

# **Nord Stream 2**

**Espoo Consultation Sweden - Finland**

**Responses to Relevant Comments to the Espoo Report in the  
Statement from Finland**

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## 1 Introduction

The Espoo Convention defines a transboundary impact as “any impact, not exclusively of a global nature, within an area under the jurisdiction of a Party caused by a proposed activity the physical origin of which is situated wholly or in part within the area under the jurisdiction of another Party.”

Nord Stream 2’s Espoo Report addresses any potential transboundary impact on Finland that could be caused by a proposed activity taking place in the Swedish EEZ. In the framework of the Espoo consultation process for Nord Stream 2, Finland has provided a statement including comments to Nord Stream 2’s Espoo Report.

The Swedish Competent Authority for the Espoo Procedure has asked Nord Stream 2 AG to respond to relevant comments from Finland. This document provides the responses to these comments.

## 2 Proposed extension of Natura 2000 area to be considered

### Statement

The Uusimaa District Organisation of the Finnish Association for Nature Conservation states that the new harbour porpoise conservation area in Sweden should be taken into account during the Nord Stream 2 Gas Pipeline project.

### Answer

The proposal for an extended Natura 2000 area at Hoburgs bank and Norra Midsjöbanken became evident already during the consultation period for NSP2 in Sweden and has been considered during the planning and permitting process of the project. Transparent and appropriate assessments have been undertaken as part of the environmental documentation, and the conclusion was that there will not be any significant impact on these values or risk thereof.

The main reason for the proposed extended Natura 2000 area is the occurrence of harbour porpoises. The harbour porpoises not only dwells on the offshore banks but also in the areas in-between during certain periods of the year. When preparing the Swedish application and its Environmental Study (ES), as well as when supplementing the application, the potential impacts on harbour porpoises have been apparent in all assessments. These documents and assessments have taken note of the new information that has emerged in recent years regarding the distribution of harbour porpoises in the Baltic Sea (including results of the SAMBAH study) as well as recent literature on the sensitivity of marine mammals to underwater noise.

In the ES, the potential effects from NSP2 on harbour porpoises in the Swedish exclusive economic zone (EEZ) has been investigated and assessed by well renowned experts in the field (e.g. DCE at the University of Aarhus). The assessment considers all planned activities in the construction and operation phase, and is based on recent literature and modelling of sediment spreading, underwater noise etc. from the construction, along with the actual

experience and monitoring results from the construction of the existing Nord Stream pipeline system.

All the above assessments are apparent in the Swedish application documentation, in the Swedish permitting process material at the Ministry of Enterprise and Innovation as well as publicly available on the NSP2 website.

### **3 Impact on Harbour Porpoise in particular near Midsjöbanken**

#### **Statement**

The Finnish Ministry of Environment states that for the critically endangered Baltic Sea harbour porpoise, all underwater construction work, including that which produces noise, can have negative effects. Especially work near the Midsjöbanken area should be avoided, because this area is highly important for the protection of the Baltic Sea harbour porpoise population.

#### **Answer**

##### Conservation status of harbour porpoise

The critically endangered (and EU Annex II and IV) categorisation of harbour porpoise has been recognised in the determination of receptor importance applied in the Espoo assessment, as reflected through allocation of a “high” importance ranking to this species (Section 9.6.4.7). This importance level was then subsequently applied in the determination of the overall impact ranking (as outlined in Table 7-14 in Section 7.5).

##### Impacts on harbour porpoise including in the Midsjöbanken area

When preparing the Swedish application and its Environmental Study (ES), as well as when supplementing the application, the potential impacts on harbour porpoises have been apparent in all assessments. These documents and assessments have taken note of the new information that has emerged in recent years regarding the distribution of harbour porpoises in the Baltic Sea (including results of the SAMBAH study) as well as recent literature on the sensitivity of marine mammals to underwater noise.

In the ES, the potential effects from NSP2 on harbour porpoises in the Swedish exclusive economic zone (EEZ) has been investigated and assessed by well renowned experts in the field (e.g. DCE at the University of Aarhus). The assessment considers all planned activities in the construction and operation phase, and is based on recent literature and modelling of sediment spreading, underwater noise etc. from the construction, along with the actual experience and monitoring results from the construction of the existing Nord Stream pipeline system. It concludes that there will be no significant impacts on harbour porpoise.

In relation to underwater noise, the assessments identified that even when considering the highest potential underwater noise source from Nord Stream 2 in Swedish waters (i.e. rock placement, as there will be no munitions clearance in these waters, since the project has taken extra measures, though applying for a wide corridor that allows for routing around such objects), there is no risk of permanent hearing damage. Noise levels, which could potentially result in risk of onset of temporary hearing loss (usually lasting from minutes to

days), would only occur within 80 meters of rock placement activities. For this to materialise, however, the harbour porpoises would have to remain in that small area for a period of at least two hours. Since harbour porpoise will rather swim away than remain where intervention works is being carried out, such an occurrence is extremely unlikely. Further, the limited spatial extent and duration of any spot rock placement, if required, means that it will not create a barrier for porpoise movement, or constitute a large area to be avoided by them, and hence significantly affect energy expenditures.

Furthermore, in the vicinity of the Midsjöbanken area the Nord Stream 2 route is close to and parallel to the primary deep-water shipping lane route to/from the Gulf of Finland, where there were more than 8,000 large ship movements in 2014. Noise monitoring undertaken by the Swedish defence research agency (FOI) during Nord Stream construction indicated that underwater noise from pipe-laying and trenching was at similar levels to noise from other Baltic shipping activity. The noise produced by pipe-lay and trenching activities will thus not differ in a significant way to the underwater noise that the harbour porpoise already experience on a daily basis.

Nord Stream 2, pipe-laying is expected at an average daily speed of 2.5 km (but more likely closer to 4 km) per day, and trenching at a typical rate of 7 km (but up to 10km) per day or more. The vessels will move forward continuously which leads to a short period of disturbance for any particular area. Based on the above, disturbance from vessels involved in pipe-laying will last for up to 56 days for each pipeline inside the proposed extended Natura 2000 area.

In addition, the currently proposed scheduling of the construction activities within the proposed Natura 2000 site (SE0330380) is from late 2018 to early 2019, when the number of harbour porpoise present in this area is significantly less and there is no breeding.

Overall, the conclusion is that there will be no significant impact to harbour porpoise from Nord Stream 2, and the respective assessments for both current and proposed Swedish Natura 2000 sites concluded that there is no risk of significant impact to the species and habitats that support such species.

Impacts on the Baltic Sea harbour porpoise population due to construction activities in the Swedish EEZ, which could result in transboundary impacts can therefore be ruled out.

#### **4 Importance of appropriate Natura 2000 assessments**

##### **Statement**

The Finnish Ministry of Environment states that in the vicinity of the proposed pipeline route there are several important Natura 2000 sites designated as Special Protection Areas (SPA) and Sites of Community Interest (SCI) / Special Area of Conservation (SAC) by Germany and Sweden. These sites have a special importance beyond national borders throughout the Baltic sea since they are key wintering and staging sites or a large variety of waterfowl, sea birds and waders. This whole area is also the most important part of the Baltic Sea for the harbour porpoise population. Finland emphasises the importance of appropriate Natura 2000 assessments and of the mitigation measures presented in the EIA and underlines the need to take them fully into account in the permit procedures.

## **Answer**

### **Appropriate Natura 2000 assessment, mitigation and consideration in permitting of sites designated as SPAs, SCIs and SACs by Germany and Sweden**

In accordance with the requirements of the Habitats Directive, Nord Stream 2 AG has carried out Natura 2000 screening assessments and/or, where required, full Natura Assessments of all Natura 2000 sites (existing or proposed) which, based on: the features for which they were designated, the propagation characteristics of impacts arising from Nord Stream 2 to which such features could be sensitive and the location of the site, could potentially be affected by activities associated with the pipeline's construction or operation.

For *existing* Natura 2000 sites in German waters, full Natura 2000 Assessments were undertaken as part of the EIA process for those sites, which will be crossed by or are within 5 km of the Nord Stream 2 alignment.

For *existing* Natura 2000 sites in Danish and Swedish waters, the Natura 2000 screening assessment was undertaken as part of the national EIA process. These screening assessments determined whether there could be potential for significant impacts to be experienced by such sites.

For the *proposed* "Hoburgs Bank och Midsjobankarna" site, a consultation exercise was undertaken with the Swedish authorities and a separate supplementary report to the Swedish EIA was produced that specifically considered the potential implications of Nord Stream 2 construction and operation on the integrity of that site and its values.

The approach to Natura 2000 assessments described above included specific consideration of the function of Natura 2000 sites in Germany and Sweden as wintering and staging areas for a range of birds, and in supporting harbour porpoise.

Nord Stream 2 has committed to a range of mitigation measures as outlined in Chapter 16 of the Espoo Report, which will become contractual obligations for those implementing the project. Within relevant German Natura 2000 areas construction activities will not start prior to mid-May and will be complete by 31 December to minimise the potential for impacts on sea birds. In Sweden, Nord Stream has applied for a wide route corridor in order to increase the possibility of re-routing around munitions finds in the Natura 2000 area and therefore no munitions clearance is planned.

The Natura Screening and full Assessments including for all sites in German and Swedish waters will be subject to review by the appropriate agencies as part of the permitting process.

### **Recognition of importance of area for Harbour Porpoise**

In relation to harbour porpoise, the screening assessments (for existing sites in Sweden) full natural assessments (for existing sites in Germany) and supplementary study (for the proposed site in Sweden) of Natura 2000 sites designated for this species, drew on detailed studies relating to this species, undertaken by DCE at the University of Aarhus, who are recognised experts in this area. These assessments covered all planned activities during Nord Stream 2 construction and operation and considered, amongst others, the potential impacts on harbour porpoise arising from the predicted changes in underwater noise levels and in concentrations of suspended sediment and associated contaminants and nutrients. They were also informed by the monitoring of construction and operation of the

existing Nord Stream pipeline system. They concluded that there will be no significant impacts on harbour porpoise.

In relation to underwater noise, the assessments identified that even when considering the highest potential underwater noise source from Nord Steam 2 in Swedish waters (i.e. rock placement, as no munitions clearance is foreseen in these waters) including within the proposed Hoburgs bank och Midsjobankarna Natura site (SE0330380), there is no risk of permanent hearing damage. Noise levels, which could potentially result in risk of onset of temporary hearing loss (usually lasting from minutes to days), would only occur within 80 meters of rock placement activities. For this to materialise, however, the harbour porpoises would have to remain in that small area for a period of at least two hours. Since harbour porpoise will rather swim away than remain where intervention works is being carried out, such an occurrence is extremely unlikely. Further, the limited spatial extent and duration of any spot rock placement, if required, means that it will not to create a barrier for porpoise movement, or constitute a large area to be avoided by them, and hence significantly affect energy expenditures.

The activity with the greatest potential to cause underwater noise in German waters is suction dredging. As described above with respect to rock placement, harbour porpoise will tend to swim away from an area typically within 1 km of this activity. Underwater noise monitoring measured at distance of 1 km from Nord Stream recorded levels generally between 110 and 140 dB re 1  $\mu$ Pa i.e. comparable to the baseline situation. The thresholds for onset of permanent or temporary hearing loss temporary shift (203 and 188 dB re 1  $\mu$ Pa respectively) will not be reached beyond that distance. Consequently, it is extremely unlikely that risk of loss of hearing will occur.

As described in the Espoo Report noise levels from other activities have been shown to be too low to impact on harbor porpoise. Similarly, impacts arising from presence of vessels and sediment spill have been demonstrated to be not significant.

With respect to migration there are no studies of current harbour porpoise migration routes in the Baltic. However, in the adjacent waters of the Belt Seas, Kattegat, Skagerrak and the North Sea, satellite tracking of over 100 harbour porpoises have not indicated specific migration routes between sites or seasons. It is thus unlikely that the project would affect migration patterns.