental Decision does not impose any mitigation actions directed towards the species.</p> <p>No specific mitigation measures are needed, as the species is located outside the area where tree felling will be conducted.</p> <p>Conduct pre-construction check to confirm presence or absence in area where vegetation will be cleared. This will be done in areas where vegetation clearance was not done yet.</p>	<p>As the construction works within the Project are not likely to directly impact the local extent of the habitat, the project is not likely to lead to any measurable, significant, adverse impact on the species on the national scale.</p>	<p>Monitoring will be conducted in 50 meter radius area where this species was located in distance to 50 meters from cable line, in 1<sup>st</sup> and 3<sup>rd</sup> year after construction</p>
<i>Pleurosticta acetabulum</i>	<p>The species is found in one localities within the indirect impact zone of the onshore CI (reconstructed road). No negative impact on those localities was</p>	<p>The Environment Impact Assessment does not contain suggested mitigation for the species. despite the high threat status (nationally EN species),</p>	<p>As the construction works within the Project are not likely to directly impact the local extent of the habitat, the project is not</p>	<p>Monitoring will be conducted in 50 meter radius area where this species was located in</p>

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
	<p>indicated in Environmental Impact Assessment. Indirect impact of the Project on the species was indicated in the Environmental Impact Assessment (increased pollution levels); however, the impact was assessed as minor (strongly maritime climate in the locality, with strong winds preventing local imission of airborne pollutants).</p>	<p><i>Pleurosticta acetabulum</i> is not legally protected in Poland, and therefore the Environmental Decision does not impose any mitigation actions directed towards the species.</p> <p>No specific mitigation measures are needed, as the species is located outside the area where tree felling will be conducted.</p> <p>Conduct pre-construction check to confirm presence or absence in area where vegetation will be cleared. This will be done in areas where vegetation clearance was not done yet.</p>	<p>likely to lead to any measurable, significant, adverse impact on the species on the national scale.</p>	<p>distance to 50 meters from cable line, in 1<sup>st</sup> and 3<sup>rd</sup> year after construction</p>
<p><i>Physconia distorta</i></p>	<p>The species is found in one localites within the indirect impact zone of the onshore CI (reconstructed road). No negative impact on those localities was indicated in Environmental Impact Assessment. Indirect impact of the Project on the species was indicated in the Environmental Impact Assessment (increased pollution levels); however, the impact was assessed as minor (strongly maritime climate in the locality, with strong winds preventing local imission of airborne pollutants).</p>	<p>The Environment Impact Assessment does not contain suggested mitigation for the species. despite the high threat status (nationally EN species), <i>Physconia distorta</i> is not legally protected in Poland, and therefore the Environmental Decision does not impose any mitigation actions directed towards the species.</p> <p>No specific mitigation measures are needed, as the species is located outside the area where tree felling will be conducted.</p>	<p>As the construction works within the Project are not likely to directly impact the local extent of the habitat, the project is not likely to lead to any measurable, significant, adverse impact on the species on the national scale.</p>	<p>Monitoring will be conducted in 50 meter radius area where this species was located in distance to 50 meters from cable line, in 1<sup>st</sup> and 3<sup>rd</sup> year after construction</p>

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
		Conduct pre-construction check to confirm presence or absence in area where vegetation will be cleared. This will be done in areas where vegetation clearance was not done yet.		
Shifting dunes along the shoreline with <i>Ammophila arenaria</i> ('white dunes') (EU habitat code: 2120)	The habitat is located in the area of landfall of the underwater/underground cable (onshore CI), in the area of the indirect impact zone of the Project. Because the derivation of cable lines from the marine area to land will be performed by trenchless method - guided drilling (HDD, DP or microtunneling), the habitat will not be actually affected by the construction works.	To protect this habitat the Project will use trenchless method. This solution won't make any impact on this habitat.	As the construction works within the Project are not likely to impact the local extent of the habitat, the project is not likely to lead to any measurable, significant, adverse impact on habitat 2120 on the national scale.	The area of the habitat within the Area of Investment will be monitored annually for the next 3 years after the completion of the Project (onshore CI), using national methodology (Lemke 2015a), which includes <i>inter alia</i> : presence of plant species characteristic for the habitat, presence of nitrophilous species, condition and flowering of grasses, presence of alien/invasive species, presence of geomorphological processes (abrasion/sedimentation), signs of mechanical damage of the dune etc. The results will be used to assess presence of any residual impact of the

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
<p>Fixed coastal dunes with herbaceous vegetation ('grey dunes') (EU habitat code: 2130*)</p>	<p>The habitat is located in the area of landfall of the underwater/underground cable (onshore CI), in the area of the indirect impact zone of the Project. Because the derivation of cable lines from the marine area to land will be performed by trenchless method - guided drilling (HDD, DP or microtunneling), the habitat will not be actually affected by the construction works.</p>	<p>The Environmental Impact Assessment recognizes the need to perform construction works in the area of habitat 2130* using trenchless method.</p> <p>To protect this habitat the Project will use trenchless method as a solution. This solution will not provide any negative impact on this habitat.</p>	<p>As the construction works within the Project are not likely to impact the local extent of the habitat, the project is not likely to lead to any measurable, significant, adverse impact on habitat 2130* on the national scale.</p>	<p>Project on this particular patch of habitat 2120.</p> <p>The area of the habitat within the Area of Investment will be monitored annually for the next 3 years after the completion of the Project (onshore CI), using national methodology (Braun 2015), which includes <i>inter alia</i>: presence of plant species characteristic for the habitat, presence of nitrophilous species, condition and flowering of grasses, presence of alien/invasive species, presence of geomorphological processes (abrasion/sedimentation), signs of mechanical damage of the dune etc. The results will be used to assess presence of any residual impact of the Project on this particular patch of habitat 2130*.</p>

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
<p>Wooded dunes of the Atlantic, Continental and Boreal region (EU habitat code 2180)</p>	<p>Approx. 11 ha of the habitat is located within the zone of direct impact of Onshore CI (underground cable) and will be destroyed during construction works. The negative impact was assessed as significant in the Environmental Impact Assessment.</p>	<p>Environmental Decision does not impose any mitigation actions directed towards the habitat.</p> <p>To comply with PR6, tree felling for cable corridor was planned to use minimum of land with this habitat. No actions will be conducted outside of cable line area. No more trees will be felled.</p>	<p>Although the habitat will be destructed in the local scale during the construction works (11 ha), project is not likely to lead to a significant adverse impact on habitat on the national scale, as the extent of the habitat destroyed is only 0.09% of the habitat range within EAAA as well as at the national level (estimated at 120 km<sup>2</sup> in national report to European Commission in 2019).</p>	<p>The remaining area of the habitat indirectly impacted by the Area of Investment (i.e. within 100 m from the boundaries of the deforested area along the underground cable within Onshore CI) will be monitored annually for the next 3 years after the completion of the Project (onshore CI), using national methodology (Lemke 2015b), which includes <i>inter alia</i>: presence of plant species characteristic for the habitat, presence of alien/invasive species, presence of dead wood etc. The results will be used to assess presence of any residual impact of the Project on this particular patch of habitat 2180 bordering with the Aol.</p>
<p>Luzulo-Fagetum beech forests (EU habitat code 9110)</p>	<p>Approx. 0,78 ha of the habitat is located within the zone of direct impact of Onshore CI (underground cable) and will be destroyed during construction works.</p>	<p>Environmental Decision does not impose any mitigation actions directed towards the habitat.</p>	<p>Although the habitat will be destructed in the local scale during the construction works (0,78 ha), project is not likely to</p>	<p>The remaining area of the habitat indirectly impacted by the Area of Investment (i.e. within 100 m from the</p>

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
	The negative impact was assessed as significant in the Environmental Impact Assessment.	To comply with PR6, tree felling for cable corridor was planned to use minimum of land with this habitat. No actions will be conducted outside of cable line area. No more trees will be felled.	lead to a significant adverse impact on habitat on the national scale, as the extent of the habitat destroyed is below 0.001 % of the habitat range within EAAA, i.e. Polish lowlands (estimated at 920km <sup>2</sup> in national report to European Commission in 2019).	boundaries of the deforested area along the underground cable within Onshore CI) will be monitored annually for the next 3 years after the completion of the Project (onshore CI), using national methodology (Świerkosz & Reczyńska 2015), which includes <i>inter alia</i> : presence of plant species characteristic for the habitat, forest structure, tree age, presence of dead wood, presence of alien/invasive species, presence of dead wood etc. The results will be used to assess presence of any residual impact of the Project on this particular patch of habitat 9110 bordering with the Aol..
Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (Alno-Padion, <i>Alnion incanae</i> , <i>Salicion albae</i> ) (EU habitat code: 91E0*)	Approx. 0,68 ha of the habitat is located within the zone of direct impact of onshore CI. Because the construction of cable lines will be performed by trenchless method - guided drilling (HDD, DP or microtunneling), the habitat will not	There was no Environmental Decision issued for 15 kV power back-up supply, because this investment is not qualified as an investment that has to obtain Environmental Decision.	As the construction works within the Project are not likely to impact the local extent of the habitat, the project is not likely to lead to any measurable adverse impact on habitat	The patch area of the within Area of Investment will be monitored annually for the next 3 years after the completion of the Project (onshore CI), using

Species / Habitat	Potential impacts	Planned mitigation (Environmental Decision); suggested additional mitigation (if needed)	Measurable adverse impact	Planned monitoring (Environmental Decision)
	<p>be actually affected by the construction works.</p>	<p>However, the mitigation (avoidance of impact) will be performed using trenchless method of construction of underground cable within the patch of habitat that lays within Project Area.</p>	<p>91E0* (both in terms of habitat quality and habitat area within the EAAA).</p>	<p>national methodology (Pawlaczyk 2015), which includes <i>inter alia</i>: presence of plant species characteristic for the habitat, forest structure, tree age, presence of dead wood, presence of alien/invasive species, presence of dead wood etc. The results will be used to assess presence of any residual impact of the Project on this particular patch of habitat 91E0 within the Aol.</p>



## 6 Literature

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HELCOM Red List Bird Expert Group 2013 Species information sheet *Aythya marila*

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European Environment Agency, EUNIS (European Nature Information System) database, Biotope information sheet: 3150 *Natural eutrophic lakes with Magnopotamion or Hydrocharition-type vegetation*

European Environment Agency, EUNIS (European Nature Information System) database, Biotope information sheet: 3160 *Natural dystrophic lakes and ponds*

European Environment Agency, EUNIS (European Nature Information System) database, Biotope information sheet: 3260 *Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation*



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European Environment Agency, EUNIS (European Nature Information System) database, Biotope information sheet: 7140 *Transition mires and quaking bogs*

European Environment Agency, EUNIS (European Nature Information System) database, Biotope information sheet: 7150 *Depressions on peat substrates of the Rhynchosporion*

European Environment Agency, EUNIS (European Nature Information System) database, Biotope information sheet: 7230 *Alkaline fens*

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European Environment Agency, EUNIS (European Nature Information System) database, Biotope information sheet: 9190 *Old acidophilous oak woods with Quercus robur on sandy plains*

European Environment Agency, EUNIS (European Nature Information System) database, Biotope information sheet: 91D0 *Bog woodland*

European Environment Agency, EUNIS (European Nature Information System) database, Biotope information sheet: 91E0 *Alluvial forests with Alnus glutinosa and Fraxinus excelsior*

HELCOM Red List Biotope Expert Group 2013 Biotope information sheet 1110 *Sandbanks*

HELCOM Red List Biotope Expert Group 2013 Biotope information sheet 1170 *Reefs*