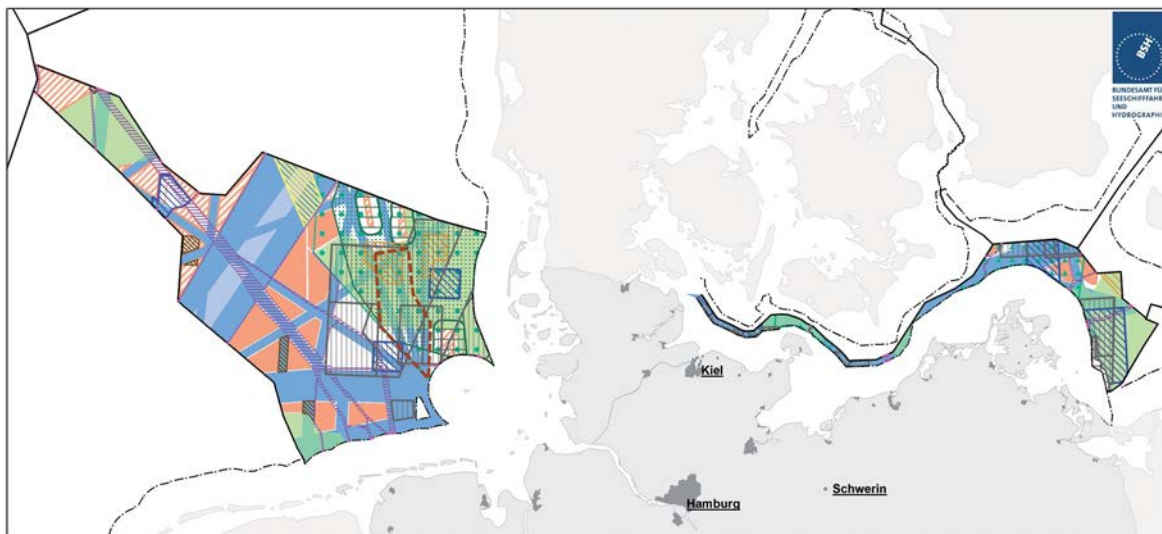


**Annex to the Spatial Planning Ordinance  
for the German exclusive economic zone in  
the North Sea and in the Baltic Sea  
dated 19 August 2021**

**- unofficial translation -**

# Spatial Plan for the German Exclusive Economic Zone in the North Sea and in the Baltic Sea



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## List of abbreviations

AIS data	Data from the Automatic Identification System in shipping
EEZ	Exclusive Economic Zone
BALTBOX	Baltic Sea Box Survey (Thünen Institute of Baltic Sea Fisheries)
BBergG	Federal Mining Act
BMU	Federal Ministry for Environment, Nature Conservation and Nuclear Safety
BNatSchG	Federal Nature Conservation Act
FNA	Federal Network Agency
BSH	Federal Maritime and Hydrographic Agency
EEG	Renewable Energies Act
EU	European Union
SDP	Site development plan
FFH	Flora Fauna Habitat
GW	Gigawatt
GSBTS	German Small-Scale Bottom Trawl Survey
HELCOM	The Baltic Marine Environment Protection Commission (Helsinki Commission)
ICES	International Council for the Exploration of the Sea
IMO	International Maritime Organisation
Km	Kilometre
m	Metre
MARNET	Measuring network of automatic recording stations in the German Bight and the western Baltic
MARPOL	International Convention for the Prevention of Pollution from Ships from 1973
MSFD	Directive 2008/56/EC of the European Parliament and the Council dated 17 June 2008 for the establishment of a Framework for Community Action in the field of Marine Environment (Marine Strategy Framework Directive)
OffshoreBergV	Mining Ordinance for the Area of Coastal Waters and the Continental Shelf
OSPAR	Convention for the Protection of the Marine Environment of the North-East Atlantic
OWF	Offshore wind farm
ROG	Spatial Planning Act
SAR	Search and Rescue
SeeAnIG	Maritime Facilities Act
sm	Nautical mile
UNCLOS	United Nations Convention on the Law of the Sea
VMS	Vessel Monitoring System
TSA	Traffic separation area
WindSeeG	Offshore Wind Energy Act

## 1 Vision

### Using and preserving the sea in all its diversity

The sea is a special space that combines many different functions. Healthy seas provide space for biodiversity, make an important contribution to climate protection, and offer a wide range of ecosystem services. The responsible use of maritime resources is the basis of a sustainable marine economy that contributes to prosperity for present and future generations. The sea with its diverse uses connects people, living spaces, and markets and creates opportunities for an open-minded exchange between countries and cultures. The fundamental use of climate-friendly technologies, especially offshore wind energy and other renewable energies, supports energy security and the achievement of national and international climate targets. At the same time, the sea offers space for traditional uses such as shipping, fishing, recreation, and leisure and contains human traces that may have cultural-historical significance.

Maritime spatial planning preserves the natural structures and functions of the seas and makes provisions for the diverse current and future uses of the maritime space and its protection in the European context. It balances different demands and interests by prudently weighing environmental, economic, and social concerns in line with the Sustainable Development Goals of the United Nations.

The vision is specified in the following guiding principles:

- Support of coherent international maritime spatial planning and territorial cooperation through cooperation with other countries and at a regional seas level.
- Consideration of land-sea relationships and transport and value chains by closely working with the coastal federal states for coherent planning.
- The basis for a maritime economy that is in line with the goals of sustainable development:
  - Ensuring orderly spatial development by coordinating current and future spatial demands,
  - Prioritisation of sea-specific uses and the maxim of sparing and optimised use of space as well as the reversibility of fixed installations,
  - Foundation on the precautionary principle and the ecosystem approach, which enables a holistic view of the different activities in the sea with their interrelationships and cumulative effects.
- Maritime spatial planning coordinates different uses and protective components. According to Section 17, paragraph 1, sentence 2 ROG, it supports
  - The safety and efficiency of navigation,
  - Other economic uses, in particular renewable energy,
  - scientific uses, in particular marine research,
  - security aspects, especially national and alliance defence.
- At the same time, according to Section 17, paragraph 1, sentence 2 ROG, it shall contribute to the protection and enhancement of the marine environment, including the achievement of a good status of marine waters, taking into consideration climate protection through
  - appropriate spatial designations for the marine environment, and
  - designations for avoiding or mitigating harmful impacts and pollution resulting from the above-mentioned uses.

The following designations apply within the framework of European and international law, in particular taking into consideration UNCLOS.

The medium-term guiding effect of the spatial plan makes it possible to adapt the designations to the situation if this becomes necessary in the sense of the guiding principle of spatial planning – namely sustainable and future-oriented spatial development from an economic, social, and ecological point of view. In this regard, all sectoral concerns are evaluated on an ongoing basis; the BSH is in contact with the relevant federal ministries.

## 2 Designations

Spatial planning objectives are marked with (O), spatial planning principles with (P).

Priority areas have the legal character of spatial planning objectives and reservation areas that of spatial planning principles.

### 2.1 Ensuring the safety and efficiency of shipping (Section 17, paragraph 1, sentence 2, no. 1 ROG)

#### Objectives and principles

- |   |  |
|---|--|
| (1) Areas SN1 to SN18 and SO1 to SO4 shown in Figure 1 and Figure 2 in the Appendix are designated as priority areas for shipping.  | Priority areas shipping                              |
| When overlapping priority areas for shipping with priority areas for nature conservation, shipping enjoys priority within the framework of the international legal requirements of UNCLOS. (O)  |  |
| (2) The temporary priority area for shipping within SN10 shown in Figure 1 in the Appendix is defined until 31 December 2035; it then becomes a reservation area for shipping.  | Temporary priority area shipping                     |
| (3) Area SN19 (Figure 1 in the Appendix) is designated as a reservation area for shipping until 31 December 2030. The time limit shall not apply if the Federal Ministry responsible for shipping proves to the Federal Ministry responsible for spatial planning by 31 December 2025 that this area is required for shipping for compelling reasons of safety and efficiency of shipping | Temporary reservation areas shipping                 |
| Area SO5 (Figure 2 in the Appendix) is designated as a reservation area for shipping until 31 December 2025. The time limit shall not apply if the Federal Ministry responsible for shipping proves to the Federal Ministry responsible for spatial planning by 30 June 2022 that this area is required for shipping for compelling reasons of safety and efficiency of shipping.         |  |
| (4) Shipping is to be carried out with sustainability in mind. The aim is to reduce the impact of shipping on the marine environment. In addition to observing the regulations of the IMO, best environmental practice in accordance with international conventions on ocean protection and the state of the art in science and technology are to be taken into consideration. (P)        | Sustainability, protection of the marine environment |

#### Justification

##### *Preliminary remarks*

As a coastal state under UNCLOS, the Federal Republic of Germany does not exercise sovereignty; rather it only has functional sovereign rights in the EEZ. Similarly, freedom of shipping in accordance with Article 58, paragraph 1 UNCLOS applies, in principle, within the EEZ. Freedom of navigation must therefore be given special consideration when organising the functions of the EEZ over which the coastal State exercises sovereign rights. In particular, according to Article 60, paragraph 7 UNCLOS, artificial islands, installations and structures and the safety zones surrounding them shall not be constructed where they may impede the use of recognised shipping routes important for international navigation. Accordingly, the ROG as well as various specialised laws give high priority to the safety and efficiency of navigation in respect of use of the EEZ. The main purpose is to keep important shipping routes free from uses that endanger them.

In the ongoing evaluation and any update of the plan, special consideration will be given to the developments of the spatial plans of neighbouring countries and their impacts on the German EEZ in order to ensure that the "German Bight" transport area is connected in line with demand and to enable transit traffic to pass through the EEZ. In this context, shipping concerns will probably be of particular interest both with regard to the northbound routes (possible ice-free North Pole and related traffic shifts) and with regard to the west-eastbound connections to Skagerrak.

In particular, the traffic separation areas in the North Sea and Baltic Sea designated by the IMO must be taken into consideration. In addition, the actual shipping lanes determined on the basis of AIS traffic analyses as well as the lanes identified as being important in the future are also taken into account.

##### *Justification of the objectives and principles*

##### *Re (1) Priority areas for shipping:*

Maritime transport to the German seaports on the North Sea and Baltic Sea coasts represents a significant transport economic factor for the Federal Republic of Germany as a foreign trade nation. Without functioning and safe shipping traffic, no flourishing world trade is conceivable.

The spatial planning provisions for shipping serve in particular to provide additional spatial planning safeguards for basic nautical requirements in the area of important routes. Any requirements going beyond this (nautically necessary extension of shipping routes/manoeuvring space) remain unaffected.

The width of the designated areas is based in particular on the need to ensure the basic spatial planning safeguarding of a shipping route network. Here, nautical considerations are important. The priority areas represent the basic framework which must be kept free of all incompatible uses, in particular construction above the seabed.

The safety and efficiency of shipping will thus also be secured for the future in terms of planning. On all regularly travelled routes, shipping is as trouble-free and uncomplicated as possible.

In the North Sea EEZ, the Terschelling German Bight and German Bight Western Approach traffic separation zones are designated as priority areas (SN1 and SN2) over their entire width, including corresponding safety zones. In addition, the main shipping routes identified based on their traffic level are defined as having a width of 3 nautical miles (1 nautical mile (NM) corresponds to 1.852 km) (SN3 - SN18, with the exception of SN10). The width of 3 sm is based on the shipping routes designated in the 2009 plan, which essentially comprise a 1 sm wide priority area and reservation areas flanking it on both sides, also each 1 sm wide. A differentiation between priority area and reservation area is now dispensed with, since the areas of the former reservation areas are also necessary for sustainably safe shipping and therefore it must not be possible for other uses to supplant them.

An exception is Route SN10, which in the south takes up traffic from existing traffic separation areas in the Netherlands and essentially acts as a transit route through the German EEZ to the Danish EEZ and from there to the Baltic Sea. In contrast to the other main shipping routes outside TSA, the route is much more heavily used and the traffic is also widely distributed because of the traffic inlets and outlets.

Against this background, priority areas are designated here based on the recorded traffic flows.

The German EEZ in the Baltic Sea is a very busy shipping area due to its tightly-meshed spatial interdependencies.

The current traffic observation based on AIS data essentially confirms the picture of 2009, so that the priority and reservation areas designated so far continue to exist. In addition, in the Baltic Sea, designation SO4 is made to adapt to the traffic flows and to the designations in the draft of the Swedish spatial plan. In the North Sea, designations SN15 to SN18 are made to secure transit traffic and northbound traffic.

By paying attention to existing traffic flows, operational objective UZ2-03 of the Marine Strategy Framework Directive (MSFD) "Preventing and combating marine pollution – improving maritime emergency preparedness and management" is also supported.

#### *Re (2) Temporary priority area shipping:*

The internationally recognised shipping route Den Helder - Skagen (SN10) is navigated by more than 16,000 ships per year with a continuing upward trend and has a high lateral distribution, with a high proportion of tanker traffic in the western and a high proportion of cargo traffic in the eastern part of SN10. Because of the increase in shipping traffic, there is a need for appropriate sites dedicated to shipping to ensure its safety and ease. Shipping route SN10 is therefore identified as a priority area.

However, in conjunction with the Netherlands and Denmark, the Federal Government is currently investigating traffic-directing measures, such as a traffic separation area in the area of the current shipping route SN10. If the results of this investigation are positive, corresponding international initiatives (e.g. negotiations in the IMO) will be launched. If these are positive, the traffic management measures would have a safety-enhancing effect because they could, among other things, equalise the oncoming traffic and thus possibly result in a reduced space requirement for shipping. In this case, sites no longer necessary for shipping could be redesignated for other uses in a further update of the spatial plan. In this context, the use of land for offshore wind energy could be considered in order to achieve the climate targets at both the national and European level. Accordingly, in designation (2), the sites within SN10 that may later no longer be necessary are temporarily designated as a priority area until 2035. However, in order to ensure that the safety and ease of traffic will continue to be guaranteed in the event that internationally coordinated traffic management measures are not successful, these sites will be designated for shipping from 31 December 2035.

#### *Re (3) Temporary reservation areas for shipping:*

Shipping routes SN19 and SO5 are designated as temporary reservation areas. This ensures that there is sufficient time to analyse the traffic situation in the areas and to examine the necessity of the designation. As a basis for the Federal Ministry responsible for shipping to prove whether the areas are necessary for the safety and efficiency of shipping beyond the time limit, the BSH shall commission appropriate reports (e.g. numerical evaluations, simulations of risk scenarios) in consultation with the Federal Ministry responsible for shipping and the Directorate-General for Waterways and Shipping (GDWS).



The affected littoral states of the North Sea and the Baltic Sea will be involved in the investigation and evaluation.

*Re (4) Sustainability, protection of the marine environment:*

International agreements on the prevention of adverse effects on the marine environment – such as the international conventions MARPOL, OSPAR, and HELCOM in particular – aim to ensure that shipping has as few adverse effects on the marine environment as possible. In addition to the mandatory regulations of the IMO, best environmental practice under the OSPAR Convention and the Helsinki Convention of 1992 with its updates (last update on 1 July 2014) and the respective state of the art must be taken into account.

Compliance with the limits for sulphur oxide and nitrogen oxide emissions as part of the International Convention MARPOL also supports environmental objective 1 developed by Germany for the North Sea and Baltic Sea in accordance with Article 10 MSFD: Marine environments free of adverse effects by human-induced eutrophication.

## **2.2 Other economic uses (Section 17 subsection 1 sentence 2 number 2 ROG)**

### **2.2.1 General requirements for economic uses Objectives and principles**

- |       |  |   |
|-------|--|---|
| (1)   | Economic uses should be sustainable and as space-sparing as possible. (G)  | Sustainability and sparing use of space   |
| (2)   | Fixed installations are to be deconstructed at the end of their use. Deviating legal regulations remain unaffected. (O)  | Deconstruction  |
| (3)   | Economic uses should adversely affect other uses as little as possible.<br><br>This applies equally to adverse effects <ul style="list-style-type: none"><li>– on the safety and efficiency of shipping,</li><li>– on other economic uses,</li><li>– on scientific research,</li><li>– on national and alliance defence, and</li><li>– on cultural heritage. (P)</li></ul>   | Minimisation of adverse effects on other uses                                   |
| (4.1) | A threat to the marine environment from economic uses – in particular adverse impacts on the natural functions of the marine ecosystem – shall be avoided as far as possible. This also includes consideration of species-specific periods that are particularly susceptible to disturbance and of ecological interactions of animal and plant species. (P)<br><br>Best environmental practice in accordance with international conventions on marine protection and the state of the art in science and technology should be taken into consideration. This is to trigger a development in the sense of the precautionary principle. In this context, no measures for which the application is technically not feasible or justifiable under consideration of cost-benefit ratios are demanded. Sectoral clauses deviating from the state of the art in science and technology shall remain unaffected. (P) | Preventing threats to the marine environment<br><br>Best environmental practice |
| (4.2) | Knowledge on the impacts of uses on the marine environment obtained during monitoring carried out at the project level in accordance with sectoral law shall be made available to the BSH. (P)   | Monitoring  |

### **Justification**

*Justification of the objectives and principles*

*Re (1) Sustainability and sparing use of space:*

The sustainable development of space is the guiding principle of spatial planning (cf Section 1, paragraph 2 ROG). This also includes using the limited resource of space as efficiently as possible. In the case of competing uses, this means that the individual uses must be as sustainable and sparing as possible. The German EEZ is very limited in size, but at the same time its area is of great importance for various uses and the marine environment. Great importance is therefore attached to the consumption of space. This applies equally to all uses.

The conservation of natural resources is a prerequisite for their use. Economic uses should therefore be sustainable in the sense of intergenerational use.

In particular, fish stocks are to be managed sustainably in order to ensure long-term fishing use.

*Re (2) Dismantling:*

Sparing use of space also means that sites must be available again for any subsequent uses and protective functions after the end of a particular use. This basic idea is already expressed in various sectoral legislation and in UNCLOS. The provisions of the sectoral legislation and their concerns shall remain unaffected.

The deconstruction of installations and pipelines is intended to create new space for subsequent use. Re-use in this sense also includes renewed use by offshore wind energy and other energy generation installations.

*Re (3) Minimisation of adverse effects on other uses:*

The sustainable development of space also means that in the case of competing uses, spatial planning should work to ensure that the individual uses can develop as well as possible and that this happens within a framework that adversely affects the other uses as little as possible.

Because the large number of existing and planned economic uses in the EEZ, the sometimes high rate of usage, and the resulting pressure of use, it is necessary to plan the economic uses in such a way that they adversely affect each other as little as possible. This principle applies to all uses and requires mutual consideration and coordination. This can be implemented, for example, by coordination in terms of time or by maintaining distances between uses. This general principle thus incorporates the requirement from the 2009 spatial plan that measures for the extraction of raw materials and the construction of wind turbines must maintain a distance from existing pipelines and submarine cables that is sufficient for safe operation and maintenance. In this context, the designation of an appropriate distance is the subject of sectoral planning (such as the SDP) or the planning approval.

*Safety and efficiency of shipping:*

For maritime traffic, the designation takes into account the requirements of international law, in particular from Article 58, paragraph 1 and Article 60, paragraph 7 UNCLOS as well as the great importance of shipping for the Federal Republic of Germany and the importance of the German EEZ for international shipping traffic. These requirements have already been specified in some specialised legislation, such as Section 48, paragraph 4, number 2 WindSeeG and Section 5, paragraph 3, number 2 SeeAnlG.

*Other economic uses:*

The expansion of offshore wind energy in the EEZ is of outstanding importance for achieving the German and European climate protection goals. Without the expansion of offshore wind energy, which will be complemented by cross-border projects in the future, these goals are unattainable. The spatial plan takes particular account of this special significance. Because the long planning and approval periods for offshore wind turbines and for offshore connecting cables, it is already necessary at the level of the spatial plan to secure sites for offshore wind energy in the long term and to strive for co-use with other uses.

*Scientific research:*

Various research institutes for marine and fishery research as well as the BSH carry out extensive research activities on recurring routes and at the same locations in the EEZ – often regularly and over longer periods of time. These activities should be adversely affected as little as possible by economic uses; in the event of possible conflicts, consultations on possible solutions should take place at an early stage with the research institutions concerned.

At stationary measuring stations with permanently installed measuring equipment of authorities and research institutes, continuous long-term measurements are usually performed. In order not to threaten the series of investigations for basic research and environmental monitoring, uses that could adversely affect these measurements should maintain an appropriate distance.

In areas of wind energy, the aim is also to continue to enable marine scientific research not directly related to the planning, construction, and operation of wind farms. To this end, the concerns of the research facilities should be taken into consideration as early as possible during the conceptual design of the projects and, if possible, without this leading to adverse effects or delays in the operation of the wind farms. At the downstream planning and decision-making levels, the concerns of research (e.g. the passability of wind farms with research vehicles) should be taken into consideration to a large extent. From the point of view of spatial planning, it would be desirable if corresponding traffic regulations were issued at the downstream level.

#### *National and alliance defence:*

The military interests and the functional capability of the Federal Armed Forces are to be safeguarded.

A more detailed specification of this in technical legislation can already be found in Section 48, paragraph 4, No. 3 WindSeeG and Section 5, paragraph 3, No. 3 SeeAnIG.

#### *Cultural heritage:*

Underwater cultural heritage includes all traces of human existence that have a cultural, historical, or archaeological character and are located either on the seabed or in the subsoil of the sea. These include extinct settlement landscapes with artefacts, building structures, and human and animal remain, as well as plant and geological/geomorphological evidence that can be seen in the context of human activity. Likewise, underwater cultural heritage includes wrecks of water craft, aircraft, and vehicles, wreckage, and associated equipment, cargoes, and inventories.

The general principle for minimising the adverse effects of economic uses on the underwater cultural heritage aims to ensure that appropriate measures are taken at an early stage in consultation with the technical authorities in order to avoid or minimise negative impacts.

The early involvement of the authorities responsible for heritage management and archaeology in the context of projects in the EEZ is intended to ensure that the technical classification and appropriate assessment and preservation of cultural assets can be carried out in good time and that any existing findings of the authorities can be taken into consideration when planning investigations in the context of the projects. This is particularly true for those uses that may directly result in knowledge of or adverse effects on the cultural heritage (e.g. exploration of the seabed for economic uses). In addition to sites of cultural assets for which knowledge is already available, previously unknown sites and sites newly discovered in the course of economic use should also be taken into consideration.

#### *Re (4.1) Avoidance of threat to the marine environment:*

Under Section 17 subsection 1 sentence 1 number 4 ROG, the spatial development plan is to lay down provisions which serve to protect and improve the marine environment. A threat to the marine environment should be avoided as far as possible. Unavoidable impacts are to be reduced as far as possible. This principle also takes up existing technical regulations and generalises them in the interests of sustainable use of the EEZ using the ecosystem approach.

For example, in the case of offshore wind energy and power cables, the avoidance of the threat to the marine environment is already a standard of review in the sectoral planning and planning approval. In accordance with Section 48, paragraph 4 WindSeeG, the plan may be adopted only if the marine environment is not threatened. Section 49 BBergG contains a similar provision for the exploration of free and natural mineral resources. In accordance with Section 3 Offshore Mining Ordinance, it must be ensured that negative impacts on the marine environment are avoided or minimised during mining activities.

The adverse effects on occurrences of legally protected biotopes according to Section 30 BNatSchG should be avoided during the planning, construction, and operation of installations for energy generation and power lines. In order to avoid negative impacts on sensitive habitats, the submarine cables should be planned and laid outside nature reserves where possible. Further technical and nature conservation regulations remain unaffected.

#### *Best environmental practice:*

Not all negative environmental impacts can be avoided in the actual economic use. In terms of minimisation, existing best environmental practice according to the OSPAR and Helsinki Conventions, other relevant international agreements, and the state of the art in science and technology should be taken into consideration. The specific implementation (e.g. the consideration of species-specific periods of time particularly susceptible to disturbance) is to be regulated, if available, at downstream planning levels, in particular planning approval taking into consideration the special features of the project area. In this context, no measures for which the application is technically not feasible or justifiable under consideration of cost-benefit ratios are demanded.

The use of the state of the art in science and technology as a benchmark is made in order to take account of the existing uncertainty and the lack of offshore knowledge in many places, in accordance with the precautionary principle and the ecosystem approach. Sectoral regulations, such as those in OffshoreBergV remain unaffected. Where the state of the art does not yet exist, the state of science and technology should also be taken into account. This was the case for a long time, for example, with the minimisation of pile driving noise through the recommendations in the BMU concept for the protection of harbour porpoises (*Phocoena phocoena*) from noise pollution during the construction of offshore wind farms in the German North Sea (noise abatement concept of 2013). Where recognised rules of technology or a state of the art have been developed, these should be used.

#### Re (4.2) Monitoring:

In order to ensure that the EEZ is used in the most environmentally compatible manner possible, data and findings on the impacts of economic uses on the marine environment obtained in the course of project-related monitoring are to be made available to the BSH. The intended monitoring can be regulated by corresponding requirements of the licensing authority and corresponds to the existing approval practice of the technical authorities. For the investigation and monitoring of the impacts of wind turbines, the BSH standard investigation concept, for example, regulates the type and scope of the required project-related investigations. The results obtained at project level are used for monitoring the implementation of the maritime spatial plan.

At the same time, monitoring serves to gain further knowledge and thus enables future sustainable use using the ecosystem approach.

### 2.2.2 Offshore wind energy

#### Objectives and principles

- |       |  |   |
|-------|--|---|
| (1)   | Areas EN1 to EN3, EN6 to EN13, and EO1 to EO3 shown in Figure 3 and Figure 4 in the Appendix are designated as priority areas for offshore wind energy.<br><br>Area EN13-North shown in Figure 3 in the Appendix shall be designated as a priority area for offshore wind energy as of 1 January 2030 unless the Federal Ministry responsible for shipping proves to the Federal Ministry responsible for spatial planning by 31 December 2025 that this area is required for shipping for compelling reasons of safety and efficiency of shipping.  | Priority areas for wind energy<br><br>Conditional priority area for wind energy |
| (2)   | Areas EN4, EN5 and EN14 to EN19 shown in Figure 3 in the Appendix are designated as reservation areas for offshore wind energy.<br><br>Area EO2-West shown in Figure 4 in the Appendix shall be designated as a reservation area for offshore wind energy from 1 January 2025 unless the Federal Ministry responsible for shipping proves to the Federal Ministry responsible for spatial planning by 30 June 2022 that this area is required for shipping for compelling reasons of safety and efficiency of shipping.<br><br>Area EN20 shown in Figure 3 shall be designated as a reservation area for offshore wind energy from 1 January 2027 unless the Federal Ministry responsible for fishery research proves to the Federal Ministry responsible for spatial planning by 31 December 2026 that keeping the area free of development by wind turbines is essential for fishery research. | Reservation areas wind energy<br><br>Conditional reservation areas wind energy  |
| (3)   | Insofar as the areas for wind energy EO2-West and EN20 are also designated as reservation areas for research FoN3 and FoO3, fishery research should remain possible in the type and scope in which it has been carried out to date. (P)  | Multi-use   |
| (4)   | Fishing vessels should be able to pass through wind farms on their way to their fishing grounds. Passive fishing with fish traps and baskets shall be possible in the safety zones of the wind farms; however, this shall not apply to the area enclosed by the outer installations of the wind farm nor to the immediate vicinity of the outer installations. Sentences 1 and 2 shall apply insofar as the construction, operation, and maintenance of the wind farms are adversely affected as little as possible, and subject to conflicting regulations under sectoral law. (P)  | Fisheries   |
| (5.1) | Wind farms and their safety zones may be navigated by vehicles of the Federal Armed Forces in accordance with the principles of good seamanship provided that the operation and maintenance of the wind farms are not or are only insignificantly adversely affected. (O)  | Defence   |
| (5.2) | It shall be possible for the Federal Armed Forces to install and operate fixed installations such as transmitters and receivers on installations for energy generation. Sentence 1 shall apply subject to the provision that the operation of the military installations on installations for energy generation is necessary from a military point of view for national and alliance defence and that the operation of the installations for energy generation is thereby adversely affected as little as possible. (P)  | Defence   |
| (6)   | The input of sound into the marine environment during the construction of energy generation installations shall be avoided as far as possible according to the state of the art in science and technology. (P)<br><br>There should be overall coordination of the construction work of installations for energy generation and of installations which are spatially related to them. (G)   | Protection of the marine environment  |

## Justification

### *Preliminary remarks*

As overall planning, spatial planning brings together the interests of different uses and makes provisions for uses and the diverse functions of the sea. The spatial plan regulates the area categories (priority and reservation areas) as well as other objectives and principles for various uses at a higher planning level. There is also a staged planning and approval process for the wind energy sector. In this case, specialised energy planning includes site development planning, determination of suitability, and the actual approval of wind turbines.

The site development plan (SDP), which is drawn up and updated by the BSH, serves as a specialist planning instrument for wind energy. The SDP was published for the first time on 28 June 2019 and serves to implement the expansion target for offshore wind energy in accordance with WindSeeG. The plan designates mainly areas and sites for wind turbines, the expected capacity to be installed on the sites, and the order in which the sites are to be put out to tender. In addition, the FEP defines routes, route corridors, locations as well as planning and technical principles. In accordance with

Section 5, paragraph 3, No. 1 WindSeeG, designations of the SDP are inadmissible in particular if they do not comply with the requirements of spatial planning according to Section 17, paragraph 1 ROG. In this respect, there is a need for an exchange and comparison of the designations in the sectoral and overall planning.

### *Justification of the objectives and principles*

#### *Re (1) Priority areas for wind energy:*

The spatial safeguarding of sites for wind energy production is an expression of the spatial planning mission statement of sustainable, climate-protecting development. In particular, it enables the implementation of the ideas of the mission statement on the use of climate-friendly energies, support for energy security, and the achievement of national and international climate targets and the greenhouse gas neutrality target 2045 (Climate Protection Act) and 2050 (European Green Deal).

The starting point for defining priority areas for wind energy are initially the Areas O-1 and O-3 (Baltic Sea), N-1 to N-3, and N-6 to N-13 (North Sea) designated in SDP 2020. These areas are designated as priority areas EN1 to EN3 and EN6 to EN13 (North Sea) and EO1 through EO3 (Baltic Sea).

The designation of Area EN13-North as a priority area for offshore wind energy from 1 January 2030 is subject to the proviso that the Federal Ministry responsible for shipping does not prove to the Federal Ministry responsible for spatial planning by 31 December 2025 that this area is required for shipping for compelling reasons of safety and efficiency of shipping. This ensures that there is sufficient time to analyse the traffic situation in the areas and to examine the necessity of the area for shipping.

The scope of the defined priority areas for offshore wind energy is intended to ensure the implementation of an increased expansion target of the federal government by 2030. The defined priority areas for offshore wind energy thus also serve to achieve the expansion target for offshore wind energy of 20 GW by 2030 specified in the Integrated National Energy and Climate Plan<sup>1</sup> and as a contribution to decarbonising the electricity sector by 2045. The EEG contains the target that all electricity generated or consumed within the territory of the Federal Republic of Germany, including the German exclusive economic zone, should be generated in a greenhouse gas-neutral manner before 2050.

#### *Re (2) Reservation areas for wind energy:*

The designation of reservation areas for wind energy serves to secure sites for the further expansion of offshore wind energy. Similarly, the designation of the reservation areas serves to raise coastal potentials and to secure a further expansion path on the best possible data basis, especially with regard to competing uses.

The WindSeeG sets an expansion target of 40 GW by 2040.

Similarly, the scenario framework 2021 – 2035/2040 of the transmission system operators approved by the FNA on 26 June 2020 provides for an installed generation capacity from offshore wind energy of 28 to 34 GW by 2035 and 40 GW by 2040 depending on the scenario. Significant land potential is predominantly found in the area north west of the SN10 shipping route. The above-mentioned objectives are to be secured by the maritime spatial plan, as they serve to develop the EEZ with a view to a sustainable energy supply for future generations. Because of the lack of conclusive findings on the environmental impacts as well as the time horizon that goes beyond medium-term planning, the areas are designated as reservation areas.

The designation of Area EN13-West as a reservation area for offshore wind energy from 1 January 2025 is subject to the proviso that the Federal Ministry responsible for shipping does not prove to the Federal Ministry responsible for spatial planning by 30 June 2022 that this area is required for shipping for compelling reasons of safety and efficiency of shipping. This ensures that there is sufficient time to analyse the traffic situation in the areas and to examine the necessity of the area for shipping.

<sup>1</sup> Dated 13 October 2016, BGBl. I p. 2258, 2310.



The designation of Area EN20 as a reservation area for offshore wind energy from 1 January 2027 is subject to the proviso that the Federal Ministry responsible for fishery research proves to the Federal Ministry responsible for spatial planning by 31 December 2026 that the site layout of FoN3 in Figure 10 is suitable for research. This ensures that it can be analysed whether the conditions for a possible multiple use of the EN20 area are met.

*Re (3) Multiple use:*

The overlapping of wind energy areas EN20 and EO2 with the reservation areas for research FoN3 and FoO3 takes into account the achievement of the expansion targets for both renewable energies and fishery research. In order to enable practical multiple use here, it should be ensured that fishery research can be continued in the usual manner (including the necessary ground-based fisheries research) when wind turbines are erected.

*Re (4) Fisheries:*

The large-scale use of further areas for energy generation and planned fisheries management measures in the nature conservation areas in the EEZ are likely to deprive fisheries of further sites. Against this background, the Federal Ministry responsible for spatial planning will conduct a research project with the Federal Ministries responsible for fisheries and shipping. In this, it is scientifically investigated and examined on the basis of concrete case constellations whether and to what extent a joint use of sites by offshore wind energy and fishing can be made possible with regard to safety concerns in terms of both passive and active fishing. The research framework, which addresses the issue of safety with regard to possible fishing in the affected sites, is coordinated in advance with the federal ministries responsible for the environment and energy.

*Re (5.1) Defence:*

The increase in fixed installations in the EEZ is associated with a restriction in the freedom of movement of Federal Armed Forces vehicles; at the same time, it is to be expected that built-up sites will become operational space in the event of defence. In order to ensure effective national and alliance defence, it is already necessary to drive on wind farms in the event of peace. In principle, the spatial planning designation of wind energy areas must not stand in the way of this. The wind farms shall be navigated in accordance with the principles of good seamanship (i.e. the wind farms shall normally be traversed to reach a destination outside the wind farms and, in particular, no exercise activities that adversely affect the safe and economic operation of the wind farm shall take place within the wind farms).

The military interests and the functional capability of the Federal Armed Forces are to be safeguarded.

*Re (5.2) Defence:*

Furthermore, a large number of new wind turbines to be installed complicates reconnaissance; however, the wind farms and their ancillary installations offer extensive opportunities for the installation of technical devices. In order to avoid further adverse effects of national and alliance defence, it should therefore be possible to install devices that serve reconnaissance purposes in particular. To safeguard national and alliance defence, sufficiently large areas suitable for the respective purpose and accessible without restricting the functional capability of the Federal Armed Forces are required for military uses. These include areas (cf Chapter 2.5) on and over the sea (i.e. from the airspace to the seabed).

*Re (6) Protection of the marine environment:*

The principle serves an orderly and sustainable spatial development by minimising noise impairments and by coordinating current and future spatial use requirements. This takes into consideration the ecosystem approach, the precautionary principle, and the interrelationships and cumulative effects of the uses.

The application of state-of-the-art noise abatement measures will reduce noise emissions into the marine environment that often accompany the construction of energy generation installations. This principle is in line with the ongoing administrative practice of the BSH and the provisions of FEP 2020. The use of effective technical noise mitigation systems is already regularly provided for at the specific project level during the installation of wind turbines in order to safeguard species protection and site protection concerns. The noise abatement concept of the BMU for the North Sea of 2013<sup>2</sup> should be taken into consideration.

Thus, MSFD environmental objective 6 "Oceans that are not adversely affected by anthropogenic energy inputs" and the operational objective UZ6-04 "Development and application of noise mitigation measures for the North and Baltic Seas" are both simultaneously supported.

In order to avoid or mitigate cumulative impacts, an overall coordination of the timing of the construction work should be aimed for. This also includes the reduction to a minimum of shipping traffic for construction and operation and the associated acoustic and visual disturbances through coordinated construction and time planning. However, disproportionate additional expenditure for the expansion of renewable energy should not arise from the requirement for overall time coordination.

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<sup>2</sup> BMU (2013) Concept for the protection of harbour porpoises from noise pollution during the construction of offshore wind farms in the German North Sea (noise abatement concept).

Details were to be regulated within the framework of the sectoral planning of the SDP and the planning approval for offshore wind energy.

### 2.2.3 Cables

The following objectives and principles do not apply to power-carrying submarine cables used for connection within a wind farm (farm internal cabling).

#### Objectives and principles

- |     |  |  |
|-----|--|--|
| (1) | Areas LN1 to LN15 and LO1 to LO8 shown in Figure 5 and Figure 6 in the Appendix are designated as reservation areas for cables.  | Reservation areas cables                             |
| (2) | Submarine cables should be routed in the designated reservation areas. (P)   |  |
| (3) | At the transition to the territorial waters, cables must be routed through the connecting gates GN1 to GN7 and GO1 to GO5 shown in Figure 5 and Figure 6 in the Appendix. Conflicting uses are excluded in these corridors. (O)  | Territorial waters gate                              |
| (4) | If the spatial capacity in the areas of the respective gates mentioned in designation 2.2.3 (3) is exhausted with the routes mentioned, the routing of lines for additionally required lines shall be bundled and carried out in coordination with the coastal state concerned to suitable transition points at the border to the territorial waters. (P)  | Suitable transition points on the territorial waters |
|     | Pipelines crossing the EEZ border should be bundled and routed to gate GN8 to GN19 and GO6 to GO12 (cf Figure 5 and Figure 6) in coordination with the affected bordering state. (P)   | Gates to neighbouring states                         |
| (5) | Lines should be bundled as far as possible. The routing should be chosen parallel to existing structures and installations as far as possible. Traffic separation areas, their continuations, and the Kiel-Baltic Sea Route shall be crossed by pipelines by the shortest route unless parallel routing according to sentence 2 is possible. Crossings of lines among themselves should be avoided as far as possible. Power and data cables shall be provided with a permanent cover necessary to safeguard other uses and functions. (P) | Minimisation of adverse effects                      |
| (6) | When laying cables, overall temporal coordination must be ensured and the most non-disruptive laying procedure possible must be chosen. (P)  | Marine Environment                                   |

#### Justification

##### *Justification of the objectives and principles*

##### *Re (1) and (2) Reservation areas for pipelines:*

The designation of reservation areas for submarine cables ensures that other uses take into account their special protection requirements. Areas far from the coast for the use of offshore wind energy require onshore connections. Furthermore, a further expansion of cross-border undersea cables is foreseeable. The designation supports the securing of corresponding route corridors. The width or dimensioning of the reservation areas is based on forward-looking planning. Among other things, this is intended to ensure that the generated power can be transmitted.

##### *Re (3) Territorial waters gates:*

This designation ensures that the pipelines are routed through certain gates to the territorial waters. The intention is to concentrate the cables as far as possible at these points and bundle them together for further outward routing to land. The exact route and site planning of the grid connections for offshore wind turbines is the subject of the sectoral planning. The same applies to cross-border power cables.

##### *Re (4) Appropriate transition points with the territorial waters:*

The principle ensures flexibility in responding to a possible change in the situation which cannot be foreseen at this stage.

##### *Gates to neighbouring states:*

The pipeline route should be bundled and coordinated with the affected bordering state to gates GN8 to GN19 and GO6 to GO12 at the EEZ border to ensure coherent planning with neighbouring countries.

##### *Re (5) Minimisation of adverse effects:*

In order to minimise impacts on other uses and the need for coordination with each other and with other uses as far as possible in the sense of sustainable spatial development, lines should be bundled as far as possible. Bundling in the sense of parallel routing also reduces fragmentation effects. In accordance with the guideline of economic area use and to minimise interference, cables should be planned to use as little space as possible. The technically possible transmission capacity should be taken into consideration in the planning and used as fully as possible.

### *Crossings:*

The avoidance of crossing constructions is intended to reduce the associated environmental impacts, the threat to fishing vessels and gear, and land consumption. In addition, crossing constructions are more susceptible to faults and therefore require more maintenance.

### *Cover:*

When selecting the cover and the necessary laying depth of power and data cables, special consideration shall be given to the concerns of shipping, national and alliance defence, fishing vessels, and marine environmental protection. With sufficient cover, the potential for conflict with other uses (e.g. the risk of damage from anchor drop or from trawl nets/shear boards) can be reduced, and the exclusion effect for cable routes for fisheries can be mitigated. The coexistence of power and data cables and shipping can succeed only with adequate coverage. The risk of power and data cables being washed free and damaged is reduced; this can significantly reduce the adverse effects on traffic and the environment that may be associated with repair work. In addition, sufficient cover can limit possible temperature increases in the upper sediment areas and reduce the impacts of electromagnetic fields. As a principle of spatial planning, the designation is open to consideration. A balancing criterion here is proportionality with the consequence that the obligation to implement the designation at the project level reaches its limit if the over-coverage requires a disproportionate effort.

### *Crossing of shipping routes:*

Some of the shipping routes in the German EEZ are very busy. In the North Sea, these are mainly designed as traffic separation areas; in the Baltic Sea, only partly. Because of their high importance for international shipping, a conflict of use between cables and shipping should be avoided by minimising the overlap of pipelines with the highly frequented shipping routes. This minimises potential conflicts during laying, operation and possible deconstruction.

### *Re (6) Marine environment:*

When laying pipelines, possible adverse effects on the marine environment should be minimised, among other things by limiting cable-induced sediment warming.

Overall time coordination is to be strived for when laying adjoining submarine cables. The number of disturbing interventions can thus be reduced, and possible cumulative impacts can be avoided or mitigated as far as possible.

To minimise possible negative impacts on the marine environment caused by the laying of cables, the cable laying procedure that is expected to have the least impact and adverse effects on the marine environment should be chosen. Disproportionate additional expenditure for the expansion of renewable energy should not arise from the requirement for overall time coordination.

## **2.2.4 Raw material extraction**

### **Objectives and principles**

- |   |   |
|---|---|
| (1) Areas SKN1, SKN2 and SKO1 shown in Figure 7 and Figure 8 in the Appendix are designated as reservation areas for sand and gravel extraction, and Areas KWN1 to KWN5 shown in Figure 7 in the Appendix are designated as reservation areas for hydrocarbons. | Reservation areas raw material extraction |
|---|---|

### **Justification**

#### *Justification of the objectives and principles*

#### *Re (1) Reservation areas for raw material extraction:*

The spatial designation of the reservation areas serves to secure land for raw material extraction and supports the mineral raw material security in accordance with the Raw Materials Strategy of the Federal Republic of Germany of 2010 and in the 2020 update.

The onshore deposits of sand and gravel are not available in sufficient quantities to meet the needs of industry, especially the construction industry. In Germany, supply bottlenecks are already occurring because raw material extraction is restricted by competing uses such as national and European water, nature, and landscape conservation areas as well as built-up sites, agriculture, and groundwater extraction.

The extraction of sand and gravel at sea is subject to special site conditions that are not comparable with those on land. In addition, the raw materials are limited, location-bound, and non-replicable.

The starting point for the designation of the reservation areas for sand and gravel are the permits BSK 1, OAM III and Adlergrund Nordost according to Section 8 BBergG. Mining permits are issued upon application and entitle the permit holders to explore for and extract the respective mineral resources (Section 8 BBergG).

The location in the nature conservation priority areas "Sylter Außenriff – Östliche Deutsche Bucht" and "Pommersche Bucht – Rönnebank" does not fundamentally exclude raw material extraction from a spatial planning point of view; the exact design will be determined in the mining law procedure.



The basis for the designation of the hydrocarbon reservation areas are the permit fields NE3-0002-01, NE3-0001-01, and NE3-0005-01 according to Section 7 BBergG. The basis for the designation of KWN1 is the German North Sea sector permit licence A6/B4 under Section 8 BBergG.

A location in the Doggerbank nature conservation priority area does not rule out the mining of raw materials from a spatial planning perspective, the exact form of the mining operation will be determined in the mining law procedure.

The spatial designations for the extraction of hydrocarbons support the securing of raw materials in the Federal Republic of Germany.

### 2.2.5 Fisheries and marine aquaculture

#### Objectives and principles

- |     |  |   |
|-----|--|---|
| (1) | Area FiN1 in the area of “Südlicher Schlickgrund” shown in Figure 9 in the Appendix is designated as a reservation area for Norway lobster fishing.  | Reservation area Norway lobster fishing       |
| (2) | Aquaculture facilities should be set up in close proximity to or in combination with other existing or under-construction installations. Maintenance and operation of the installations should be adversely affected as little as possible by the establishment and operation of aquacultures. Environmentally friendly species and forms of aquaculture should be chosen. (P) | Location combination with other installations |

#### Justification

*Justification of the objectives and principles*

*Re (1) Norway lobster fishing reservation area:*

Fishing takes place throughout the EEZ of the North Sea and the Baltic Sea. Data on fishing effort indicate focal areas, but also often a high degree of spatial variability from year to year, depending on target species, fishing gear or vessel origin. Against this background, it does not seem appropriate to define spatial areas to take account of the needs of specific fisheries.

One exception is the fishery for Norway lobster (*Nephrops norvegicus*) in the German North Sea EEZ. In the area of the “Südlicher Schlickgrund”, the sediment provides a particularly suitable habitat for this species; this can be spatially delimited.

With the designation of the reservation area there, Norway lobster fishing is spatially safeguarded; it is given special consideration in the weighing up with other spatially significant plans, measures, and projects.

*Re (2) Site combination with other installations:*

In terms of efficient use of existing space, the aim is to provide a framework for possible projects for the establishment of marine aquaculture. In order to create synergy effects, the proximity to existing installations such as foundations of wind turbines lends itself to the construction of installations for marine aquaculture. These are necessary for the attachment of longlines or baskets. The aim is to ensure the smooth maintenance and operation of the existing installations and to use the most environmentally friendly forms of aquaculture possible in order to avoid or minimise possible environmental damage. As a result of research projects, coastal locations in particular, (e.g. north of Borkum) appear to be especially suitable for marine aquaculture.

### 2.3 Scientific uses (Section 17, paragraph 1, sentence 2, No. 3 ROG) Marine research

#### Objectives and principles

- |     |   |  |
|-----|---|--|
| (1) | Areas FoN1 to FoN3 and FoO1 to FoO4 shown in Figure 10 and Figure 11 in the Appendix are designated as reservation areas for research.  | Reservation areas research                           |
| (2) | Research activities shall be carried out in such a way that the safety and ease of traffic, the development of offshore wind energy, national and alliance defence, and cultural heritage are adversely affected as little as possible. (P) | Minimisation of adverse effects on other uses        |
| (3) | The research is to be carried out taking into consideration sustainability aspects. Best environmental practice in accordance with international conventions on marine protection shall be taken into consideration. (P)                    | Sustainability, protection of the marine environment |

## Justification

### *Justification of the objectives and principles*

#### *Re (1) Reservation areas for research:*

In the designated reservation areas, research is given special emphasis over and above other uses to ensure the continuation of research activities. The areas correspond in size to the “GSBTS Boxes” (North Sea), which are located wholly or partly in the EEZ, and the updated “BALT-BOX” areas (Baltic Sea) of the Thünen Institute in which large-scale investigations on abundances and the composition of the fish fauna near the seabed are being carried out in long-term research series. The results of the trawl surveys carried out are included in the annual ICES stock survey, but also in the monitoring for the MSFD. The continuation of these research activities could be jeopardised by incompatible uses, in particular by structural installations.

#### *Re (2) Minimisation of adverse effects on other uses:*

In principle, research in the EEZ enjoys the freedom guaranteed under Art. 238 UNCLOS, however, under the premise that other legitimate uses must not be unjustifiably adversely affected (Art. 240 UNCLOS). This corresponds to the guiding principle of sustainable spatial development and is therefore supported by this principle.

With regard to maritime and air transport, research activities should be carried out in such a way that the safety and ease of traffic are adversely affected as little as possible.

The military interests and the functional capability of the Federal Armed Forces are to be safeguarded. Certain investigations in the context of scientific marine research may have adverse impacts on national and alliance defence by collecting sensitive data. Due to the special physical properties of the planning area, these impacts are also of relevance to spatial planning. The principle therefore serves to protect national and alliance defence against adverse effects. It has already been specified in some cases in sectoral terms (cf Section 1, paragraph 2, number 4 in conjunction with Section 6 paragraph 1 and Section 7, number 2 SeeAnIG.

The early involvement of the authorities responsible for heritage management and archaeology in the context of research projects in the EEZ is intended to ensure that the technical classification and the appropriate assessment and preservation of cultural assets can be carried out in good time and that any existing findings of the authorities can be taken into consideration in the preparation of research projects. The principle is intended to ensure that – in consultation with the specialist authorities – appropriate measures are taken at an early stage in order to avoid negative impacts as far as possible.

For the rest, reference is made to the designation justification 2.2.1 (3).

#### *Re (3) Sustainability, protection of the marine environment:*

In the specific design of marine scientific research, adverse impacts on the marine environment and in particular on the natural functions of the area shall be avoided as far as possible. Best environmental practice according to the OSPAR and Helsinki Conventions as well as other relevant international conventions and the state of the art in science and technology shall be taken into consideration.

## **2.4 Protection and improvement of the marine environment (Section 17, paragraph 1, sentence 2, No. 4 ROG) Nature conservation/seascape/open space**

### **Objectives and principles**

- (1) The national marine protected areas in the EEZ “Borkum Riffgrund”<sup>3</sup>, “Doggerbank”<sup>4</sup>, and “Sylter Außenriff – Östliche Deutsche Bucht”<sup>5</sup> in the North Sea as well as “Fehmarnbelt”<sup>6</sup>, “Kadetrinne”<sup>7</sup> and “Pommersche Bucht – Rönnebank”<sup>8</sup> in the Baltic Sea as shown in Figure 12 and Figure 13 in the Appendix are designated as nature conservation priority areas in accordance with their conservation purposes. Sentence 1 does not apply to the area of the northern approach and the outer roadstead of the ports of Szczecin/Stettin and Świnoujście/Swinemünde shown on the map.

Priority areas  
nature  
conservation

The area shown in Figure 14 in the Appendix is identified as a priority area for divers.

Priority area for  
divers

In the priority areas for nature conservation and divers, raw material extraction and military uses are not ruled out from a spatial planning perspective where reservation areas for raw material extraction and defence are defined in Figure 7, Figure 18, and Figure 19. (O)

<sup>3</sup> Ordinance on the designation of the “Borkum Riffgrund” nature conservation area of 22 September 2017 (BGBl. I p. 3395).

<sup>4</sup> Ordinance on the designation of the “Doggerbank” nature conservation area of 22 September 2017 (BGBl. I p. 3400).

<sup>5</sup> Ordinance on the designation of the “Sylter Außenriff – Östliche Deutsche Bucht” nature conservation area of 22 September 2017 (BGBl. I p. 3423).

<sup>6</sup> Ordinance on the designation of the “Fehmarnbelt” nature conservation area of 22 September 2017 (BGBl. I p. 3405).

<sup>7</sup> Ordinance on the designation of the “Kadetrinne” nature conservation area of 22 September 2017 (BGBl. I p. 3410).

<sup>8</sup> Ordinance on the designation of the “Pommersche Bucht – Rönnebank” nature conservation area of 22 September 2017 (BGBl. I p. 3415).

When overlapping priority areas for nature conservation or divers with priority areas for shipping, shipping enjoys priority within the framework of the international legal requirements of UNCLOS. (O)

- |     |  |   |
|-----|--|---|
| (2) | Areas StN1 to StN3 shown in Figure 14 in the Appendix are designated as reservation areas for divers.  | Reservation areas<br>divers                                     |
| (3) | Military use should adversely affect the conservation purpose of the priority and reservation areas for divers as little as possible. For the period from 1 March to 15 May of a given year, it applies that in the priority and reservation areas, divers should not be adversely affected by sand and gravel extraction and that the Federal Armed Forces authorities and the competent nature conservation authority should come to an agreement regarding military use. (P)  | Multi-use priority<br>area for divers                           |
| (4) | The main distribution area of harbour porpoises in summer in the EEZ of the North Sea identified in the 2013 noise abatement concept of the BMU (cf Figure 15) is designated as a temporary reservation area for harbour porpoises (May to August).  | Temporary seasonal<br>reservation area for<br>harbour porpoises |
| (5) | On the area shown in Figure 16, the construction of installations above the water surface is excluded until 31 December 2022. (O)  | Temporary<br>exclusion of<br>installations                      |
| (6) | The areas of the bird migration corridors “Fehmarn-Lolland” and “Rügen-Skåne” shown in Figure 17 in the Appendix can, in principle, be used by wind energy provided they are designated as priority or reservation areas for wind energy. During periods of mass migration events, wind turbines shall not be operated in bird migration corridors if other measures are not sufficient to exclude a proven significantly increased risk of collision of birds with wind turbines. Under the same conditions, construction and maintenance work should not take place. (P)   | Bird migration<br>corridors                                     |
| (7) | The EEZ should be permanently safeguarded and developed as a natural area for the conservation of biological diversity, in consideration of its typical natural features, ecological relations and interrelationships. Natural assets should be used sparingly and carefully in accordance with the guiding principle of sustainability in spatial planning. Adverse effects on the natural balance are to be avoided and mitigated as far as possible taking into consideration the objectives of the BNatSchG, the precautionary principle and the ecosystem approach. (P) | Preservation of the<br>EEZ as a natural<br>area                 |
| (8) | Barrier effects in the sea to migratory species should be avoided. (P)   | Migratory species   |
| (9) | The marine landscape in its natural uniqueness and its characteristic large-scale open character should be preserved. It is to be developed as an ecologically intact open space, and its importance for functioning sea beds, the water balance, flora and fauna (biodiversity), and the climate is to be safeguarded. (P)  | Safeguarding and<br>preserving the<br>marine landscape          |

## Justification

### *Preliminary remarks*

In contrast to the other types of use, marine nature conservation is not a use in the narrower sense, but rather a fundamental spatial function covering the entire area; this makes clear the special importance of marine nature and the marine ecosystem and which must be considered when other uses lay claim to it. The environmental objectives of relevant international agreements and directives as well as national regulations are taken as a basis. The European legal framework for marine environmental protection and nature conservation, in particular the Maritime Spatial Planning Directive and the Marine Strategy Framework Directive, is explained in more detail in the environmental reports. The cross-border character of marine nature is also to be emphasised. Because the landscape management, which is customary on land, is lacking in the EEZ, maritime spatial planning is particularly responsible for nature conservation.

### *Justification of the objectives and principles*

#### *Re (1) Priority areas for nature conservation and priority area for divers:*

The designation of nature conservation areas as priority areas for nature conservation is done to support the conservation purposes of marine nature conservation areas and to safeguard them through spatial planning. The Borkum Riffgrund, Doggerbank, Sylter Außenriff – Östliche Deutsche Bucht, Fehmarnbelt, Kadetrinne, and Pommersche Bucht – Rönnebank nature conservation areas are of outstanding importance for nature conservation, particularly for the protection of marine mammals, seabirds, and FFH habitat types.

The target of climate neutrality in Germany, which has been brought forward to 2045, will require a significantly increased expansion of renewable energies. Therefore, further sites for offshore wind energy use are also needed in the EEZ. Doggerbank is well suited for wind energy use and is expected to deliver an additional potential of 4 to 6 GW if this is possible in a nature-compatible manner. The federal government will therefore commission studies on the use of wind power on the Doggerbank in line with nature conservation goals.

To this end, the federal ministries responsible for the environment and energy will submit a report to the cabinet by 31 December 2024. For the other nature conservation areas, spatial planning has determined that wind energy use is generally not compatible with the protective purpose of the priority areas for nature conservation. This assessment is also found in the sectoral guidelines: In accordance with WindSeeG, designations of areas and sites for offshore wind energy in the site development plan are not permitted if they are located in a protected area designated according to Section 57 BNatSchG.

However, this does not affect offshore wind turbines already approved in designated nature conservation areas for the term already approved.

The main concentration area of the diver (*Gavia stellata*, *Gavia arctica*) – delineated in the “Position paper of the Federal Ministry for the Environment on the cumulative assessment of diver habitat loss as a result of offshore wind farms” (2009) – is of outstanding conservation importance for the protection of the diver species group, which is sensitive to disturbance. The main concentration area of divers underlying the priority area takes into consideration the period of particular importance for the species: spring. In particular, allowance must be made for the fact that wind turbines will lead to avoidance effects and permanent habitat loss. The designation of the priority area reserved for divers also supports the MSFD environmental objective 3 “Seas not adversely affected by the impacts of human activities on marine species and habitats”.

In the priority areas for nature conservation and the priority area for divers, uses that are incompatible with nature conservation or the conservation purpose of the priority area for divers are excluded. This serves the conservation purposes of the areas, particularly with regard to potential significant impacts on protected habitat types, species, or biotopes. As a matter of principle, the determination of which uses are excluded is left to the assessment of individual cases at project level.

In some areas, priority areas for shipping overlap with priority areas for nature conservation and the priority area for divers. According to the provisions of UNCLOS applicable in accordance with Section 1, paragraph 4 ROG, a restriction on shipping in the EEZ is possible only under the conditions laid down in UNCLOS. Section 57, paragraph 3, No. 1 BNatSchG stipulates that restrictions on shipping are not permitted in nature conservation areas.

In those areas in which the nature conservation priority area overlaps with reservation areas for sand and gravel extraction, raw material extraction in the existing licence areas will continue to be permissible from a spatial planning perspective, since mining conditions prevail here which cannot be found in comparable circumstances on land. Compliance with the requirements of the applicable nature conservation area regulations remains unaffected.

In areas where priority areas for nature conservation overlap with reservation areas for the extraction of hydrocarbons, the extraction of raw materials is compatible with the respective priority area for nature conservation from a spatial planning perspective. Compliance with the requirements of the applicable nature reserve regulations remains unaffected.

The designation of the nature conservation priority areas also supports MSFD environmental objective 3 “Seas not adversely affected by the impacts of human activities on marine species and habitats”.

*Re (2) Reservation area for divers:*

Areas StN1 to StN3 shown in Figure 14 in the Appendix are designated as reservation areas for divers. The combined approach of priority and reservation areas for divers ensures the priority protection of the diver in large parts of the area, safeguards the special importance of the priority area for the diver, and takes into consideration the sustainable use of reservation areas EN4 and EN5 through the expansion and use of offshore wind energy. The details are regulated in the site development plan.

*Re (3) Multiple use priority area for divers:*

The priority area for divers overlaps to a large extent with reservation areas for defence. In order to safeguard military interests and the functional capability of the Federal Armed Forces, the Federal Armed Forces authorities and the respective nature conservation authority shall agree on the use of the area from 1 March to 15 May in which the occurrence of divers, which are sensitive to disturbance, is particularly high.

During this period, there should also be no adverse effects from sand and gravel extraction. The final decision on the permissibility of raw material extraction is taken at the project level.

*Re (4) Temporary seasonal reservation area for harbour porpoises:*

The main concentration area of harbour porpoises in the German EEZ of the North Sea from May to August as defined in the noise abatement concept of the Federal Environment Ministry (2013) is of outstanding importance for the protection of harbour porpoises from a nature conservation perspective. Harbour porpoises use the area intensively during the summer months.

The spatial planning designation is intended to ensure that sufficient suitable habitats are available for harbour porpoises. The designation of the area is limited to the season in which harbour porpoises are sensitive to disturbances in the area.

In order to avoid and mitigate possible significant cumulative impacts on the harbour porpoise population and to comply with species protection legislation, significant adverse effects on this important harbour porpoise habitat in the EEZ of the North Sea should be avoided.

When constructing wind turbines, special attention should be paid at licensing level to the effectiveness of preventative and mitigation measures, particularly during the sensitive season. This primarily concerns impulse-type sound discharges.

The designation of a harbour porpoise reservation area also supports the MSFD environmental objective 3 “Seas not adversely affected by the impacts of human activities on marine species and habitats”.

*Re (5) Temporary exclusion of installations:*

Keeping the area free serves to ensure the implementation of measures to safeguard the coherence of the Natura 2000 network (coherence measures) with regard to adverse effects caused by existing wind turbines in the priority and reservation areas for divers. In order to enable nature conservation planning to develop its own compensatory regulation in this respect, the temporary designation 2.4 (5) is made as spatial planning support; through this, the area in question is temporarily protected from conflicting uses above the water surface. This is in line with the guiding principle of sustainable spatial development: Keeping the area free is part of the overall spatial concept underlying the spatial plan, which considers both offshore wind energy as part of climate protection and sites for nature conservation to be necessary with regard to the sustainable development of marine space.

*Re (6) Bird migration corridors:*

The designation of the bird migration corridors “Fehmarn-Lolland” and “Rügen-Skåne” takes into consideration the special importance of bird migration across Fehmarnbelt, the “bird flight line”, and across Rügen to Sweden.

The principle ensures targeted protection of bird migration as an essential component of the marine environment by appropriately resolving the conflict with the use of wind energy. It thus follows the precautionary approach and the ecosystem approach.

The need for preventative and mitigation measures – this could be the shut-down during mass migration events – in the bird migration corridors “Fehmarn-Lolland” and “Rügen-Skåne” supports MSFD environmental objective 3 “Seas not adversely affected by the impacts of human activities on marine species and habitats” and contributes to the implementation of operational objective UZ3-02 “Measures to protect migratory species in the marine environment”.

There is a need for clear and operational guidelines for measuring and shut-down systems and for the presence of a mass migration event during spring and autumn migration. As soon as mass migration takes place in the vicinity of offshore wind turbines according to these measurement systems and specifications, measures to protect bird migration, in particular those that exclude the collision of birds with wind turbines if there is an increased risk of collision, shall be initiated without delay.

*Re (7) Preservation of the EEZ as a natural area:*

Section 2 subsection 2 number 6 of the ROG formulates principles of spatial planning which are reflected in this principle, adapted to the conditions in the EEZ:

- Nature and landscape, including marine areas, are to be permanently protected, maintained, developed and – where necessary, possible, and appropriate – restored.
- Natural resources should be used sparingly and carefully.
- In the case of permanently unused sites, the soil should be maintained or restored to its original state.

In addition, the conservation of biological diversity and the characteristic habitats and functions that determine it is just as much a part of sustainable planning in the sense of the principles of spatial planning under Section 2, paragraph 2, number 6 ROG and of the ecosystem approach required with its integrated approach as is the consideration of negative cumulative impacts, interrelationships, and exchange relationships.

*Re (8) Migratory species:*

According to Section 2, paragraph 2, number 2 ROG, open space must be protected; a large-scale, ecologically effective integrated open space system must be created.

The permeability of the marine space for large-scale migratory species is necessary in order to reach and use areas that are functionally important for them; this applies in particular to the western part of the German EEZ in the Baltic Sea up to longitude 13.5° East. The connection between functionally relevant areas should therefore be maintained. Area designations in the marine environment ensure such passability.



The principle also supports the environmental objective 3.4 MSFD<sup>9</sup> “Human structures and uses do not threaten the natural dispersal (including migration) of species for which ecologically permeable migration corridors constitute essential habitats” and the measure M 3.5 “Ensure connectivity of the nature conservation area with functional areas of its protected assets” of the North Sea Management Plans<sup>10</sup> to ensure connectivity of the nature reserve with functional areas of its protected assets.

*Re (9) Safeguarding and preserving the marine landscape:*

According to Section 2, paragraph 2, number 2 ROG, open space must be protected; a large-scale, ecologically effective integrated open space system must be created. Further fragmentation of the open landscape is to be avoided as far as possible; land use in the open space is to be limited.

The planning principle which puts this into practice is essentially aimed at preserving the character of the North Sea EEZ as a large open space.

Against this background, large parts of the EEZ are kept free of area designations for uses that may affect the open space. In addition to the priority areas for shipping, the priority areas for nature conservation also contribute to safeguarding open space because uses incompatible with nature conservation are excluded in them. Economic uses should be carried out in a way that saves as much land as possible (cf Principle 2.2.1 (1) Sparing use of space).

## 2.5 Security aspects; national and alliance defence

### Objectives and principles

- (1) The areas shown in Figure 18 and Figure 19 in the Appendix are designated as reservation areas for defence according to their military purposes. Reservation areas  
defence
- These areas are in the North Sea:
- North Sea artillery range,
  - Torpedo firing range NW-Helgoland,
  - Submarine exercise areas (Alfa, Bravo, Charlie, Delta),
  - Weser submarine exercise area,
  - (Air) hazard areas above sea level (ED-D 44, ED-D 46, ED-D 41 A);
- in the Baltic Sea:
- Western Baltic Artillery Shooting Range,
  - Artillery firing range Pommersche Bucht,
  - Trolle submarine exercise area,
  - Walkyria submarine exercise area,
  - NATO submarine exercise areas (Bravo 2, Bravo 3, Bravo 4),
  - Artillery shooting range West of Bornholm,
- Military (air) hazard areas above sea level (ED-D 47 A, ED-D 47 B, ES-D 140, ED-D 19 A, ED-D 19 B).
- (2) Defence and civil protection should be carried out with sustainability in mind; they should adversely affect cultural heritage as little as possible. (P) Sustainability,  
cultural heritage

### Justification

*Justification of the objectives and principles*

*Re (1) Reservation areas for defence:*

Reservation areas for defence are necessary to ensure the functional capability of the Federal Armed Forces.

Under Section 2, paragraph 2, number 7 ROG, the spatial requirements of defence and civil protection must be taken into account. According to Section 17 Subsection 1 ROG, security aspects and thus defence concerns must be taken into account in spatial planning designations. This is to ensure that the Federal Armed Forces has sufficient spatial and legal facilities for military purposes (e.g. for training, exercise, or mission preparation) that are required in the context of national and alliance defence as well as other mandated missions.

In the construction and operation of offshore wind turbines, platforms, and submarine cable systems, the military interests and the functional capability of the Federal Armed Forces are to be safeguarded. Defence concerns should be taken into consideration accordingly when selecting locations for offshore infrastructure and the routing of cables.

<sup>9</sup> MSFD Programme of Measures for the Marine Protection of the German North Sea and Baltic Sea, Report in accordance with Section 45h, paragraph 1 of the Federal Water Act adopted by the North Sea and Baltic Sea Federal/State Committee (BLANO) on 30 March 2016, published by BMUB, 2016.

<sup>10</sup> Management plans for the nature conservation areas “Sylter Außenriff – Östliche Deutsche Bucht”, “Borkum Riffgrund”, and “Doggerbank”, each measure 3.5: Ensure connectivity of the nature conservation area with functional areas of its protected assets, BAnz AT 13 May 2020 B11.

A distinction must be made between military training areas where military activities take place underwater, on the water surface or in airspace.

The use of military areas for exercise purposes shall be in accordance with the concerns of safety and efficiency of shipping.

The designated submarine exercise areas are referred to as “safe bottoming areas” in which submarine bottoming is carried out. In the interests of sustainable spatial development, in particular the efficient co-use of space and the associated requirement to minimise mutual adverse effects, no pipelines should be laid in the submarine search areas in the Baltic Sea Bravo 2, Bravo 3, and Bravo 4 in order to avoid damage to the pipeline infrastructure or the submarines. Furthermore, it should be avoided as far as possible that reconnaissance of the underwater vehicles located in these exercise areas can take place through the line infrastructure.

*Re (2) Sustainability, cultural heritage:*

Certain national and alliance defence activities are, in principle, likely to locate or damage cultural assets in the planning area. Therefore, when designing the activities, efforts should be made to minimise possible adverse effects and to safeguard any cultural assets found (see also the justification for designation 2.2.1 (3) Cultural heritage).

## **2.6 Other issues to be considered**

### **2.6.1 Air transport**

#### **Objectives and principles**

- (1) The spatial requirements of civil air traffic shall be taken into account by avoiding as far as possible any adverse effects on its safety and ease by commercial and scientific uses. (P) Air traffic

#### **Justification**

*Justification of the objectives and principles*

*Re (1) Air transport:*

On one hand, installations in the EEZ, in particular wind turbines, act as obstacles to aviation; on the other hand, additional aviation-specific requirements arise, in particular because of air traffic that results from OWF.

The requirements for safe air traffic, including SAR air traffic, should therefore be taken into consideration when planning and implementing commercial and scientific activities.

### **2.6.2 Recreation**

#### **Objectives and principles**

- (1) The spatial requirements of recreational and water-borne traffic should be taken into account by avoiding any adverse effects resulting from economic and scientific uses as far as possible. (P) Recreational and water sports traffic

#### **Justification**

*Preliminary remarks*

The rules of UNCLOS apply to private and commercial tourist traffic in the EEZ. Where, for reasons of installation safety, the navigability of areas is restricted within the scope of the offshore wind farm's licence, exemptions, which are also applicable to recreational and water sports traffic, can only be regulated as general rulings of the Federal Waterways and Shipping Administration.

*Justification of the objectives and principles*

*Re (1) Recreational and water sports traffic:*

Recreational use in the EEZ is generally associated with the use of recreational and sports boats. Economic and scientific uses which may lead to a restriction of use by recreational and sports boats should take this into consideration in planning and implementation.

The installation of wind turbines in the designated areas for wind energy will reduce the space available for general navigation and, as a consequence, vessel traffic will be concentrated in particular in the routes between the different areas reserved for this purpose. In order to enable smaller vehicles under 24 m in length to pass through wind farm areas and to avoid detours via busy shipping routes, requirements for the interests of recreational and water sports traffic (e.g. safe passage) should be taken into consideration in the planning of wind farms.

### **2.6.3 Informational representations of the fixed link across the Fehmarnbelt**

Figure 20 shows the fixed link across the Fehmarnbelt for information purposes.

### *Explanation*

The fixed link across the Fehmarnbelt is a transport link of international importance within the meaning of Section 2, paragraph 2, No. 8 ROG and constitutes a core network project according to Appendix I Item 5.3 Railway Link, Item 5.4 Road Link in accordance with Regulation (EU) No. 1315/2013 of the European Parliament and of the Council. It is based on the State Treaty of 3 September 2008 between the Federal Republic of Germany and the Kingdom of Denmark on a fixed link across the Fehmarnbelt<sup>11</sup>. The plan-approved project has been under construction since 2020/2021 and should therefore be taken into consideration in spatially significant commercial, scientific, and other planning, uses and measures in the EEZ.

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<sup>11</sup> cf also: Act on the Treaty of 3 September 2008 between the Federal Republic of Germany and the Kingdom of Denmark on a fixed link across the Fehmarnbelt of 17 July 2009, BGBl. 2009 II p. 799, 800.



3 Appendix

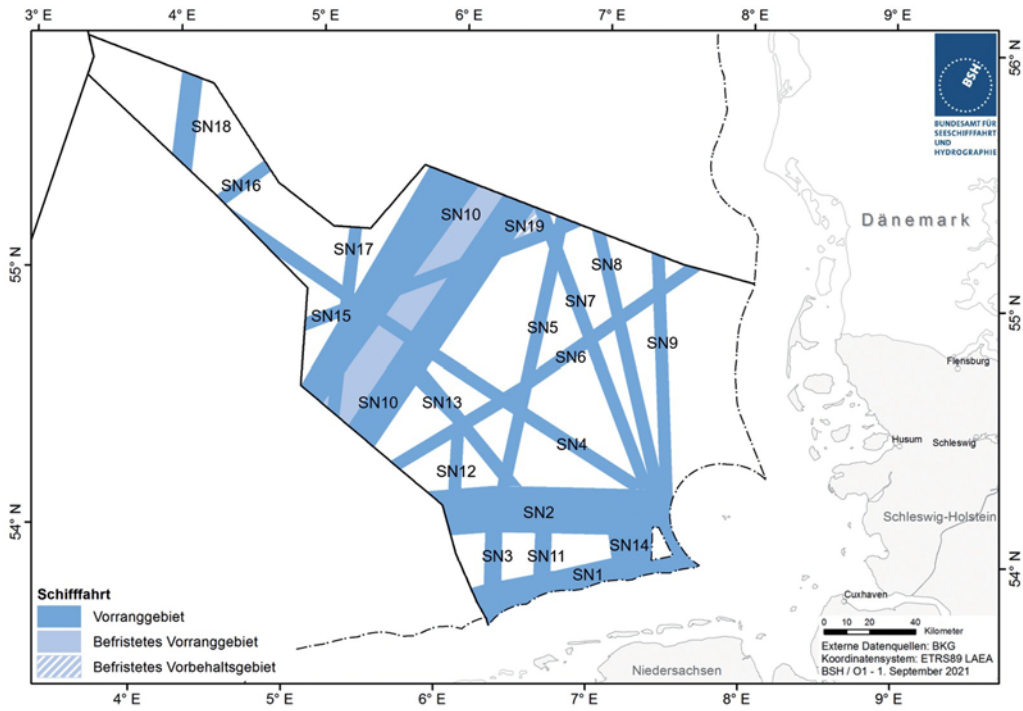


Figure 1: Designations for shipping in the North Sea.

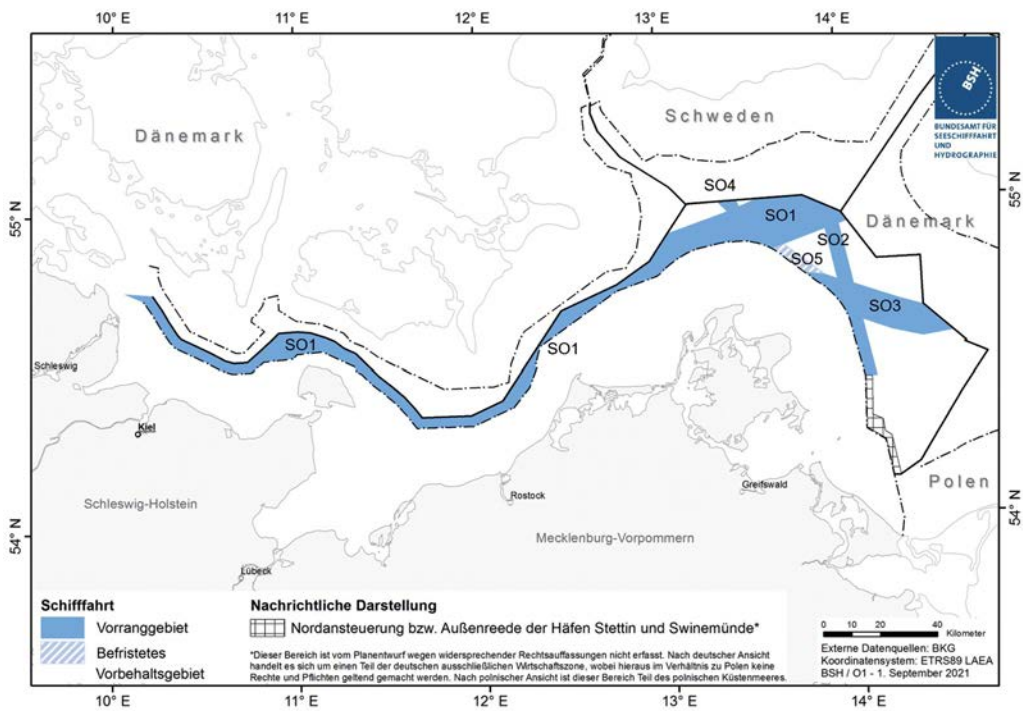


Figure 2: Designations for shipping in the Baltic Sea.

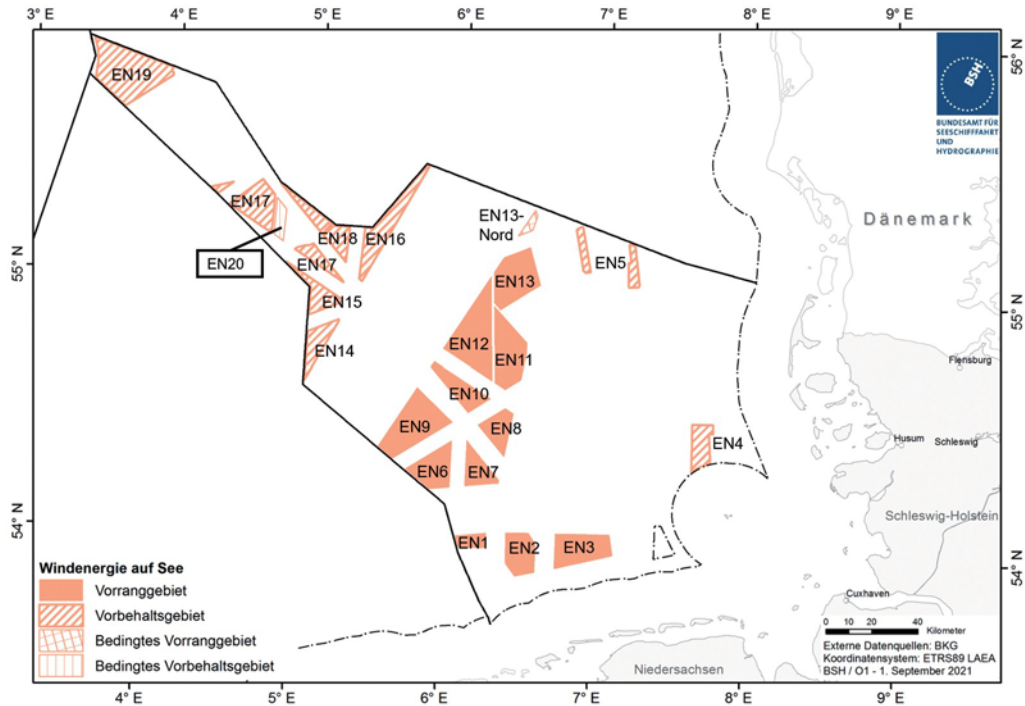


Figure 3: Designations for offshore wind energy in the North Sea.

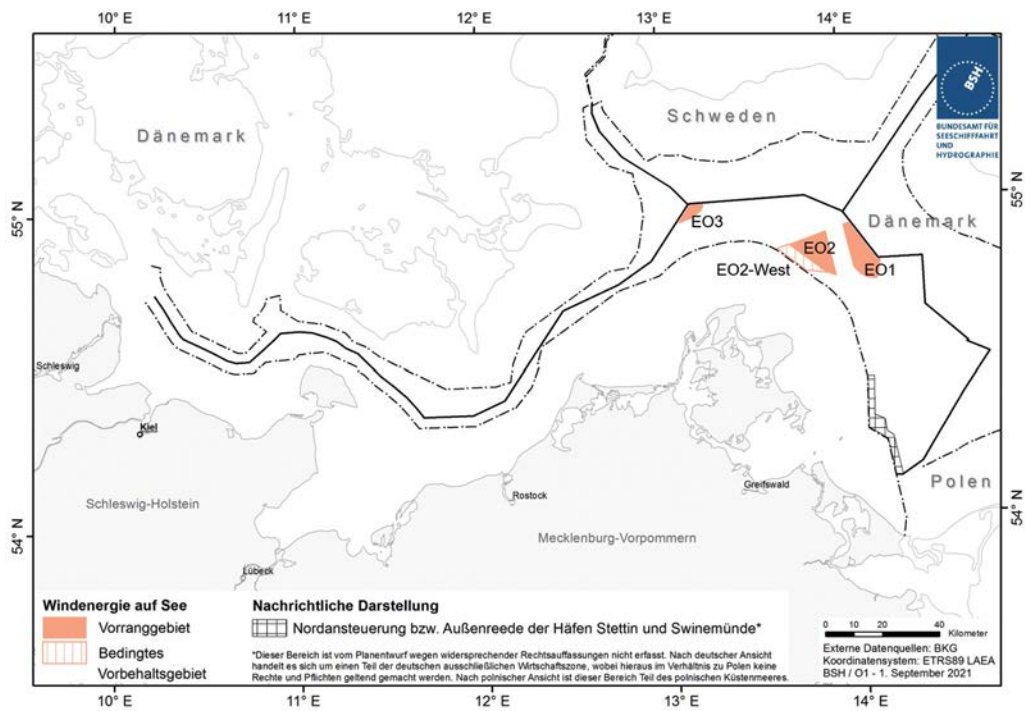


Figure 4: Designations for offshore wind energy in the Baltic Sea.

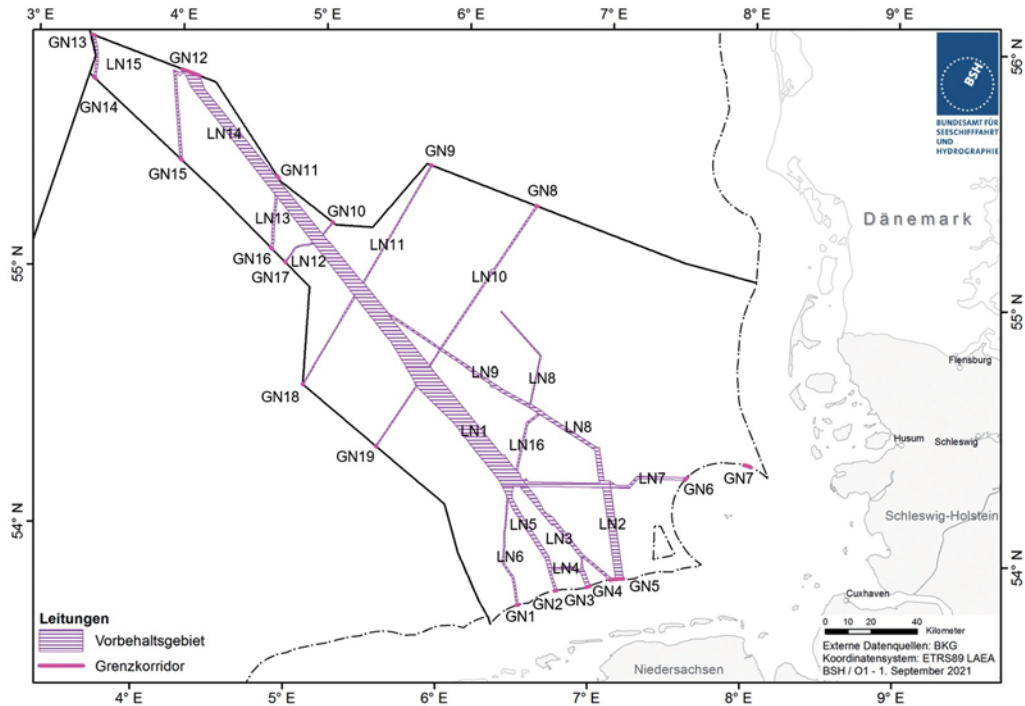


Figure 5: Designations for submarine cables and connecting gates in the North Sea.

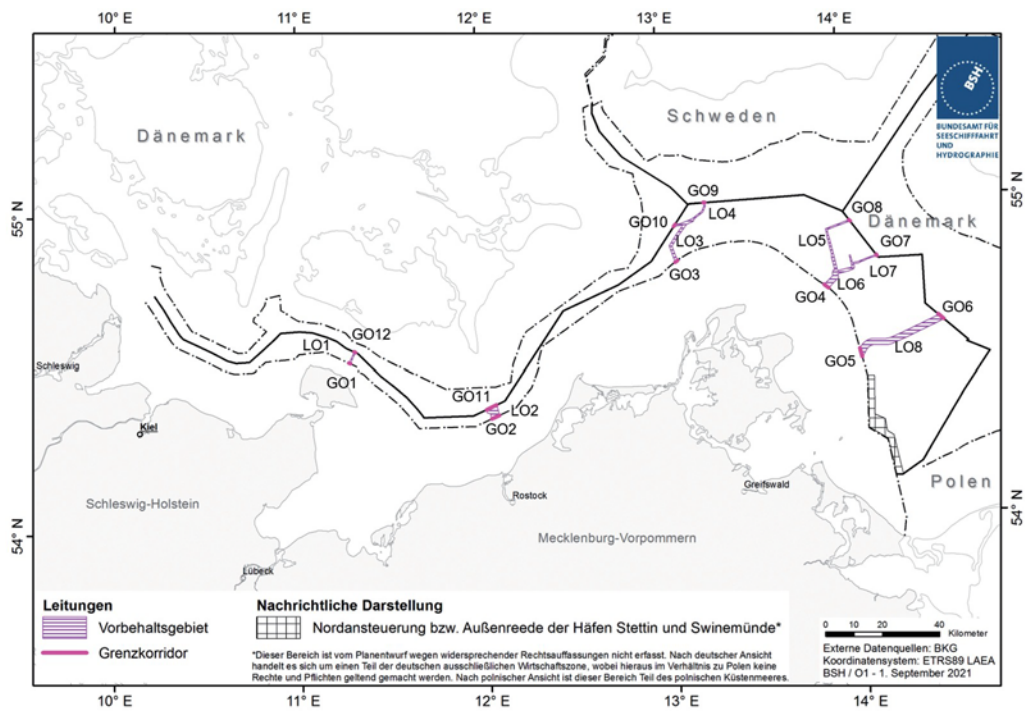


Figure 6: Designations for submarine cables and connecting gates in the Baltic Sea.

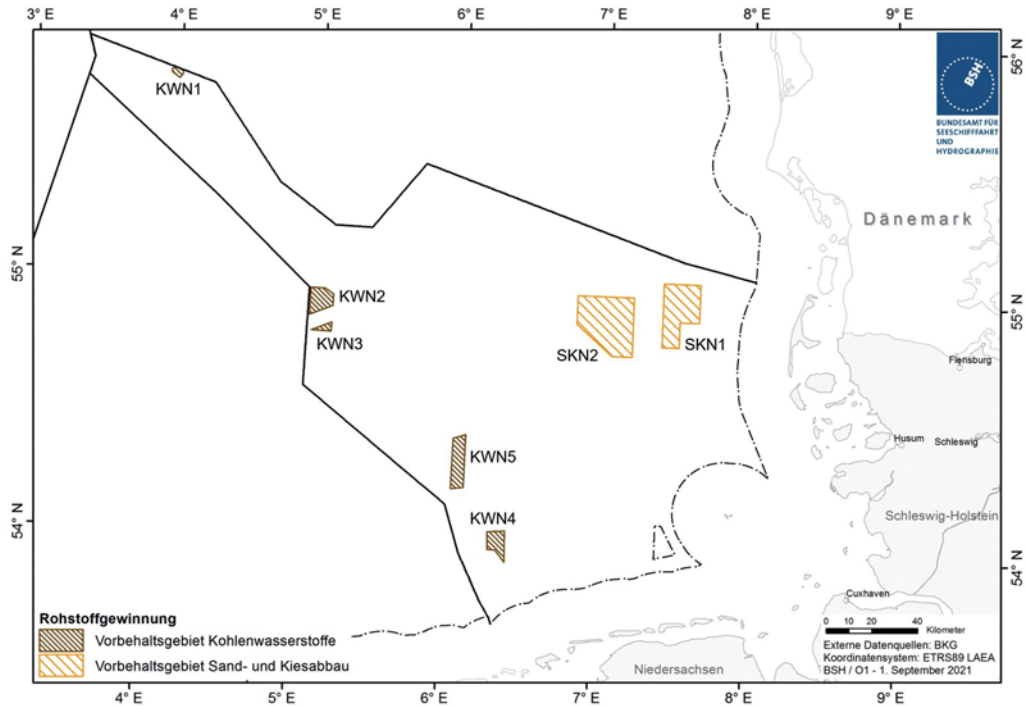


Figure 7: Designations for raw material extraction in the North Sea.

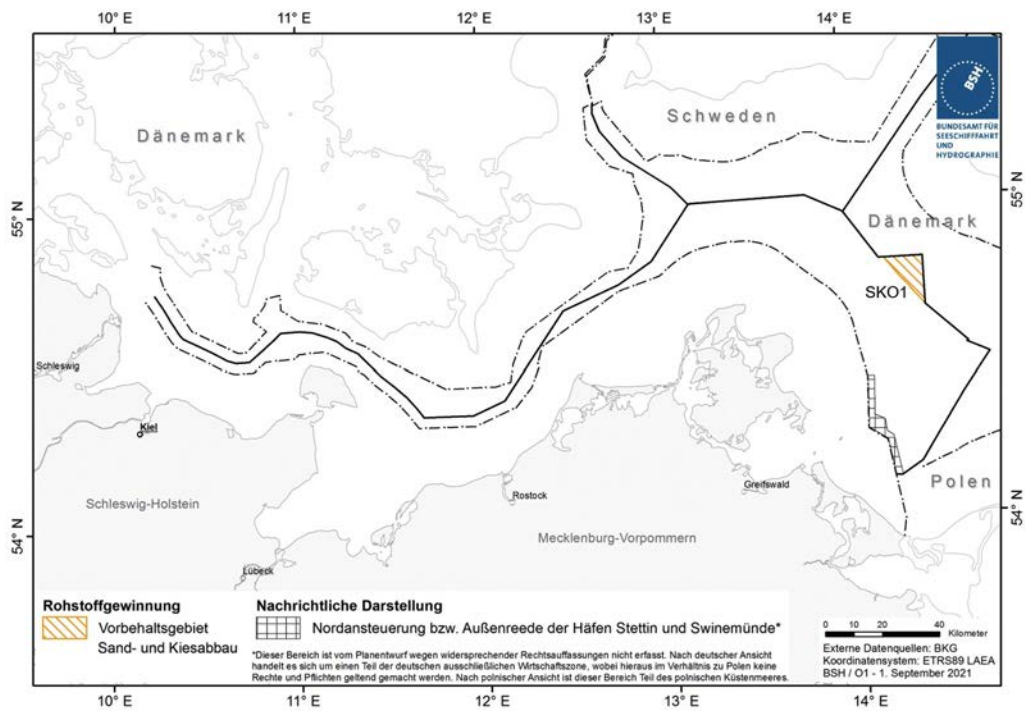


Figure 8: Designation for raw material extraction in the Baltic Sea.

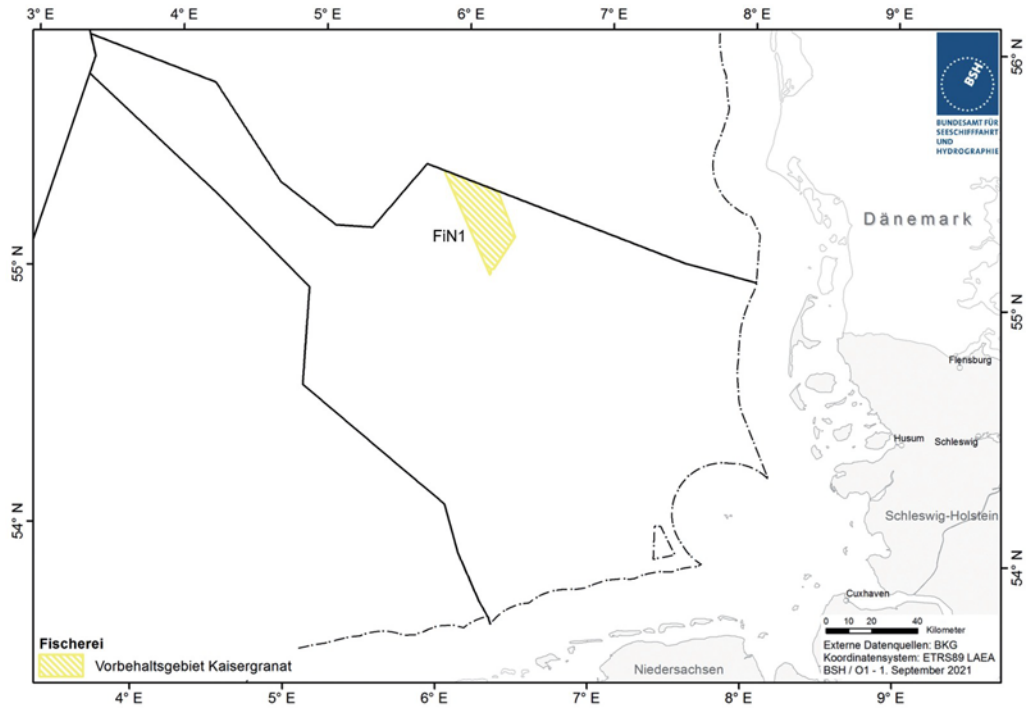


Figure 9: Designations for Norway lobster fisheries in the North Sea.

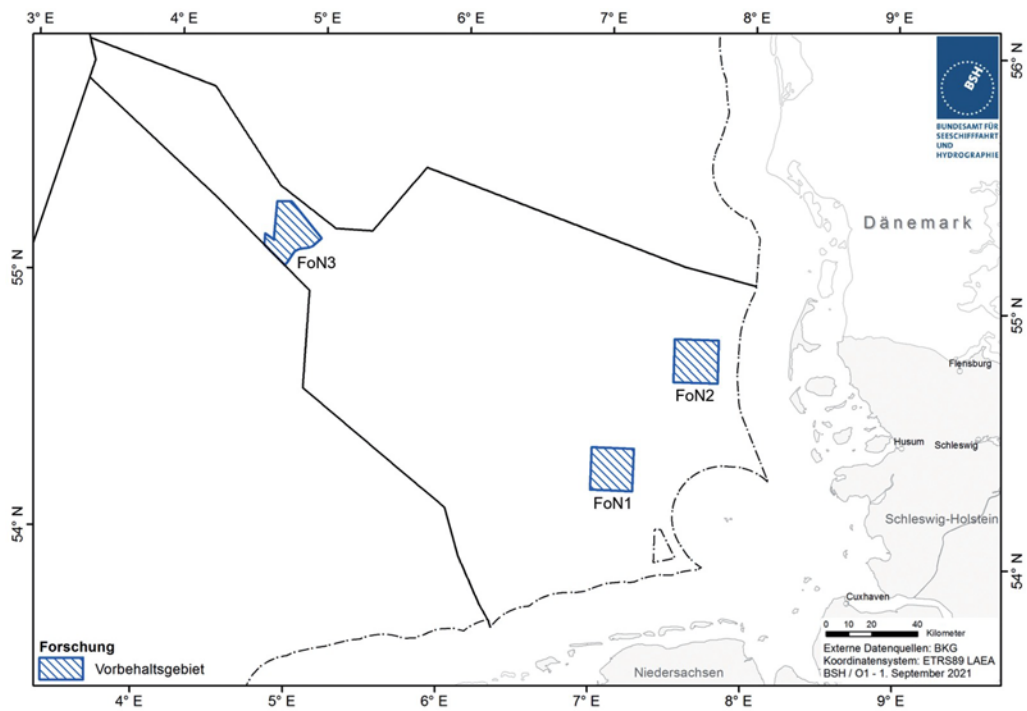


Figure 10: Designations for research in the North Sea.



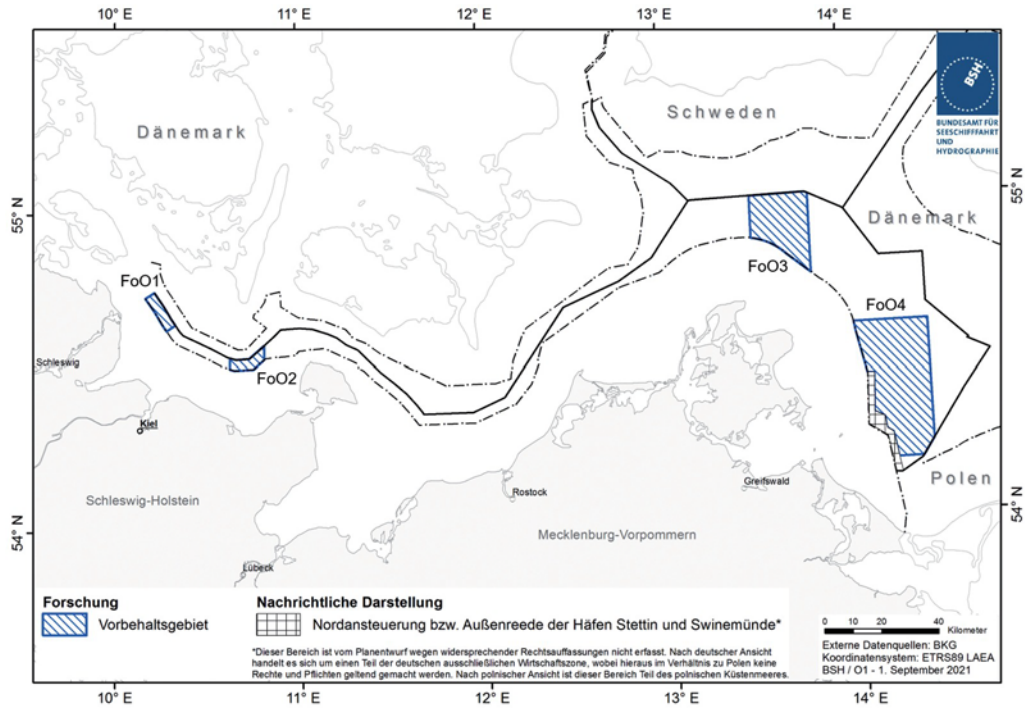


Figure 11: Designations for research in the Baltic Sea.

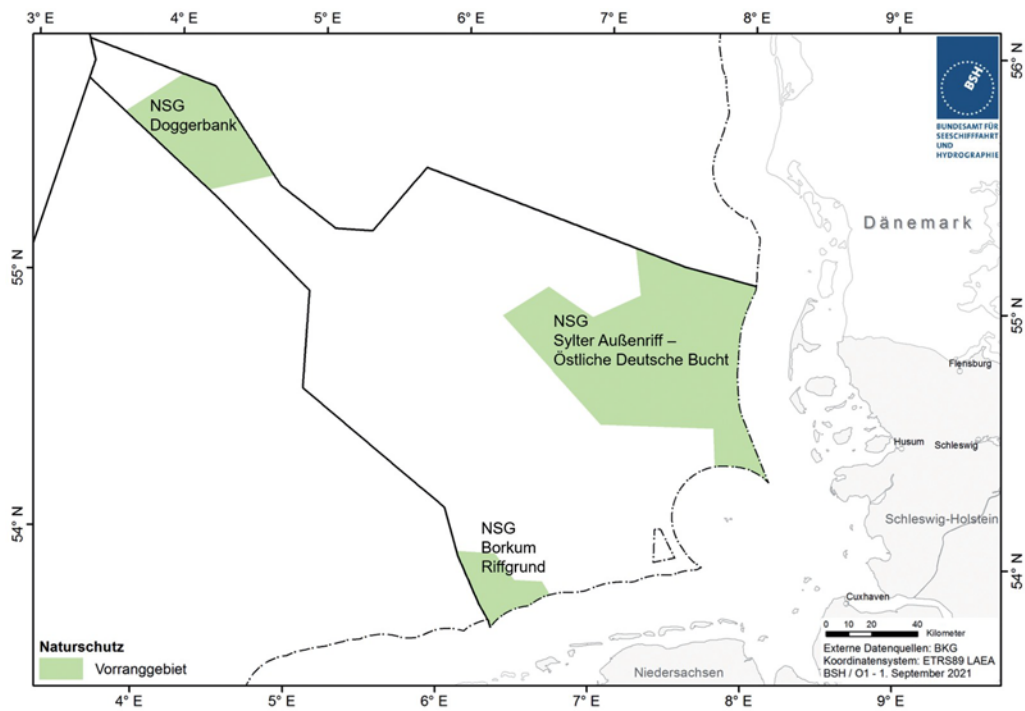


Figure 12: Designations for nature conservation in the North Sea.

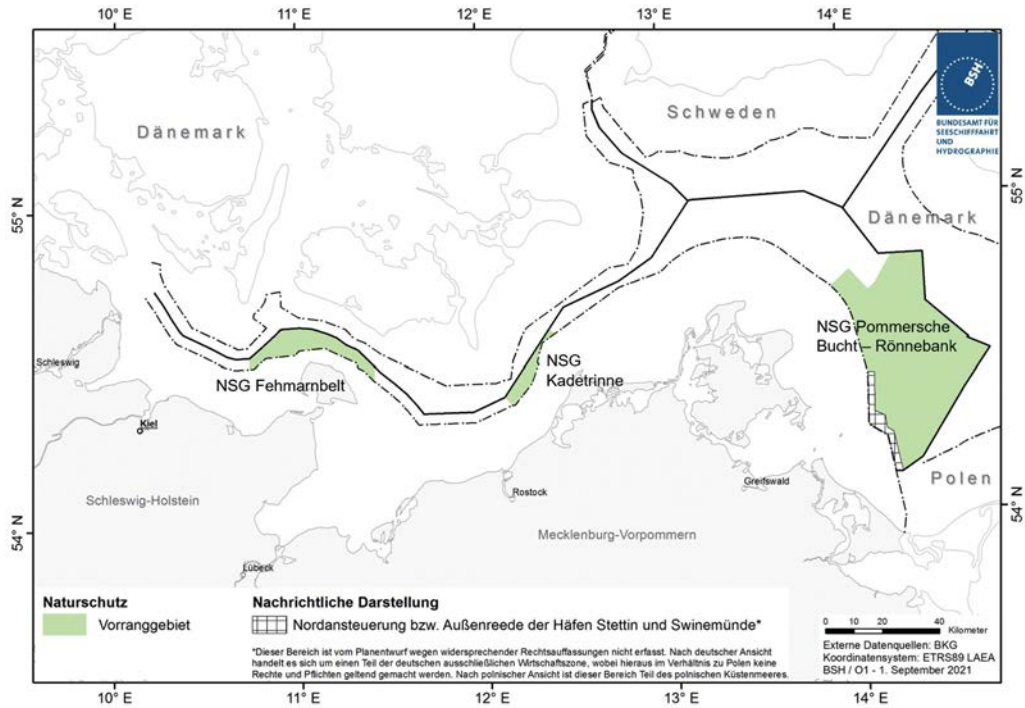


Figure 13: Designations for nature conservation in the Baltic Sea.

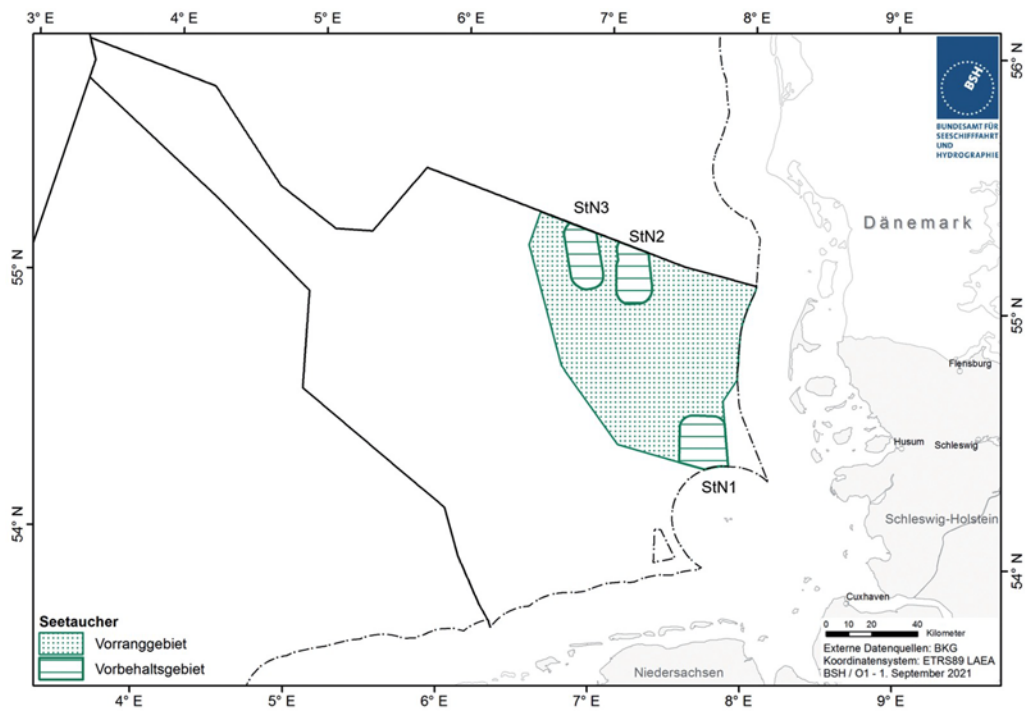


Figure 14: Designations for divers in the North Sea.

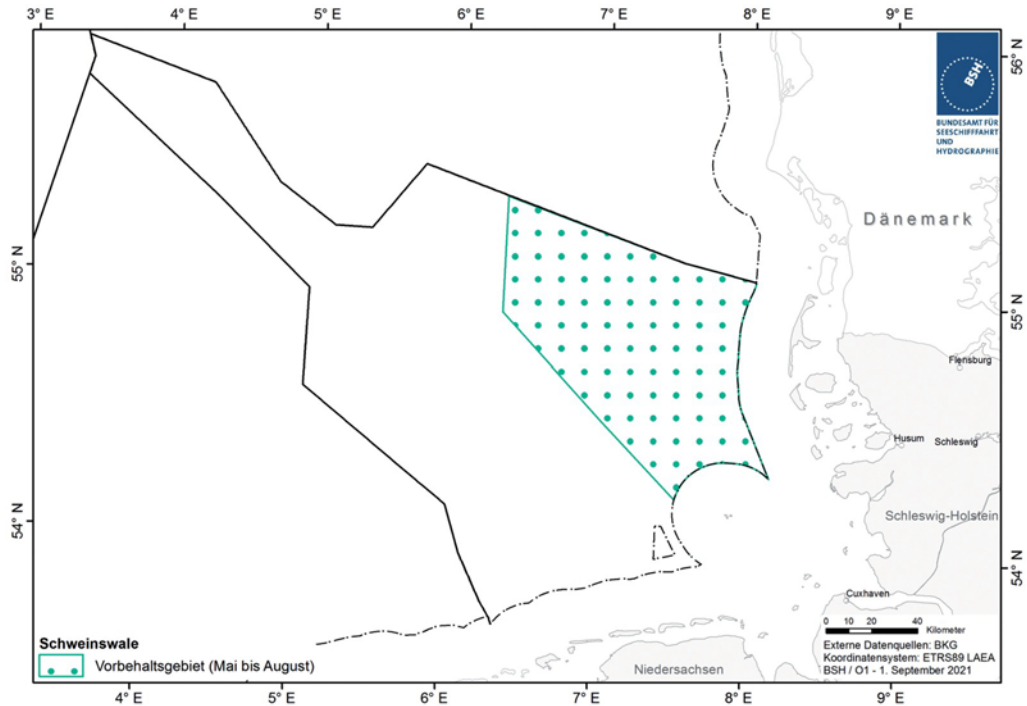


Figure 15: Designation for harbour porpoises in the North Sea.

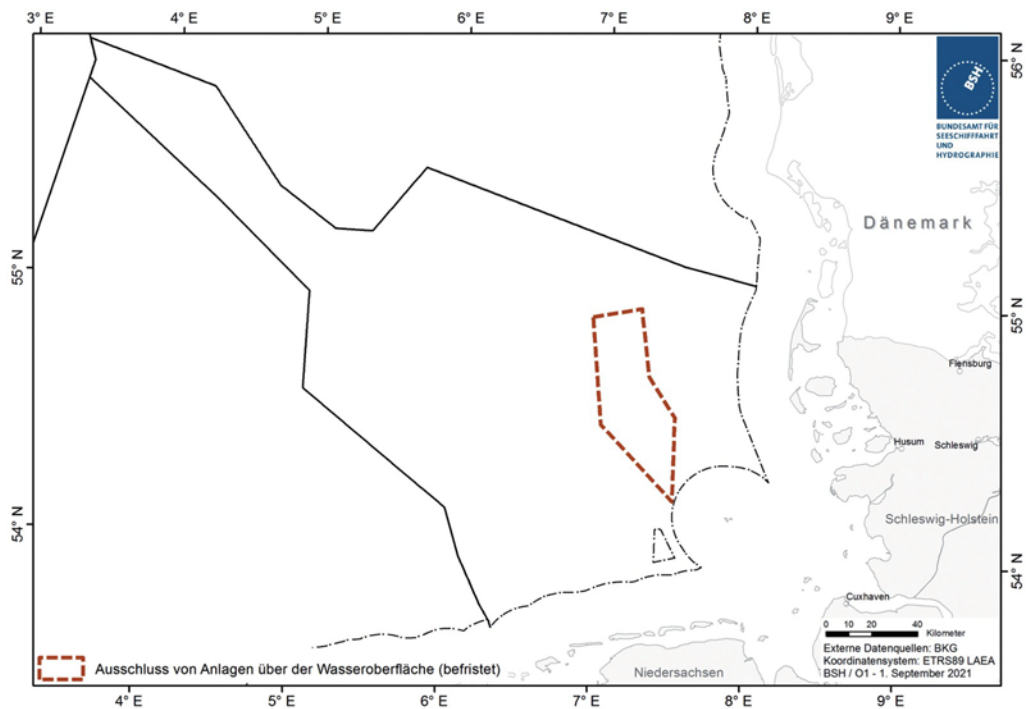


Figure 16: Exclusion of installations above the water surface in the North Sea.



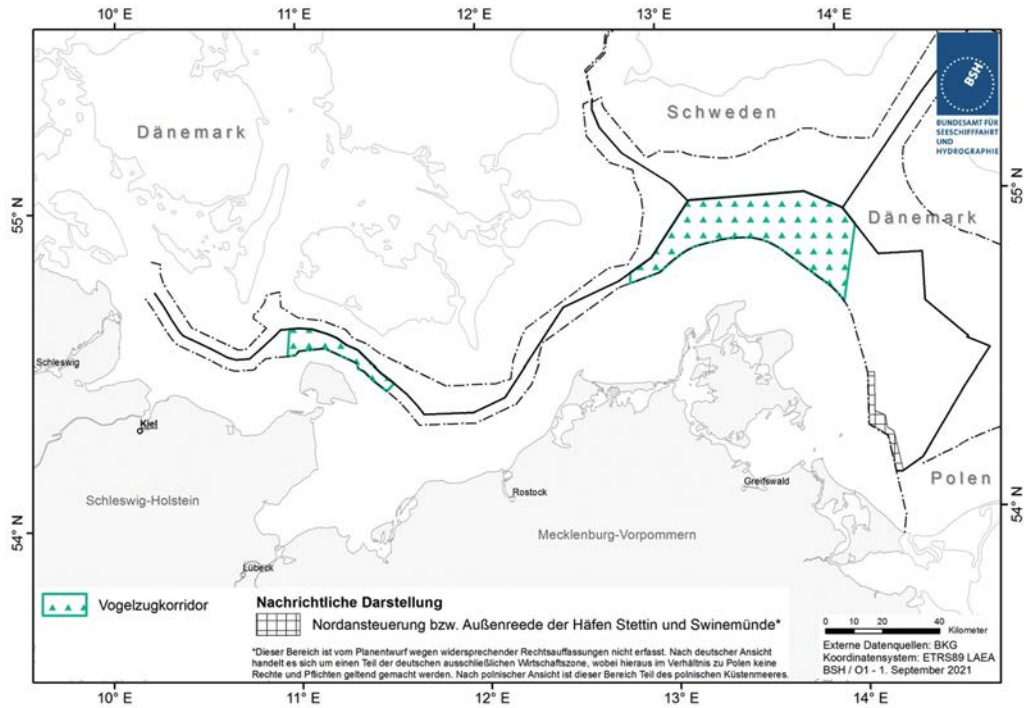


Figure 17: Bird migration corridors “Fehmarn-Lolland” and “Rügen-Skåne” in the Baltic Sea.

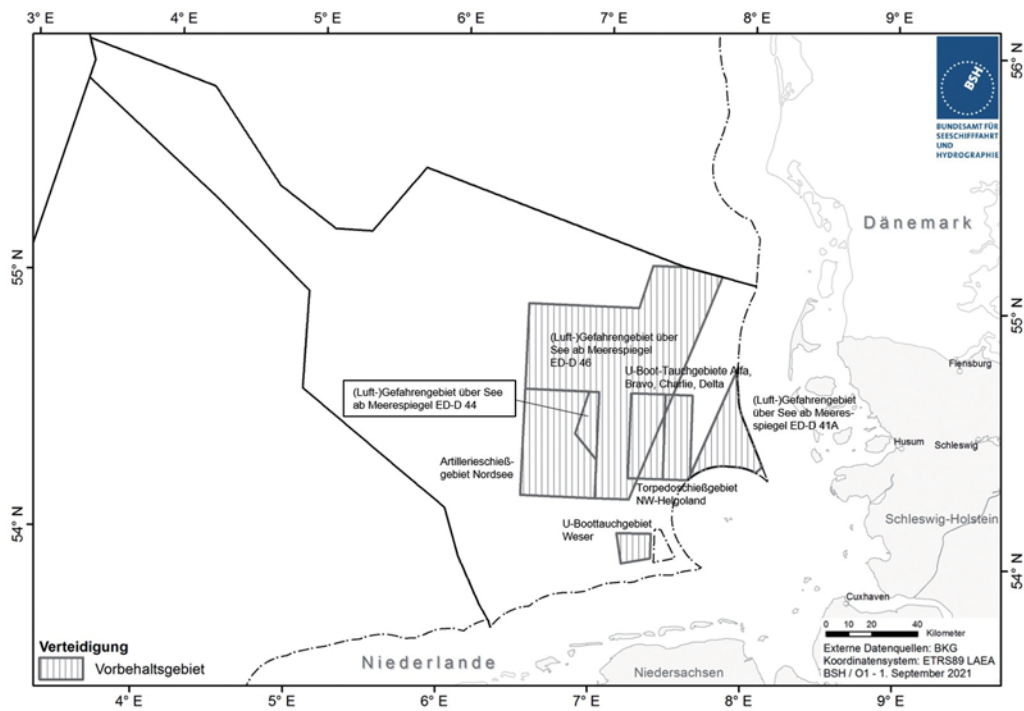


Figure 18: Designations for national and alliance defence in the North Sea.

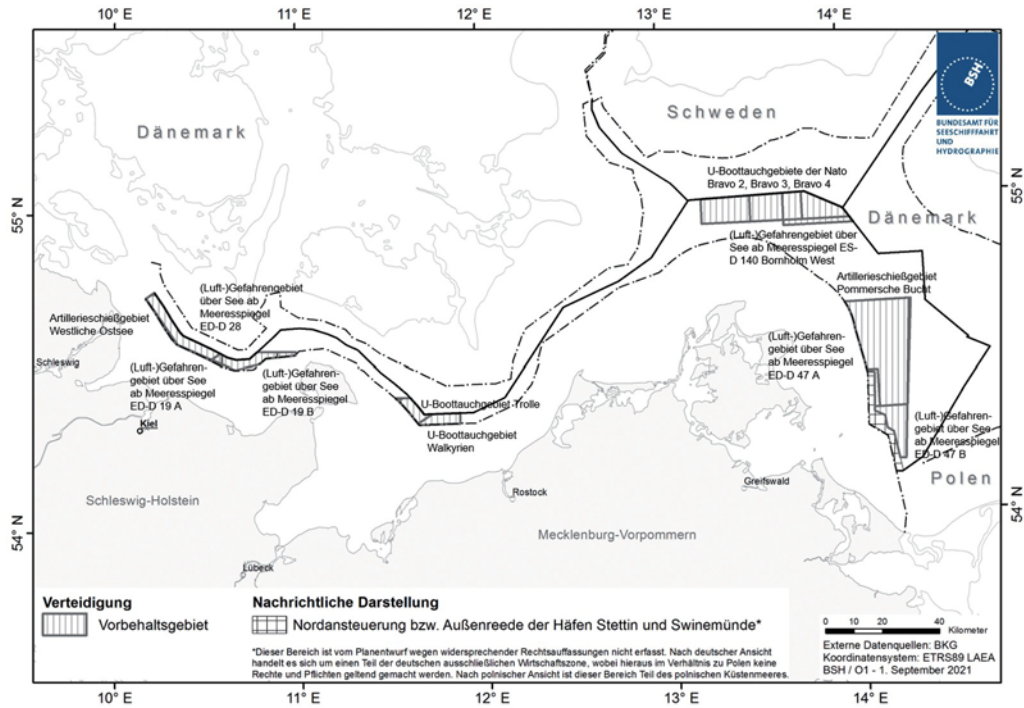


Figure 19: Designations for national and alliance defence in the Baltic Sea.

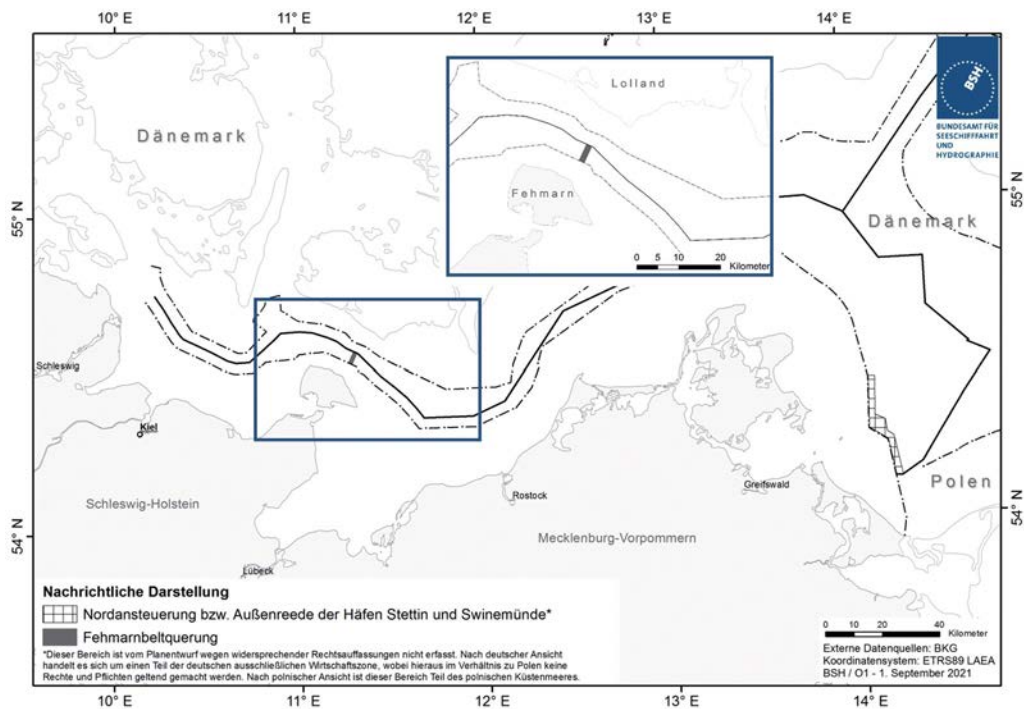


Figure 20: Fixed link across the Fehmarnbelt in the Baltic Sea.

## Summary explanation according to Section 10, paragraph 3 ROG

According to Section 10, paragraph 3 Spatial Planning Act (ROG), the spatial plan (hereinafter: plan) must be accompanied by a summary statement

1. on the way in which environmental concerns were considered in the update procedure,
2. on the way in which the results of public and authority participation were considered in the update procedure,
3. giving the reasons why the plan was chosen after consideration of the alternative planning options that were examined,
4. on the measures to be taken as part of the monitoring of the impacts on the environment according to Section 8, paragraph 4, sentence 1 ROG.

A Strategic Environmental Assessment (hereinafter: SEA) according to Section 8 ROG was carried out to accompany the update of the previously applicable spatial plans for the German EEZ in the North Sea and the Baltic Sea.

The above numbering of the designations refers to the plan as amended on 1 September 2021.

### 1. The way in which environmental concerns are taken into consideration

#### 1.1 Approach

The establishment of the plan and the implementation of the SEA were carried out with due consideration for the objectives of environmental protection. The knowledge obtained in the preparation of the environmental report has been incorporated in the preparation of the designations of the plan. This ensured that environmental concerns were taken into consideration at an early stage.

For the designation of areas for individual uses and the protection of the marine environment, the results of environmental assessment procedures already carried out as well as studies on nature conservation and species protection were used as a basis for decision-making with regard to the importance of individual spatial sub-areas for protected biological resources. At the same time, the environmental impacts of the spatial planning designations were continuously investigated during the preparation of the draft plan. The likely significant negative impacts of the individual uses discussed in the environmental report led to general as well as source-related designations in the spatial plan for the avoidance and mitigation of these impacts.

In summary, with regard to the designations of the plan, it applies that through the orderly, coordinated overall planning, impacts on the marine environment shall be avoided or minimised as far as possible. Building on the principles of sustainable marine use enshrined in the mission statement, the plan makes a number of designations that contribute to the protection and enhancement of the marine environment.

#### 1.2 Strategic environmental assessment

The environmental concerns and the knowledge obtained in the preparation of the environmental report have been incorporated in the preparation of the designations of the plan. For the way in which environmental concerns are taken into consideration, reference is made in particular to the methodology for SEA (cf Chapter 1.5 of the North Sea and Baltic Sea Environmental Reports).

The subject of the environmental report is the description and assessment of the likely significant impacts of the implementation of the designations of the plan on the marine environment. An assessment of the impacts caused by the designations of the plan is carried out on the basis of the status description and status assessment and the function and significance of the respective areas for the individual protected assets on the one hand, and the impacts emanating from these specifications and the resulting potential impacts on the other. A forecast of the project-related impacts when the plan is implemented is based on the criteria of intensity, scope and duration/frequency of the effects.

In the following, the main cumulative environmental impacts as well as the principles established to avoid the impacts are presented in relation to the protected assets.

#### Soil, benthos and biotopes

A significant part of the environmental impacts on soil, benthos, and biotopes is caused by offshore wind energy areas and power lines but only during the construction period (e.g. formation of turbidity plumes, sediment rearrangement) and in a spatially limited area.

Possible cumulative impacts on the seabed and the protected asset benthos as well as specially protected biotopes result from the permanent direct area use of the foundations of the installations and the installed cables. However, because both the grid infrastructure and the wind farms will result in an area use in the ‰ range, no significant adverse effects that would pose a threat to the marine environment in terms of the seabed and benthos are to be expected.

The following principles were incorporated into the spatial plan to avoid and mitigate the adverse effects on the protected assets of soil, benthos, and biotopes:

- Principle 2.2.2 (6) There should be an overall temporal coordination of the construction work of energy generation installations and spatially related installations. (G)

- Principle 2.2.3 (5) Lines should be bundled wherever possible. [...] Power and data cables shall be provided with a permanent cover necessary to safeguard other uses and functions. (G)
- Principle 2.2.3 (6) When laying cables, overall timing should be coordinated, and the gentlest possible cable laying procedure should be chosen. (G)

### **Fish**

The impacts on fish fauna caused by the designations in the plan are most strongly influenced by the realisation of wind farms in the priority areas for wind energy. The largely fishery-free zones within the wind farm areas could have a positive effect on the fish population by eliminating the negative fishing effects. Together with the designations of priority areas for nature conservation, wind farm areas could contribute to positive stock developments and thus to the recovery of fish stocks in the North Sea and Baltic Sea.

The following spatial planning principle regulates the use of fisheries in wind farms:

- 2.2.2 (4) Fishing vessels should be able to pass through wind farms on their way to their fishing grounds. Passive fishing with fish traps and baskets shall be possible in the safety zones of the wind farms [...].

### **Marine mammals**

Cumulative impacts on marine mammals, especially harbour porpoises, may occur mainly because of noise exposure during the installation of deep foundations.

In order to avoid and mitigate cumulative impacts on the harbour porpoise population in the German EEZ, the orders of the downstream approval procedure shall specify a restriction of the sound exposure of habitats to maximum permitted proportions of the EEZ and nature conservation areas. As a result, it is concluded that implementation of the plan will result in avoidance and mitigation of cumulative impacts.

The following principles were included in the spatial plan to avoid and mitigate the adverse effects on the protected asset marine mammals:

- Principle 2.2.2 (6) The input of sound into the marine environment during the construction of energy generation installations shall be avoided as far as possible according to the state of the art in science and technology. (G)
- Principle 2.4 (4) The main distribution area of harbour porpoises in summer in the EEZ of the North Sea identified in the 2013 noise abatement concept of the BMU is designated as a temporary reservation area for harbour porpoises (May to August).

### **Seabirds and resting birds**

The uses considered in the plan (in particular from wind energy) can have different impacts on seabirds and resting birds. These include habitat loss, increased risk of collision, and scaring and disturbance effects.

As a result of the SEA, taking into consideration the overall plan assessment, significant cumulative impacts of the spatial planning designations on the protected asset seabirds and resting birds are not to be expected according to the current state of knowledge. The following objectives and principles have been included in the spatial plan to avoid and mitigate adverse effects on the protected asset seabirds and resting birds:

- Objective 2.4 (1) The [...] national marine protected areas in the EEZ [...] shall be designated as nature conservation priority areas according to their conservation purposes. The [...] area shown in the Appendix is designated as a priority area for divers. (Z)
- Principle 2.4 (3) Military use should interfere as little as possible with the conservation purpose of the priority and reservation areas for divers. For the period from 1 March to 15 May of a given year, it applies that in the priority and reservation areas, divers should not be adversely affected by sand and gravel extraction and that the Federal Armed Forces authorities and the competent nature conservation authority should come to an agreement regarding military use. (G)

### **Migratory birds**

The uses considered in the spatial plan can have different impacts on migratory birds – such as barrier effects and risk of collision – especially from wind energy.

By designating areas for wind energy in a spatial context, barrier effects and risk of collision in important feeding and resting habitats are reduced by applying preventative and mitigation measures.

- Principle 2.4 (6) The [...] areas of the bird migration corridors “Fehmarn-Lolland” and “Rügen-Skåne” can, in principle, be used by wind energy provided they are designated as priority or reservation areas for wind energy. During periods of mass migration events, wind turbines shall not be operated in bird migration corridors if other measures are not sufficient to exclude a proven significantly increased risk of collision of birds with wind turbines. Under the same conditions, construction and maintenance work should not take place. (G)

Against the background of the current state of knowledge and taking into consideration designation 2.4 (6) of the plan, significant cumulative impacts by the designations on migratory birds can be excluded with the necessary certainty.

### **1.3 Designations to protect and enhance the marine environment**

The safeguarding of legally binding nature conservation areas as priority areas for nature conservation serves to protect the conservation purposes and to safeguard open space. No priority or reservation areas for wind energy are identified in the priority areas for nature conservation. The reservation areas for pipelines also run predominantly outside of ecologically significant areas.

The designation of the main concentration area of divers in the EEZ of the North Sea as a priority area (which includes sub-area II of the nature conservation area "Sylter Außenriff – Östliche Deutsche Bucht" but extends well beyond this nature conservation area, takes account of the protection of the divers species group, which is sensitive to disturbance, and its particularly important habitat, and may also have a positive effect on other species protected in the nature conservation area and their feeding and resting grounds.

In addition, by excluding installations above the water surface, designation (5) in Chapter 2.4 serves to implement measures to secure the coherence of the Natura 2000 network (coherence measures) with regard to adverse effects emanating from existing wind turbines in the priority or reservation area for divers.

Other comprehensive spatial and textual designations in Chapter 2.4 such as the designation of the harbour porpoise reservation area (Principle (4)) and the designations on bird migration corridors (Principle (6)), on the preservation of the EEZ as a natural area, in particular on the permeability of the marine space for migratory species (Principles (7) and (8)), and on the protection and preservation of the marine landscape (Principle (9)), contribute to the protection and improvement of the marine environment.

General principles of environmental protection can also be found in the respective uses. Pollution from shipping is to be reduced by taking into consideration best environmental practice in accordance with international conventions on marine protection and the state of the art in science and technology. According to Chapter 2.1 Principle (1), economic uses should be sustainable and as area-saving as possible, and fixed installations should always be deconstructed according to Objective (2). Principle (4.1) states that a threat to the marine environment from economic uses, in particular adverse impacts on the natural functions of the marine ecosystem, should be avoided as far as possible and that best environmental practice in accordance with international conventions on marine protection and the state of the art in science and technology should be considered.

### **1.4 Overall assessment of the plan with regard to environmental impacts**

Based on the same medium-term planning horizon, most of the environmental impacts of the individual uses for which designations are made would also arise if the plan were not implemented. This is because it is not apparent that the uses would not take place or would take place to a significantly lesser extent if the plan were not implemented. From this point of view, the designations of the plan are basically "neutral" with regard to their impacts on the environment. Although it is possible that, because of the concentration or bundling of individual uses in certain areas, some designations in this area may well have negative environmental impacts, an overall balance of the environmental impacts is rather positive because of the bundling effects. This is because the other areas are relieved, and hazards to the marine environment (e.g. risk of collision) are reduced.

In the case of wind energy use, the potential impacts are often small-scale and largely short-term because they are limited to the construction phase. If preventative and mitigation measures are complied with, in particular those for noise mitigation during the construction phase, significant impacts can be avoided, especially through the implementation of the designations for offshore wind energy and power lines.

Finally, with regard to any interrelationships, it should be noted in the context of the SEA that, based on current state of knowledge and at the comparatively abstract level of spatial planning, no significant impacts on the marine environment within the area of investigation are to be expected as a result of the planned designations. Please refer to the environmental reports for a detailed examination and assessment of the environmental impacts and the planned mitigation measures.

## **2. Way in which the participation of the public and authorities is taken into consideration**

The update process was characterised by information exchange, consultations, and formal and informal participation meetings. The process was accompanied by a scientific advisory board with representatives from research and legal institutes. Parallel to the process, information meetings and expert hearings were held at various times in the parliamentary arena. The results of these were also incorporated into the update process.

### **2.1. Notice according to Section 9, paragraph 1 ROG**

In a letter dated 11 June 2019, the Federal Ministry of the Interior (BMI) notified the public and the public bodies affected in their interests according to Section 9, paragraph 1 ROG of the planned update of the 2009 plans.



In particular, public authorities were asked to provide information on plans, measures, and other relevant information for the planning approval.

In the period from September to December 2019, various technical discussions were held on the topics of shipping, marine nature conservation, fisheries, underwater cultural heritage, defence, and raw materials extraction. Within this framework, information was exchanged and planning options, solutions, and possible designations of a new plan were discussed. In addition, the scoping phase was prepared.

The Federal Maritime and Hydrographic Agency (BSH) drew up a concept for the update of the plans, taking into consideration the information received from the early participation and the results of the expert discussions. At an early stage in the process, the concept considered three planning options with different perspectives.

Because the space in the German EEZ is increasingly being stressed with increasing pressure of use, all planning options had in common that they did not map the maximum space demands of the individual sectors but rather pursued only an integrated planning approach with different but well-founded priorities. Planning option A focused on traditional uses of the sea. Particular consideration was given to the interests of shipping, raw material extraction, and fishing. Planning option B showed a climate protection perspective; a lot of space was given to future use by offshore wind energy. Planning option C focused on securing areas for marine nature conservation over a wide area and to a large extent.

## **2.2. Participation in conception (planning options) and scoping**

With the development of the conceptual design, the draft scope of investigation for the SEA was prepared. The conceptual design and draft of the scope of investigation were published on 31 January 2020. There was an opportunity for public bodies and the public to comment on these documents until 4 March 2020. At this stage of the process, consultation questions on relevant topics were also addressed to the consultation participants. A total of 41 comments were received. These were mainly from federal authorities, state authorities, (scientific) institutes and institutions, transmission system operators, and environmental, wind energy, and fishing associations.

The littoral states were notified by letter dated 10 March 2020. They were given the opportunity to comment on the conceptual design and the draft of the scope of investigation by 3 April 2020.

A meeting with national participants on the draft of the scope of investigation and design was held on 18 and 19 March 2020, and an early consultation meeting with participants from the littoral states was held on 23 April 2020.

Overall, the comments received showed a picture of diverse, partly contradictory demands and indications with a focus on different topics.

The results in detail:

### **Shipping**

In response to the comments submitted, current traffic was considered based on AIS data. The traffic analysis essentially confirmed the picture from 2009. Thus, with the exception of Route SN10, the previously defined areas continue to exist or have been only slightly adjusted (SN6-9). In addition, in the Baltic Sea, designation SO4 was made to adapt to the traffic flows and the designations in the draft of the Swedish spatial plan. In the North Sea, designations SN15 to SN17 were made to secure transit traffic and northbound traffic.

In addition to the traffic separation areas, including corresponding safety areas, the main shipping routes identified from a traffic point of view (with a width of 3 nm) were defined as priority areas.

Route SN10 is an exception. In contrast to the other main shipping routes outside traffic separation areas, the route is much more heavily used. The traffic is also widely distributed because of the traffic inlets and outlets. Against this background, priority areas are defined according to the recorded traffic flows, which necessitated a slight shift of the route to the North-west. Compared with previous federal offshore grid plans for wind energy, this led to a north-western enlargement of the areas for offshore wind energy (EN9 to EN13). However, some areas within SN10 have been limited in time until 2035 because the federal government considers it necessary to examine possible traffic management measures together with Denmark and the Netherlands.

### **Wind energy**

The demand that the reservation areas from EN19 be defined as priority areas was not met because of the still insufficient data availability in these areas and uncertainties regarding the concrete and ultimately weighed design of the wind energy areas. The same applies to the requirement to make designations beyond the planning horizon of 2040 because spatial planning makes designations for a regular medium-term planning period (usually 10 to 15 years) according to Section 7, paragraph 1, sentence 1 ROG.

The requirement that other energy generation areas should be designated in the draft plan was not implemented for two reasons. On one hand, from a planning perspective, hydrogen production in these areas is not fundamentally ruled out by the designation of the priority and reservation areas for wind energy.

On the other hand, the designation of such areas is the task of the site development plan according to the legal provisions applicable to sectoral planning.

Furthermore, no regulation on height limitation was included in the plan because there is no need for further regulation because of the advanced development of Areas N1–N3, including deviation procedures from Objective 3.5.1 (8) of the 2009 North Sea Spatial Plan.

The requests to specify the regulations on the passage of military vehicles through wind farms as well as on the installation of fixed installations for national and alliance defence were met by elaborating on the principles.

Because some conflicting demands were made on the subject of multiple uses, only a few designations were made in the 1st draft plan where uses overlap. Reference areas were not designated at the spatial planning level because this requires knowledge of project-specific framework conditions.

### **Cables**

In the 1st draft plan, the pipeline corridors for the North Sea envisaged in the concept were supplemented based, in particular, on the designations of the site development plan for power cables, and routes of existing pipelines were secured. In the North Sea, a wide pipeline corridor was also defined in the course of the Europipe 1 and Norpipe pipelines in order to secure space for pipeline-based infrastructure for future planning as well. However, individual existing cables were not taken into consideration because of a lack of need for protection unless the corridor was fundamentally suitable for future planning outside of nature conservation areas. A sufficient installation depth should minimise adverse effects on other uses (e.g. fishing).

### **Raw material extraction**

In the 1st draft plan, according to the demands of some consultation participants, reservation areas for raw material extraction were designated in the areas for which permits, authorisations, or operating plans exist. The requirement to also spatially secure sites that are particularly rich in raw materials was not implemented because only existing mining rights were considered in the plan because of the medium-term nature of the spatial plan.

According to a decision of the Federal Constitutional Court, mining permits are property rights protected by fundamental rights. Therefore, spatial planning cannot fundamentally exclude the extraction of raw materials on these sites. Insofar as operating plans have already been issued, environmental concerns have already been assessed within this framework. The designation of reservation areas for medium-term spatial protection for raw material extraction is also carried out on sites with existing operational plans (e.g. OAM III) because these are approved only for a few years at a time.

### **Fishery and marine aquaculture**

The reservation areas for the Norway lobster fishery was included in the 1st draft plan. Further territorial specifications for fisheries do not seem appropriate because fish are not stationary.

### **Strategic uses**

The designation of the research reservation areas in the 1st draft plan corresponds to the research reservation areas of the 2009 spatial plan for the North Sea. For the Baltic Sea, the reservation areas were adapted to the requirements of fishery research in terms of location and size. For the consideration of the interests of national and alliance defence in scientific research projects, reference was made in the justification to technical legal specifications.

### **Protection and improvement of the marine environment**

With the designation of the legally binding nature conservation areas as priority areas for nature conservation in the 1st draft plan, the corresponding demand, above all of the nature conservation authorities and nature conservation associations, was met. In addition, reservation areas for divers, harbour porpoises, and the “Fehmarn-Lolland” bird migration route have been included. The required designation of the bird migration corridors “Fehmarn-Lolland” and “Rügen-Skåne” as priority areas did not take place in the 1st draft plan because of a lack of sufficient knowledge and a lack of national coordination, especially with the federal state of Mecklenburg-Western Pomerania and the directly adjacent littoral states. This applies in particular to the “Rügen-Skåne” bird migration corridor mentioned above.

The demand to refrain from spatial designations that are incompatible with the protective purpose of the nature conservation areas, in particular the extraction of raw materials, was not met for legal reasons. The nature conservation ordinances do not exclude other uses *per se*. Certain uses are permitted provided they are compatible. The required exclusion of wind energy as an objective was also not implemented for these reasons.

The demand to establish buffer zones of up to 10 km around each protected area was not met in the requested generality. On one hand, there is a lack of sound scientific knowledge for such a buffer zone – even independently of the conservation purpose. On the other hand, the establishment of buffer zones is a concern that is alien to spatial planning with its territorial categories.

In Area EN13, a distance of 5.5 km from the main concentration area of divers was maintained in the 1st draft plan on the basis of scientific findings on the avoidance behaviour of divers.

The requirement to use the best available technology has been met *mutatis mutandis* (best environmental practice) for some uses in Chapters 2.1, 2.2.1, and 2.3.1.

It was not possible to meet the demand to define measure 409 of the MSFD programme of measures as a spatial planning objective because this is an original task of nature conservation sectoral planning (including management plans).

With regard to the requirement to include “suitability determinations” in the environmental reports, it should be noted that the environmental reports were prepared on the basis of current and available information and knowledge. According to Section 8, paragraph 1, sentence 3 ROG, the environmental assessment refers to what can reasonably be required according to the current state of knowledge and generally accepted testing methods as well as the content and level of detail of the plan. In this respect, the demands for a scientific elaboration of the ecological sustainability, which was necessary as a basis for expansion scenarios, were met as far as possible.

### **National and alliance defence**

In the 1st draft plan, the military exercise areas were shown for information purposes according to the “Standing Order of the Fleet No. 012” of the Federal Armed Forces Naval Command – as in the 2009 plans. At that time, a legal examination was carried out in consultation with the Federal Foreign Office to determine whether the rights of third countries preclude territorial determinations for defence.

In the former Chapter 2.5.1, Principle (1) and in Chapter 2.2.1, former Principle (6), the concerns of defence and civil protection were taken into account in order to ensure the functional capability of the Federal Armed Forces for exercises and tests, especially in the exercise areas shown in the plan. The objective and Principle (5.1) in Chapter 2.2.2 address the partially conflicting demands for wind energy and national and alliance defence in a balancing manner.

The requested relocation of military training areas in favour of wind energy did not appear possible because for example, safe exercise operations to maintain defence capability could not have been ensured in the same way.

### **Other concerns to be taken into consideration**

#### *Underwater cultural heritage*

For all economic uses, apart from shipping, the plan establishes the principle that the underwater cultural heritage, which is understood here in the sense of the definition formulated by the experts, the research on it as well as known and, if applicable, found cultural assets should be adversely affected as little as possible.

#### *Environmental assessment*

As part of the SEA, impacts of individual uses were also assessed in terms of their cumulative effect on the nearest Natura2000 areas, taking into consideration the principles and objectives of the plan as well as preventative and mitigation measures defined in downstream approval procedures. The possible adverse effect on the conservation objectives of the other Natura 2000 areas was then also assessed in the waters of the littoral states on the basis of the results. The conclusion that a significant adverse effect on the conservation objectives can be ruled out with the necessary certainty is based on the range of effects and the spatial distance of the areas.

### **Designation of the scope of investigation; preparation of the 1st draft plan**

On 17 September 2020, the scope of investigation of the SEA for the update of the plans was set, taking into consideration the comments received up to that date.

Taking into consideration the results from the consultation on the conceptual design and the draft of the scope of investigation, the 1st draft of the spatial plan and the environmental reports were prepared.

## **2.3 Participation according to Section 9, paragraph 2 ROG**

There was an opportunity for public bodies and the public to comment on the 1st draft of the spatial plan and the environmental reports. A total of 67 comments were received. These were mainly from federal authorities, state authorities, institutes, transmission system operators, environmental wind energy associations, fishing associations, and private individuals.

The additionally offered hearing took place on 24 and 25 November 2020 as an online conference. At the meeting, the 1st draft plan and key points from the environmental reports were presented in detail and discussed on the basis of the comments received.

By letter dated 4 December 2020, the littoral states were involved in the 1st draft plan and the environmental reports. There was an opportunity to comment on the consultation documents until 15 January 2021. Seventeen comments were received. An international consultation meeting was held on 27 January 2021.



Details of the results of the participation according to Section 9, paragraph 2 ROG:

### **Mission statement**

Demands regarding the mission statement were included in the 2nd draft plan. All sectors are mentioned. Because of the coordinating and balancing task of spatial planning, no sector is particularly emphasised. Because there is a multitude of legal bases for the individual sectors, only the Convention on the Law of the Sea is mentioned in the mission statement. The mission statement is intended to present the main guiding principles of spatial development in a compact form. This is why it was decided to refrain from describing or specifying them in too much detail. Because there are currently no well-founded, recognised methods for determining cumulative load limits in particular, the request for specification was not met.

Furthermore, the ongoing evaluation of all sectoral concerns based on this mission statement was included. The medium-term design effect of the spatial plan makes it possible to adapt the designations to the situation if this becomes necessary in the sense of the guiding principle of spatial planning – namely sustainable and future-oriented spatial development from an economic, social, and ecological point of view.

### **Shipping**

Requirements for shipping were included in the 2nd draft plan. In the process, Route SN18 was added to secure northbound traffic. This is a continuation of the corresponding routes in Denmark and the Netherlands. In addition, with SN19 and SO5, temporary reservation areas for shipping were introduced in areas that would also be suitable for wind energy. This solution of a time limit ensures that there is sufficient time to analyse the traffic situation in the areas and to examine the necessity of the designation. A report is to be commissioned as the basis for the proof. With regard to adverse effects by other uses concerning route SO2, reference is made to the priority of shipping in the nature conservation priority area, the principle of mutual consideration, and subsequent planning and approval procedures.

### **Further economic uses**

In the 2nd draft plan, as a result of the comments, principles (1) and (4) to (7) in Chapter 2.2.1 were combined into one principle (3) according to which economic uses should adversely affect other uses as little as possible. There is no highlighting of individual uses or functions. The consideration of carry over effects is the task of the site development plan. The demand for naming total load limits and threshold values could not be met because of the lack of recognised sound methods.

The references to sectoral law have been shortened in the explanatory memorandum – but not deleted because they serve the purpose of explanation and overall understanding.

The consideration of cultural assets is included in Principle (3) as well as in chapters 2.3 and 2.5.

### **Wind energy**

In the 2nd In the draft plan, Area EO2 in the Baltic Sea was defined as a priority area because the planning of wind energy in the bird migration corridor, subject to compliance with preventative and mitigation measures (Principle 2.4 (6)), is considered compatible with environmental protection concerns and with the concerns of safety and efficiency of shipping from a spatial planning perspective. Based on the findings on the avoidance behaviour of divers to date, it is not possible to designate Reservation areas EN4 and EN5 as priority areas.

In addition, a conditional Priority area EN13-North in the North Sea from 1 January 2030 and a conditional priority area EO2-West in the Baltic Sea from 1 January 2025 were designated. The resolute condition (i.e. the areas do not become priority or reservation areas for wind energy) is that the Federal Ministry responsible for shipping proves that these areas continue to be required for shipping for compelling reasons of safety and efficiency of shipping. Area EN20 has been designated as a reservation area as of 1 January 2027 unless the Federal Ministry responsible for fishery research proves that keeping the area free from development by wind turbines is essential for fishery research. These designations ensure that there is sufficient time to assess the necessity of the areas for shipping or fishery research. In order to safeguard the interests of fishery research, the type and extent of fishery research should remain possible in Areas EO2-West and EN20, which overlap with Reservation areas FoN3 and FoO3.

The demands on the topics of wind energy and fisheries were taken into account through Principle (4). It was added that the passage and passive fishing regulations apply insofar as the construction, operation, and maintenance of the wind farms are adversely affected as little as possible and subject to conflicting technical regulations.

In response to requests to take into consideration the concerns of wind farm developers with regard to the passage of military vehicles, Principle (5.1) was supplemented to the effect that the operation and maintenance of the wind farms are not or only insignificantly adversely affected by the passage of vehicles of the Federal Armed Forces. In Principle (5.2), the proviso was added that the operation of the military installations on the energy generation facilities is necessary from a military point of view for national and alliance defence and that the operation of the energy generation facilities is thereby adversely affected as little as possible.

The designation of Principle (6) as an objective was out of the question because a regulation that meets the requirements of an objective definition for determinability and ultimate balance is not possible.

The plan does not contain any height limitation requirements for the reasons already mentioned for the 1st draft plan. Regulation of project-related shipping traffic in the territorial waters is out of the question for lack of jurisdiction.

A review of the Bravo 2 military training area concluded that the area is still needed for national and alliance defence. In the past, there have already been reductions in submarine search areas in favour of wind energy.

### **Cables**

Gate GN7 to the Schleswig-Holstein territorial waters was included as well as the gate to the neighbouring countries. Only minor adjustments were made to the line corridors. It was also pointed out that individual existing power and data cables would continue not to be traced because spatial protection was not required and detailed planning would be carried out as part of the sectoral planning. The routing of pipelines through protected areas is avoided as far as possible; for technical aspects, reference is made to sectoral planning. Economic activities, which include the pipeline infrastructure, should interfere as little as possible with national and alliance defence; in the justification, reference is made to the specification in sectoral law.

### **Raw material extraction**

The requirement to designate a hydrocarbons reservation area on a natural gas permit field in the area of Areas N-6 and N-7 (SDP) was implemented in the 2nd draft plan with the designation of a hydrocarbons reservation area between wind energy reservation areas EN6 and EN7. A designation for hydrocarbons at the Nördlich Borkum locations was removed because it is too far away from open areas.

Based on the monitoring data, the raw material extraction in OAMIII/SKN1 does not show any significant adverse effect on the original substrates and the legally protected biotopes. Reservation area SKO1 was designated taking into consideration the experiences from the North Sea and adapted to the local, very heterogeneous sediment conditions in the "Adlergrund Nordost" area. Findings from an environmental impact assessment for sand mining on Rönnebank in the neighbouring Danish maritime area were also considered.

### **Fishery and marine aquaculture**

Compared to the 1st draft plan, the designation on sustainable management was deleted because this is covered by 2.2.1 (1). Whether and to what extent a more extensive joint use of sites by offshore wind energy and fisheries can be made possible, taking into consideration safety concerns, is to be scientifically investigated and examined.

### **Strategic uses**

Designation 2.2.2 (3) regulates the multiple use of wind energy (EO2-West and EN20) in the existing research areas FoN3 and FoO3. This research should thus remain possible in the type and scope in which it has been carried out to date.

### **Protection and improvement of the marine environment**

The designation of the required zero-use areas contradicts the coordination mandate of spatial planning. In this respect, Designation 2.4 (3) on multiple use in the priority area for divers should be emphasised. The principle contributes to the protection of the marine environment with the coordination of the Federal Armed Forces and the nature conservation authority as well as the time constraints for sand and gravel extraction in reservation and priority areas for divers.

The principle on bird migration corridors ensures targeted protection of bird migration by resolving the conflict with the use of wind energy in an appropriate manner. A designation as a priority area cannot be made because of the lack of ultimate balance. There is insufficient scientific knowledge to delineate the main bird migration area in the North Sea.

Based on the comments on the 1st draft plan, the designation of the diver was upgraded from a reservation area to a priority area over a large area. The combined approach of priority and reservation areas for divers ensures the priority protection of the diver in large parts of the area, safeguards the special importance of the main concentration area for the divers, and takes into consideration the sustainable use of reservation areas EN4 and EN5.

The area designation as a main concentration area or nature conservation area also means the spatial limit for supporting this use. When considering the impacts of wind farm projects, especially with regard to the avoidance behaviour of divers, the positive impacts in favour of divers and the contribution to climate protection outweigh the negative impacts overall.

For the other required reservation areas, there are either insufficient reliable findings for a designation or they largely overlap with other, partly similar designations.

The site mentioned in Designated 2.4 (5) serves to implement coherence measures (Natura 2000) with regard to adverse effects caused by existing wind turbines in the reservation area for divers.

Ecological connectivity is taken into consideration and protected in particular through Designated 2.4 (8) on migration areas; there are no sufficiently robust findings for further spatial designations.

#### **National and alliance defence**

The military training areas shown in the plan were designated as reservation areas in accordance with their military purposes because the legal review carried out in the meantime came to the conclusion that the designation of reservation areas for national and alliance defence is compatible with UNCLOS.

The requested relocation of military training areas to areas far from the coast is not possible according to statements by the responsible public authorities. Large areas of the exercise areas are located in priority areas for nature conservation.

A principle that defence and civil protection should be carried out with sustainability in mind and should adversely affect cultural heritage as little as possible has been newly included.

#### **Preparation of the 2nd draft plan; departmental coordination**

After implementing the participation on the 1st draft plan and on the environmental reports in accordance with Section 9, paragraph 2 ROG, the BMI and the BSH continued to write the draft of spatial plan and the environmental report in the 1st quarter of 2021. From March to May 2021, the departmental vote according to Section 45 f. GGO took place. The departmentally agreed 2nd draft plan and revised environmental reports were published on 2 June 2021.

#### **2.4 Participation according to Section 9, paragraph 3 ROG; hearing according to Section 47 GGO, final review according to Section 50 GGO**

According to Section 9, paragraph 3 ROG, the general public and public bodies had the opportunity to comment on amendments triggering first-time or greater impacts as well as on the corresponding amendments to the environmental reports by 25 June 2021. At the same time, the consultation of the Federal States and associations on the legal ordinance and the draft plan took place according to Section 47 GGO. A total of 32 comments were received. These were mainly from state authorities, institutes, transmission system operators, and environmental, wind energy, and fishing associations.

In addition, an event for queries and information exchange was offered on 11 June 2021 as an online conference.

By letter dated 4 June 2021, the littoral states were consulted on the 2nd draft plan and the revised environmental reports. There was an opportunity to comment on the changes until 30 June 2021. Nine comments were received. An international information meeting was held on 15 June 2021.

After evaluating the comments, the final departmental vote on the legal ordinance and the spatial plan took place in July 2021 according to Section 50 GGO.

As a result of these procedural steps, the 2nd draft plan was amended as follows:

The mission statement include support for the achievement of good environmental status of marine waters. While there were no changes in the designations, amendments and additions were made in various explanatory texts; which are mainly of an editorial nature.

Apart from that, no new demands that had not already been considered in the process or had not been adopted for the reasons outlined above were introduced.

### **3. Reasons for the chosen plan after weighing it against the other planning options considered**

For the spatial plan, a graduated examination of reasonable alternatives was carried out in principle. Overall, the conceptual/strategic design of the planning and possible spatial alternatives played a role.

As explained above, three planning options were developed early in the planning process. A preliminary assessment of selected environmental aspects of the three planning options was carried out in advance of the actual environmental assessment and focused on those impacts that related to the spatial designations and differences between the three options.

From an environmental perspective, no clear preference for one of the three planning options was identified. The clearest differences between the planning options arose for offshore wind energy because the extent of the land use designations varied greatly, resulting in different levels of CO<sub>2</sub> savings potential from a climate protection perspective.

The 1st draft plan was prepared on the basis of the three planning options, the comments received on them, and further findings and requirements from informal expert and departmental discussions. In the course of the planning process, this draft was revised on the basis of the comments received and coordinated in departmental discussions up to the present plan. In the course of revising the draft plan, the alternatives to be examined were reduced and became increasingly (spatially) concrete.

The plan is the result of ongoing consideration of spatial and textual alternatives, which were investigated for their environmental impacts during preparation and adjusted or discarded accordingly.

Conceivable conceptual/strategic alternatives to the designations of the draft plan (objectives and principles) made for the individual uses were considered in each case. It was important to bear in mind that other locations are not always possible or practical within the limited dimensions of the EEZ. Thus, raw material extraction is tied to fixed areas/locations.

The type of use in spatial designations has been determined as far as possible to mitigate the extent of impacts. This environmental precaution applies to shipping as well as to economic, scientific, and military uses. It includes, for example, the seasonal limitation of activities to protect sensitive bird species and marine mammals as well as the reference to mitigation measures and best environmental practice.

Compared with the zero alternative (i.e. no update of the 2009 plans), the SEA concludes that higher-level and forward-looking planning, taking into consideration a variety of spatial claims, is likely to lead to a lower overall area use and thus to lower environmental impacts than if the plan were not implemented.

#### **4. Monitoring measures according to Section 8, paragraph 4, sentence 1 ROG**

The planned measures for monitoring the significant impacts of implementing the Plan can be summarised as follows:

- Consolidation of data and information that can be used to describe and assess the status of areas and protected assets,
- Further development of existing expert information networks for the assessment of potential impacts from the development of individual projects as well as cumulative impacts on the marine ecosystem,
  - MarinEARS (Marine Explorer and Registry of Sound) and National Sound Register,
  - MARLIN (Marine Life Investigator),
- Development and/or use of procedures and criteria for evaluating the plan and adapting or, where appropriate, optimising it as part of the update,
- Evaluation of measures to avoid and mitigate significant impacts on the marine environment, taking into consideration possible cumulative effects.

The following data and information are required in order to assess the possible impacts of the plan:

1. Data and information available to the BSH within the scope of its responsibility,
2. Data from research projects of the BSH and from research projects of other public agencies,
3. Data and information from other federal and state authorities (based on Principle 2.2.1 (4.2) and on request),
4. Data and information from assessments carried out within the scope of international committees and conventions.

For reasons of practicability and appropriate implementation of requirements from the SEA, the BSH will pursue an approach focusing on the interdisciplinary consolidation of information on the marine environment that is as ecosystem-oriented as possible when monitoring the possible impacts of the plan. To be able to assess the causes of planned changes in parts of an ecosystem, the anthropogenic variables from spatial observation (e.g. technical information on shipping traffic from AIS data resources) must also be considered and included in the assessment.

When consolidating and evaluating the results from monitoring at the project level and from other national and international monitoring programmes as well as from the accompanying research, a review of the knowledge gaps outlined in the environmental report or the forecasts subject to uncertainties will be carried out. In particular, this concerns forecasts regarding the assessment of significant impacts of the designations of the plan on the marine environment. Cumulative effects of designations are to be assessed both regionally and supraregionally.