

**Certified Translation from German into English**

MINISTRY OF ECONOMIC AFFAIRS, TRANSPORT, EMPLOYMENT, TECHNOLOGY AND TOURISM OF THE  
STATE OF SCHLESWIG-HOLSTEIN – OFFICE FOR PLAN APPROVAL - TRANSPORT –

Excerpts from the

**P L A N A P P R O V A L D E C I S I O N**

of 31 January 2019 (File No. APV-622.228 -16.1-1)

for the construction of a new  
**Fehmarnbelt Fixed Link**  
from Puttgarden to Rødby,  
**German section of the project**

compiled for the purposes of providing information on the handling of  
potential cross-border environmental impacts

## **A. The operative provisions of the plan approval decision**

### Approved construction measures

**Approval is granted for the plan**, submitted by Femern Baelt A/S and the State Agency for Road Construction and Transportation of Schleswig-Holstein (Landesbetrieb Straßenbau und Verkehr Schleswig-Holstein – LBV-SH), Lübeck office, with regard to the construction of a Fehmarnbelt Fixed Link, on the basis of Section 18 of the General Railway Act (Allgemeines Eisenbahngesetz – AEG) and Section 17 of the Federal Trunk Road Act (Bundesfernstraßengesetz – FStrG) in conjunction with Section 73(4) of the Administrative Procedures Act (Verwaltungsverfahrensgesetz – VwVfG) and Section 40(5) of the Highway Code (Straßen- und Wegegesetz – StrWG) of the State of Schleswig-Holstein subject to the following ancillary provisions.

(...)

### **1. Regulation of Content and Ancillary Provisions**

(...)

#### **2.2.4 Requirements pursuant to Environmental Legislation**

(...)

#### **13. Prohibition against contemporaneous pile driving work at the Puttgarden and Lolland work harbours**

The project proponents must ensure that pile driving work is not carried out at the same time at the Puttgarden and Lolland work harbours.

The pile driving activities for the Puttgarden construction harbour must – as promised by the project proponents in this regard – be carried out outside of the sensitive mating season of the harbour porpoises (between 1 June and 30 September of each year).

#### **14. Number of permitted work areas**

Work may not be carried out at the same time in more than two work areas within the entire marine area (Fehmarnbelt).

Work may not be carried out at the same time in work areas G3 and G4 located on the "Fehmarnbelt" Natura 2000 site (cf. attachment 27.1 and attachment 27.2, sheet 3 to 5); work may only be carried out in one work area on the "Fehmarnbelt" Natura 2000 site at any one time.

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### 15. Bypassing the "Adlergrund" Natura 2000 site and the "Bay of Pomerania" EIA area

The transportation journeys to and from the Fehmarnbelt Fixed Link construction site in connection with the sand extraction activity at "Rønne Banke" must be undertaken in such a manner as to largely bypass the "Adlergrund" Natura 2000 site, DE 1251-301, and the "Bay of Pomerania" SPA, DE 1552-401. The distance to the aforementioned Natura 2000 sites must be at least one nautical mile (1 nm).

The project proponents must monitor the position of the ships in question in real time via AIS (Automatic Identification System) as part of their ECI responsibilities (attachment 12, annex I A, measure sheet 8.8 VFFH). The plan approval authority must be kept informed of their compliance with this obligation on a monthly basis.

### 16. Sediment spill rates

The maximum sediment spill rates indicated in Table 8.2-1 of measure sheet 8.2 M (attachment 12, annex IA to the LCP) for the individual zones and according to season and month must be observed.

The sediment spill rates must be continuously measured and compared with the stipulated threshold criteria. In the event that the sediment spill rates approach the mandatory upper thresholds, measures to manage the rate of sediment spill must be initiated without delay. Where the stipulated maximum sediment spill rates are exceeded, the construction works must immediately be discontinued. The plan approval authority, the Ministry of Energy, Agriculture, the Environment, Nature and Digitalization (Ministerium für Energiewende, Landwirtschaft, Umwelt, Natur und Digitalisierung – MELUND) and the Federal Agency for Nature Conservation (Bundesamt für Naturschutz – BfN) must be kept informed of the degree of compliance with sediment spill rates on a monthly basis (cf. no. 22 of this item).

### 17. Environmental construction inspection (ECI)

Environmental construction inspection or ECI (Umweltbaubegleitung - UBB) tasks must be undertaken by appropriately trained specialist personnel, for the purposes of preparing, witnessing and documenting the implementation of the project in accordance with the requirements to which the approval is subject, and in order to ensure the execution of the construction works in accordance with the relevant statutory regulations and provisions pertaining to environmental protection and nature conservation with regard to all EIA factors (cf. attachment 22.8 and annex I.B, concept-sheet 22.8).

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The project proponents must ensure that the environmental construction inspection department is involved in any preparatory measures which could have an adverse impact on EIA factors and is able to carry out its pertinent advisory and witnessing tasks.

(...)

### 19. Limitation of underwater noise on the "Fehmarnbelt" Natura 2000 site

The project proponents are hereby ordered, by way of damage mitigation measure, to ensure that, in the period from 1 June to 30 September of each year, any construction works are carried out such that a broadband noise level of >140 dB re 1  $\mu$ Pa is generated in no more than 1% of the protected area on the "Fehmarnbelt" Natura 2000 site (GGB DE 1332-301). This will comprise all works required for the construction of the tunnel structure [including the construction of the (dredged) tunnel trench and the transportation, sinking, mounting and backfilling of the tunnel elements].

Suitable measures must be taken to reduce the noise level should the threshold of 140 dB re 1  $\mu$ Pa (broadband noise level) be exceeded in more than 1% of the protected area. In such cases, the works being carried out must be discontinued where there are no other means of ensuring that the threshold criteria are not exceeded.

Any noncompliance with the threshold criteria which is verifiably due to the activity of individual ships passing through the areas in question, and not to the construction works being carried out by the project proponents, will not be taken into account in this regard.

The project proponents must monitor and document their compliance with the threshold criteria in real time throughout the construction process and, on their own initiative, provide the plan approval authority and the BfN with the results of these witnessing activities in the form of weekly status reports.

The project proponents must submit a concept for the specific aspects of the form to be taken by the measurements and the evaluation, presentation and communication thereof, to be agreed upon with the plan approval authority and the Federal Agency for Nature Conservation, no later than 18 months after the plan approval decision takes effect and in any case before the physical works start date.

(...)

**21. Noise protection concept with regard to underwater noise**

The noise protection concept (attachment 22.5 and concept sheet 22.5 of annex IB to the LCP) must be further specified or supplemented in the detailed concept to take account of the following aspects, in particular:

- In the event that the noise protection threshold criteria are exceeded, the pile driving activities must be adjusted in such a manner as to ensure that the threshold criteria to be observed are not exceeded and/or suitable noise reduction measures (e.g. bubble curtains) must be implemented. The technical options which may be exercised and for which provision has been made with a view to minimising noise emissions must be described.
- Upon the commencement of the pile driving work, i.e. during the pile driving for the first 30 sheet piles, the noise level of the construction works must be measured. Should measurements taken during the course of the pile driving works reveal any nonconformity with the noise-related forecasts, noise minimisation measures must be implemented (see foregoing).
- With regard to the ramp-up procedure, the meaning of "longer interruptions which render a new ramp-up procedure necessary" must be specified.
- The detailed concept must also contain information on the methods employed to ensure compliance with the threshold criteria stipulated in requirement no. 19 (cf. Section 2.2.4 No. 19) of 140 dB re 1 µPa (broadband noise level) and on the means of substantiating such compliance.
- The detailed concept must indicate the precise manner in which the "Measurement regulations on underwater noise measurements" ("Messvorschriften für Unterwasserschallmessungen", issued by the Federal Maritime and Hydrographic Agency (Bundesamt für Seeschifffahrt und Hydrographie – BSH), 2011) will be implemented in the context of the Fehmarnbelt project.

The project proponents must further specify or supplement the detailed concept addressing the noise protection concept with regard to underwater noise to take account of these aspects, and to coordinate with the competent authorities (MELUND, BfN). The results of this coordination must be submitted to the plan approval authority, which reserves the right to make other stipulations in this regard.

**22. Concept for the management and control of sediment spills**

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The concept for the management and control of sediment spills (attachment 22.6 and concept sheet 22.6 of annex IB to the LCP; cf. no. 9 of this item with regard to sediment spill rates) must be further specified or supplemented in the as yet still outstanding detailed concept to take account of the following aspects, in particular:

- The investigation methodology/ techniques (e.g. the equipment used, transect lengths, precise points in time) must be specified,
- The measurement methods, model systems, analytical tools, electronic inventory recording and reporting systems must be described and clearly depicted,
- References supporting key assumptions made (e.g. slow flow rates in the Fehmarnbelt, formation of a clearly defined sediment plume) must be supplied,
- In the event that the maximum sediment spill rate to be observed is exceeded, the specific technical measures for ensuring compliance with the threshold criteria must be described.

Furthermore, a clearly comprehensible description of the process, including the measurement and evaluation tasks, data and information flows and possible courses of action to ensure compliance with the sediment spill rates, must be provided and a link must be drawn to construction logistics (attachment 27) and the stipulated work areas [in particular, chapter 3.1.3 (dredged) tunnel trenches] in attachment 27.1 and attachment 27.2, sheet 3 [description of the procedure for the excavation of the (dredged) tunnel trench]. The measures which may be taken to manage sediment spills must be specified. The detailed concept must be agreed upon with the competent authorities (MELUND and BfN) and the results of this coordination must be submitted to the plan approval authority, which reserves the right to make other stipulations in this regard.

The overviews of the evaluation of sediment spill to be prepared during the implementation of the construction measure must be submitted to the plan approval authority and the MELUND or the BfN on a monthly basis.

### 23. ECI concept for the marine area and the Fehmarn land area (attachment 22.8)

The environmental construction inspection concept (attachment 22.8 and concept sheet 22.8 of annex IB to the LCP) must be further specified or supplemented in the detailed concept to take account of the following aspects, in particular:

- The HSE concept and the Natura 2000 impact assessment for the "Fehmarnbelt" Natura 2000 site (see item 1. III. 4.3.1 of this decision in this regard) must be supplemented accordingly in the ECI concept.

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- The ECI department must also be assigned the task of supervising the technical implementation of the light management concept in the marine area.
- The avoidance measures contained in the HSE concept (cf. item 2.2.9, no. 2) must be supplemented in the detailed ECI concept. Provision must be made to ensure the monitoring of measures for the prevention of material contamination in the marine area.
- Should the threshold criteria be exceeded, the individual responsible for monitoring compliance must inform the ECI department and countermeasures must be initiated or adjustments made to the construction process.
- Authority to issue instructions must be granted in the case of a direct threat of environmental damage or noncompliance with threshold criteria or preventative or mitigating measures (attachment 22.8, p. 13 / 4th dash and concept sheet 22.8, p. 57).
- The point at which a direct threat of environmental damage will be deemed to exist, thereby exceptionally conferring direct authority to issue instructions upon the ECI department (where applicable, also upon the individual ECI specialists), must be defined (cf. attachment 22.8, p. 13, and concept sheet 22.8, p. 58). This will apply, in particular, in the case of compliance with thresholds (pile driving noise) and in connection with the prevention of bird collisions and material runoff.
- The detailed concepts must contain rules governing the procedure for notifying the plan approval authority of any nonconformity with the approval design and for identifying those nonconformities which must be notified in this manner, or the procedure for involving the relevant specialist bodies.

Furthermore, with regard to the ECI, the following aspects must be supplemented or further specified with regard to the marine area:

- indication of criteria for the compulsory involvement of ECI specialists (above all, with regard to light and underwater noise) and additional ECI species specialists (cf. attachment 22.8: p. 17–18),
- the ratio of ECI specialists to ECI generalists, and
- authority to issue instructions on the part of the ECI specialists.

The detailed concept as a whole must be agreed upon with the competent authorities (MELUND and BfN) and the results of this coordination must be submitted to the plan approval authority, which reserves the right to make other stipulations in this regard.

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Note: The plan approval decision comprises, among other things, extensive requirements aimed at ensuring the safety and ease of shipping traffic in the Fehmarnbelt in order to avoid accidents and thus indirectly also precluding cross-border environmental impacts. The measures to be taken during the marine construction activities comprise, among other things, the establishment of a joint German–Danish Vessel Traffic Service Centre, the establishment of work areas to be closed to shipping through traffic, the preparation and implementation of an identification concept for the work areas and the through-shipping areas, the establishment of a work vessel coordination centre, the provision of shipping safety vessels and the like.

...)

### **B. Statement of Grounds:**

(...)

### **II. Appraisal from a Procedural Law Standpoint**

(...)

### **9. Cross-border Participation in Accordance with the UVPG**

The cross-border environmental impact assessment procedure was conducted in accordance with the Environmental Impact Assessment Act (Umweltverträglichkeitsprüfungsgesetz – UVPG) in the version in force until 16 May 2017 (UVPG (unamended version)), by means of which Germany has incorporated the stipulations of the UNECE Protocol on Strategic Environmental Assessment to the Convention on Environmental Impact Assessment in a Transboundary Context in accordance with the Espoo Convention and also the provisions of EU law governing the implementation of environmental impact assessments. Given that the documents required pursuant to Section 6 of the UVPG (unamended version) were submitted before 17 May 2017, the cross-border participation was also subject to the version of the UVPG in force prior to this date.

#### **9.1. *German Notification Procedure, Cross-border Notification***

The geographical location of the Fehmarnbelt Fixed Link in the Baltic Sea resulted in the decision to include all Baltic Sea-adjacent states, as well as Norway, being situated on the periphery of the Baltic Sea, among the neighbouring states to be notified at an early stage in the context of the cross-border EIA. It was therefore anticipated that the

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following 10 states would be impacted by the project: Germany and Denmark as the parties of origin, as well as Sweden, Finland, Norway, Poland, Latvia, Lithuania, Estonia, Poland and Russia as affected states.

The German cross-border notification procedure relating to the German part of the project was carried out concurrently with the domestic scoping in 2010. Estonia, Finland, Denmark, Lithuania, Latvia, Norway, Poland, Russia and Sweden were notified of the environmental impact assessment concept for the proposed project by way of notification letter in the English language dated 21 June 2010 in accordance with the first and second clauses of Section 8(1) of the UVPG (unamended version) (commensurate with Article 3 of the Espoo Convention and Article 7 of the EIA Directive). The Danish authority, representing the party of origin Denmark, concurrently issued a corresponding letter of notification with regard to the Danish part of the project which was subject to approval.

The affected states were provided with English, Danish and Polish translations of the scoping report of June 2010 and a summary of the scoping report of June 2010, also translated into all of the national languages of the affected states, and given the opportunity to submit statements, communicate the findings of public participation measures undertaken at the national level and decide whether they wanted to participate in the ongoing EIA procedure by 6 September 2010.

They were made aware of the domestic scoping meeting held on 25 August 2010 and were given until 20 July 2010 to decide whether they wished to participate in the scoping procedure.

Statements were received from Finland, Norway, Poland, Sweden and Denmark, with these states indicating their desire to continue to participate in the EIA consultation procedure.

Estonia, Latvia and Lithuania merely requested that they be kept informed of events. None of the affected states attended the domestic scoping meeting.

The statements of the affected states with regard to the environmental impact aspects were taken into consideration in the determination of the extent of the assessment to be carried out pursuant to Section 5 of the UVPG (unamended version) with regard to the content and scope of the documents on the environmental impacts of the project to be furnished in accordance with Section 6 of the UVPG (unamended version). These were submitted to the project proponents on 23 February 2012.

### *9.2. German Consultation Procedure, Cross-border Participation*

Pursuant to the third and fourth clauses of Section 8(1) of the UVPG (unamended version) in conjunction with the first clause and the second clause, items 1 to 3 of

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Section 9a(1) and Section 9a(2) and (3) of the UVPG (unamended version), the formal procedure for the participation of the states taking part as a result of the notification procedure was initiated by means of a consultation letter in the English language dated 4 April 2014. Denmark, Sweden, Norway, Finland and Poland were requested to carry out the participation procedure within their individual territory in accordance with their national rules and regulations and to arrange for the public disclosure of the participation documents submitted in the period from 5 May 2014 to 5 June 2014, with the objection period expiring on 3 July 2014. The Baltic states were notified accordingly, as requested.

The participation document required pursuant to Section 6(3) of the UVPG (unamended version) comprised a translation of the "Non-Technical Summary of the EIA – Annex 1 to the Explanatory Report with regard to the German Plan Approval Document" and a translation of the "Excerpt from Attachment 1 to the Explanatory Report – Chapter 3.6 – Comparison of Main Solutions – Selection of Alignment". Following prior consultation with the participating states, the participation documents were translated into Polish, English and Danish.

The five participating states submitted their statements to the plan approval authority by the middle of July 2014. They did not raise any private objections in the context of the procedure. The statements were forwarded to the project proponents. The project proponents took account of the documents received in connection with both the cross-border and the domestic EIA procedure in undertaking the subsequent plan revisions.

In the case of the first plan revision on the basis of the documents dated 3 June 2016, the formal procedure for the participation of the participating states was once again initiated by means of a consultation letter in the English language dated 24 April 2016 in accordance with the third and fourth clauses of Section 8(1) of the UVPG (unamended version) in conjunction with the first clause and the second clause, items 1 to 3 of Section 9a(1) and Section 9a(2) and (3) of the UVPG (unamended version), and the concurrent initiation of the domestic German plan revision procedure. Denmark, Sweden, Norway, Finland and Poland were requested to carry out the participation procedure within their individual territory in accordance with their national rules and regulations and to arrange for the public disclosure of the participation documents submitted in the period from 12/07/2016 to 12/08/2016, with the objection period expiring on 26/08/2018. The Baltic states were notified accordingly, as requested.

The participating states submitted their responses and statements to the plan approval authority by the end of September 2016. Once again, they did not raise any private objections in the context of this plan revision procedure.

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No additional steps were required in connection with the cross-border participation procedure for the second plan revision on the basis of the documents dated 13 December 2017, as well as the plan amendments undertaken November 2018, as the cross-border participation went hand in hand with a public participation procedure for which no such steps were necessary, as stated above.

### *9.3. Notification of results, announcement of final decision*

The statements of the states participating in the cross-border EIA procedure following on from the notification procedure (2010) were taken into consideration by the project proponents in their development of the environmental impact study and the other application documents for the plan approval procedure, the submission of which triggered the initiation of the formal plan approval procedure in 2013/2014.

The participating states submitted statements with regard to the cross-border EIA consultation procedure conducted in Germany in 2014 concurrently with the initial public disclosure and participation. These were taken into consideration by the project proponents in the amended plan revision documents, on the basis of which a new public procedure was conducted in 2016 concurrently involving the participating states in the context of a second consultation procedure. No concerns were raised with regard to the plan revisions.

The decision with regard to the viability of the project stipulates, in Section 2.2.4, extensive measures intended to ensure the environmental compatibility of the approved project by means of avoiding or minimising environmental impacts.

The participating states will receive final notification on the approval decision with regard to the project, including the statement of grounds and the information of the right of appeal, concurrently with the announcement at the domestic level of the plan approval decision together with the approved project plan, in accordance with Section 8(3) of the UVPG. The specified Baltic states will again be notified accordingly.

### **III. Appraisal from a Substantive Law Standpoint**

(...)

## **2. General Questions Relating to Environmental Documentation, Methodology, Underlying Data, Stocks, Description and Assessment of**

**Environmental Impacts in Accordance with Sections 11 and 12 of the UVPG  
(unamended version)**

(...)

**2.6.1. Summary of Environmental Impacts in Accordance with Section 11 of the  
UVPG**

(...)

11. Cross-border environmental impacts

The following chapter describes the cross-border impacts of the section of the Fehmarnbelt Fixed Link located on German territory and within the German Exclusive Economic Zone (EEZ).

This presentation is based on the statements made by the project proponents with regard to impacts extending beyond the border between the parties of origin (Germany and Denmark) and also beyond the borders between the parties of origin and their neighbouring states in the EIA (attachment 15) for the Fehmarnbelt Fixed Link on both German and Danish territory. All states which share a border with one of the two parties of origin and those states which, while they do not share a border with them, fall within the area impacted by the project are deemed to be neighbouring states. The following neighbouring states are of relevance for the purposes of the Fehmarnbelt Fixed Link: Sweden, Poland, Finland, Estonia, Latvia, Lithuania, the Russian Federation and Norway.

Environmental factor human beings, including human health: Any impacts on the environmental factor human beings on Fehmarn will not extend beyond the island. Possible impairments affecting the marine area include impairments due to losses or restrictions, noise and visual disturbances impacting water sports areas and the impairment of angling activity as a result of the loss or impairment of fishing grounds. These effects will predominantly affect areas along the coastline and therefore will not be of a cross-border nature. It is conceivable that the area near the border to Denmark could be subject to cross-border impacts affecting angling activity and water sports. However, numerous alternative locations for water sports and deep-sea angling activity exist on both the Danish and the German side of the border.

Environmental factor soil: Any impacts on the environmental factor soil on Fehmarn will not extend beyond the island. In the marine area, the seabed morphology and sediment may be subject to cross-border impacts as a result of increased

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sedimentation due to sediment spills caused by excavation work and in connection with the backfilling of the seabed in the construction area. Sediment spills will result in cross-border deposits in the Arkona Basin on Swedish territory or within the Swedish EEZ, as the case may be. Such deposits will not exceed 1 mm in size over a period of six years and as such may be viewed as negligible in light of the natural rate of sedimentation of 2 mm/year.

The possibility of any sedimentation extending beyond the border between Germany and Denmark will be minimal, however it cannot be ruled out in the event of fast currents. With regard to the sedimentation which will be triggered on both the German and the Danish side by the Fehmarnbelt Fixed Link project as a whole, the thickness of the sediment deposits in the area of the crescent-shaped seabed profile formations on Danish territory and within the Danish EEZ is expected to amount to 10–15 mm, and the severity of impairments resulting from the project under consideration here in conjunction with the project relating to the Danish side is deemed to be mid-level. There will not be any cross-border impacts resulting from sedimentation in the remaining neighbouring states. Impacts on coastal morphology will solely affect areas along the coastline and will not be of a cross-border nature.

Environmental factor water: Any impacts on the environmental factor water on Fehmarn will not extend beyond the affected bodies of water and will not cross borders. In the marine area, the area losses and impairment of function in relation to the hydrographical regime as a whole will solely affect the areas along the coastline. There will not be any relevant impacts on the hydrographical regime extending into the aforementioned neighbouring states or beyond the border between Germany and Denmark. The possibility of any impacts on the hydrographical regime of Norway can be entirely ruled out. The impact of any removal or discharge of water will at most be local rather than cross-border in nature. Any impairment of function with regard to water quality as a result of an increase in suspended sediment and an associated reduction in water transparency will be limited to the intervention areas and their immediate vicinity. With regard to the increase in suspended sediment which will be triggered on both the German and the Danish side by the Fehmarnbelt Fixed Link project as a whole, it has been ascertained that a reduction in water transparency in the local area of up to 50% will be experienced on Danish territory and within the Danish EEZ, namely along the Lolland coastline and in the Rødsand-Lagoon. The reduction in water transparency in German waters will be less than 8% (no impairment of function) and will be limited to the area along the coastline. No impacts on water transparency in the Central Baltic Sea are expected to result from an increase in suspended sediment. Any cross-border impacts will be, at most, minor.

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Environmental factor animals: Any impacts on the environmental factor animals on Fehmarn, except in the case of migrating birds and bats, will be limited to the island and will not cross borders. In light of the planned minimisation measures, the construction activity is expected to result in at most minor impairments affecting bird migration. However, there is a traffic-related risk of collision for migrating bats in the illuminated ramp areas and the tunnel portals. Any adverse impacts in this regard will be minimised by means of the adjustment of the operational lighting in the tunnel portal area. Given that this is not expected to have any effect on the bat population, any impacts on bat migration extending beyond the border between Germany and Denmark may be categorised as immaterial. There will be no cross-border impacts on bat migration in the other neighbouring states.

Cross-border impacts on planktonic flora and fauna may result from an increase in sedimentation and suspended sediment in the wake of sediment spills.

With regard to the sedimentation which will be triggered on both the German and the Danish side by the Fehmarnbelt Fixed Link project as a whole, an area spanning 76 ha (dredged tunnel trench: 16 ha, Rødsand-Lagoon: 60 ha) is expected to be subject to a temporary impairment which could lower the survival rate for benthic stages of zooplankton, in particular copepod eggs.

With regard to the increase in suspended sediment which will be triggered on both the German and the Danish side by the Fehmarnbelt Fixed Link project as a whole, it has been ascertained that such increase in suspended sediment will give rise to temporary impairments for planktonic flora and fauna solely on Danish territory, namely along the Lolland coastline and in parts of the Rødsand-Lagoon. The temporary impairments have been quantified on the basis of the following modelled parameters: chlorophyll a content (reduction in the Rødsand-Lagoon of max. 10%, along the Lolland coastline: maximum 3–4%), phytoplankton biomass (10% reduction in the western part of the Rødsand-Lagoon, maximum reduction along the Lolland coastline: 1–4%) and primary production (along the alignment corridor near the Lolland coastline: up to 25%, viewed over the entire area: maximum 2–3%).

No impacts extending beyond the borders between Germany, Denmark and their neighbouring states are expected to arise.

Benthic fauna may be subject to adverse cross-border impacts due to an increase in suspended sediment and sedimentation as a result of construction activity. The

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increase in suspended sediment which will be triggered on both the German and the Danish side by the Fehmarnbelt Fixed Link project as a whole will give rise to impairments on the Danish side, namely in the shallow waters along the Lolland coastline, to a predominantly minor or at most mid-level extent. Increased sedimentation and a resultant reduction in biomass will also predominantly result in only minor impairments. Major impairments will arise solely within the intervention area and its immediate vicinity.

No adverse cross-border impacts are expected to extend into neighbouring states.

Any impacts of the project affecting fish will largely be limited to the Fehmarnbelt. Impairments resulting from suspended sediment and sedimentation in the construction phase will above all affect fish communities/species during the immobile stages. Most of the key species observed exhibit pelagic eggs and larvae, which are distributed throughout large parts of the investigation area and will therefore be impaired to only a minor degree. Substrate-spawning fish (species from shallow water communities) will be affected to only a minor degree. Any impairment affecting the ability to search for food or migration will likewise be only minor in its extent.

Any construction- and operation-related impairments affecting habitats and/or functional spaces (including in the migration context) as a result of noise or indirect impacts (e.g. due to the impairment of macrophytes) will be minor or nonexistent with regard to all species.

Conceivable cross-border impacts would be impairments affecting migrating fish species. This would involve the impairment (due to noise and suspended sediment) of the migration of spring-spawning herring from their spawning grounds near Rügen to their feeding grounds in the Skagerrak strait. This could theoretically in turn compromise the Norwegian and Polish populations. Noise and suspended sediment also impede the spawning migration of cod and compromise those of their developmental stages occurring in local waters, which could theoretically affect cod recruitment in Swedish and Polish waters. Impacts from noise and suspended sediment on whiting migrating from the areas where their young are raised in the Baltic Sea back to the North Sea could affect the whiting population outside the project area. With regard to the suspended sediment and noise which will be triggered on both the German and the Danish side by the Fehmarnbelt Fixed Link project as a whole, the extent of the impacts is deemed to be local and at most minor.

Possible impacts on the environmental factor fish outside of the Fehmarnbelt which cannot be ruled out but which may be considered insignificant include the

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consequences of the sedimentation, considered to be insignificant, occurring in the central parts of the Bay of Mecklenburg and the Arkona Basin, both important spawning areas for flatfish and cod. Although the possibility of an impairment of the eggs and larvae of these species cannot be ruled out, it is considered to be low-level.

Harbour porpoises and seals (harbour seals and grey seals) – marine mammals present in the Fehmarnbelt – are at risk of impairment as a result of noise, footprint (land use), changes in their habitat and barrier effects.

Noise-related impairments will arise during the construction phase and may extend beyond the border between Germany and Denmark. They will affect only a small number of seals, which search for food within the affected area to only a limited degree. Only a very small proportion of the local summer/winter populations of harbour porpoises will be affected by the noise. Noise will therefore not result in any impairment of the population of marine mammals.

There will be some loss of habitat as a result of construction and installation activity, most predominantly in the area along the coastline. The impairments due to the footprint (land use) will affect only a very minor segment of the local harbour porpoise population in the Fehmarnbelt and/or the overall population of the Kattegat area, the Belt Sea and the western section of the Baltic Sea. The extent of any impairments affecting the seal population as a result of habitat loss and of those affecting marine mammals due to barrier effects and changes in their habitat in the Fehmarnbelt will be minor (e.g. changes in habitat as a result of the impairment of the fish populations which serve as a food source for harbour porpoises). No impairments with an effect on the harbour porpoise and seal populations are therefore expected to occur.

There will be no cross-border impacts on marine mammals extending beyond the German and Danish territories.

The immersed tunnel will therefore not result in any impairment of the population of the environmental factor resting birds, and there will thus be no significant impacts extending beyond the borders between Germany, Denmark and their neighbouring states.

Environmental factor plants: Any impacts on the environmental factor plants on Fehmarn will be limited to the island and will not cross borders. In the marine area,

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an increase in suspended sediment and sedimentation may give rise to cross-border impairments affecting plant communities. The increase in suspended sediment and sedimentation which will be triggered on both the German and the Danish side by the Fehmarnbelt Fixed Link project as a whole will give rise to predominantly minor impairments, but also in small areas to mid-level and severe impairments, on the Danish side, namely along the Lolland coastline and in the Rødsand-Lagoon.

By way of conclusion, there will be no impacts on benthic flora and/or benthic habitats extending beyond the borders between Germany, Denmark and their neighbouring states.

Environmental factor biodiversity: The assessment of impacts on the environmental factor biodiversity (Fehmarn, marine area) is based on the ascertained impacts on the individual biotic environmental sub-factors. The assessment of the impacts on biodiversity is reflected in the impact forecasts for the individual environmental sub-factors, and is accordingly accounted for in that context. The possibility of any impairment of biodiversity extending beyond the border between Germany and Denmark which would be of relevance for EIA purposes can be ruled out. There will also be no cross-border impacts on biodiversity in neighbouring states.

Environmental factor landscape: Any impacts on the environmental factor landscape on Fehmarn will be limited to the island. In the marine area, any impairments will solely affect the area along the coastline. The possibility of any cross-border impacts can be ruled out.

Environmental factor climate/air: Impacts on air quality resulting from depositions of particulate matter and harmful substances have been assessed. Threshold criteria (NO<sub>2</sub>, PM<sub>10</sub> and PM<sub>2.5</sub>) will be exceeded in the operation phase only in the immediate vicinity of the portals. There will be no impacts extending beyond the borders between Germany, Denmark and their neighbouring states.

Cultural heritage and other material assets: No impairments are expected to arise on either the German or the Danish side in connection with the cultural heritage assets in the form of the historical wrecks in the vicinity of the alignment corridor or with regard to the material asset in the form of the underwater cable as a result of the work harbour off Lolland. No extensive impacts on cultural heritage and other material assets are expected to arise in light of the tight geographical limits which would apply to any such potential effects. There will be no impacts with regard to the

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environmental factors cultural heritage and other material assets extending beyond the borders between Germany, Denmark and any neighbouring states.

Interactions: Any interactions in the land areas will not cross borders. The nature of the medium of water of which the Fehmarnbelt is composed means that there will be diverse interactions within the environmental factors and between them and neighbouring and/or separate ecosystems. Any such interactions have been analysed and taken into account in the impact assessments for the environmental factors in question. There will be no cross-border interactions in neighbouring states.

### 2.6.2. Assessment of Environmental Impact on Environmental Factors in Accordance with Section 12 of the UVPG

(...)

#### Summary assessment of the environmental impacts

The results of the assessment of the environmental impacts of the project indicate that, taking account of the above-mentioned preventative measures, no impairment of the environmental factors biodiversity, climate, air, cultural heritage and other material assets is to be expected. With regard to the environmental factor water, the construction of superstructures will result in significant impairments affecting the land area.

Significant impairments affecting the environmental factor soil in both the land area and the marine area are to be expected as a result of the extensive footprint (land use) for construction and installation-related purposes. The environmental factor plants will be subject to significant adverse environmental impacts caused by construction, installation and operational activity in both the land area and the marine area. Significant impairments are furthermore expected to affect the environmental factor animals in the land area (breeding birds, amphibians, reptiles, dragonflies). To err on the side of caution, it may be assumed that in the marine area any impairments potentially arising at the same time during the construction phase (affecting, in particular, marine mammals, resting birds, fish) which may appear insignificant when considered on an individual basis will constitute significant impairments when viewed in aggregate. The landscape around the island of Fehmarn will be subject to significant impairments as a result of the project.

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Avoidable impairments will be avoided by means of the mitigation/prevention measures described in the LCP and the measures stipulated in the ancillary provisions; the remaining impairments will be addressed by means of the proposed compensatory and restitution measures. It will not be possible to effect full compensation in kind for the impairments affecting the marine area. With regard to addressing the remaining need for compensation by means of restitution payments, see Regarding 1 III 3 3.6 (marine) and 3.8 below.

Unavoidable impairments include the increase in the disruptive effect of operational noise in the living environment in Marienleuchte, Todendorf and Bannesdorf. The fact that a large section of the living environment in Marienleuchte, in particular, will be affected will result in significant adverse impacts for the environmental factor human beings, including human health.

The project under consideration here in conjunction with the project to be implemented on Danish territory and within the Danish EEZ may give rise to cross-border impacts on Danish territory and within the Danish EEZ. The assessment of the viability of the section of the Fehmarnbelt Fixed Link located on Danish territory and within the Danish EEZ will be governed by the provisions of Danish law. The German and Danish sections of the Fehmarnbelt Fixed Link have been subject to separate plan approval procedures involving separate environmental impact assessments. The national environmental impact studies were prepared on the basis of a cross-border investigation area. Even the spatial sensitivity analysis (attachment 17) for the Danish and German territories, including the Fehmarnbelt, was prepared on a transnational basis. This approach ensured that the project has been planned with cross-border considerations in mind and the environmental impacts examined in the overall geographical context. The project under consideration here will not give rise to significant cross-border impacts extending into other neighbouring states.

The possibility that the project may have significant adverse impacts on Natura 2000 sites can be ruled out (reference is made to item 1. III no. 4).

The project is in line with the environmental quality objectives as formulated in the Water Framework Directive, the environmental objectives as formulated in the Marine Strategy Framework Directive and the management objectives stipulated in the Water Resources Act (Wasserhaushaltsgesetz – WHG) (reference is made to item 1. III nos. 7 and 9).

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The specifications of, in particular, the Federal Nature Conservation Act (Bundesnaturschutzgesetz – BNatSchG), the State Nature Conservation Act (Landesnaturschutzgesetz – LNatSchG), the Federal Soil Protection Act (Bundesbodenschutzgesetz – BBodSchG), the Water Resources Act (Wasserhaushaltsgesetz – WHG) and the State Water Act (Landeswassergesetz – LWG), the Act Governing the Preservation of Sites of Historic Interest (Denkmalschutzgesetz) and the relevant EU Directives (the Habitats Directive, the Birds Directive, the Water Framework Directive), have been taken into account.

As a whole, the project will result in significant impacts on and thus impairments affecting the environmental factors stipulated in Section 2(1) of the UVPG, or significant impairments affecting nature and the landscape within the meaning of Section 14 of the BNatSchG. Avoidable impairments will be avoided; the remaining impairments will be addressed – to the greatest extent possible – by means of compensatory and restitution measures. In the case of compensation requirements which cannot be met in substantive terms, the project proponents have made provision for a compensation payment.

(...)

### **C. Right of Appeal**

An action appealing this plan approval decision may be brought within one month of its notification.

Where no notification of the decision has been made on an individual basis, the time of notification will be deemed to be the end of the final day of the disclosure period.

Any such action should be brought before the

Bundesverwaltungsgericht  
(Federal Administrative Court),  
Simsonplatz 1,  
04107 Leipzig.

It should be brought against the Ministry of Economic Affairs, Transport, Employment, Technology and Tourism of the State of Schleswig-Holstein – Office for Plan Approval - Transport , Mercatorstraße 9, 24106 Kiel.

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The action must identify the plaintiff, the defendant and the relief sought. It should comprise a specific application.

The facts and evidence establishing the grounds for the action must be disclosed within a period of ten weeks after the bringing of the action. The Court will be entitled to reject any explanations and evidence put forward after the expiration of this deadline.

Each of the parties to the action must be represented by legal counsel in the proceedings before the Federal Administrative Court, except in the context of legal aid proceedings. This will also apply in the case of procedural steps for the initiation of proceedings before the Federal Administrative Court. The individuals who will be permitted to represent the parties as legal counsel in such proceedings are stipulated in Section 67(4) of the Code of Administrative Court Procedure (Verwaltungsgerichtsordnung – VwGO).

Kiel, 31 January 2019

Signed: Dörte Hansen

This text is a true and accurate translation of the attached document presented to me from German into English.

....., on 21 February 2019

Fay Brown

Certified Translator for the English Language, duly appointed and sworn by the President of the Regional Court of Würzburg

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