



**Nord Stream**  
The new gas supply route for Europe

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## Section 4

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### **Environmental impact assessment procedure**

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## 4 Environmental impact assessment procedure

The national EIA procedure and the transboundary Espoo procedure for the Nord Stream project have been performed simultaneously. The Finnish national EIA procedure is applied to the 375 km section of the pipeline system that runs through the Finnish exclusive economic zone (EEZ). The transboundary Espoo procedure covers the entire 1,220 km long offshore pipeline system. Both procedures are described below.

Nord Stream AG has been active in informing about the project and consulting stakeholders in the context of the requirements of both national EIA legislation and the Espoo Convention. This process of informing and consulting will continue throughout the lifetime of the project and is part of the strategy for engaging interested and affected parties.

### 4.1 Transboundary Espoo procedure

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The Espoo Convention obliges states to notify and consult one another on all major projects listed in the Convention's Appendix 1 that are likely to have significant adverse transboundary environmental impacts. One of the proposed activities mentioned in that Appendix is large diameter pipelines. The Espoo Convention is signed and ratified by Finland.

#### 4.1.1 Espoo procedure for the Nord Stream project

The assessment activities for the Nord Stream project under the Espoo Convention began in spring 2006. The environmental authorities in Germany, Denmark, Sweden, Finland and Russia unanimously concluded at a meeting on 19 April 2006 that the Espoo Convention is applicable to this project.

The Espoo Convention defines the countries under whose jurisdiction the pipelines shall be built as 'parties of origin'. Parties to the Convention that are potentially affected are called 'affected parties'. Parties of origin are also considered to be affected parties (see Table 4.1). Finland, Sweden, Denmark and Germany have equal status within the Espoo Convention. Russia has signed but not ratified the Espoo Convention. Russia has been participating in meetings with the parties of origin and has announced that it would follow the agreement only within the limits of its national legislation. Estonia, Latvia, Lithuania and Poland are the other affected parties.

**Table 4.1.** Definition of parties for Nord Stream according to the Espoo Convention.

| Party according to Espoo Convention  | Country  |
|--|--|
| Parties of Origin = parties of the convention under whose jurisdiction the project is planned to be implemented  | Germany, Denmark, Sweden, Finland, (Russia*)                                     |
| Affected Parties = parties of the convention who may be exposed to transboundary impacts of the proposed project | Germany, Denmark, Sweden, Finland, (Russia*), Estonia, Latvia, Lithuania, Poland |

\*Russia has signed but not ratified the Espoo Convention

Since the start of the project, the parties of origin have met regularly. The first meeting was organised in Hamburg in April 2006. Fourteen meetings were conducted during the notification and documentation phase between 19 April 2006 and December 2008. The meetings were between all parties, between the parties of origin only and between the affected parties only (Estonia, Latvia, Lithuania and Poland). The most recent meeting was held in December 2008 in Zürich.

Each Party of Origin and Affected Party has one or several points of contact from different authorities or agencies. These are:

- Russia: Ministry of Natural Resources
- Finland: Ministry of the Environment
- Sweden: Swedish Environmental Protection Agency, Ministry of Environment and Ministry of Energy, Enterprise and Communications
- Denmark: Danish Ministry of the Environment, Agency for Spatial and Environmental Planning and Danish Energy Agency
- Germany: Federal Ministry for the Environment, Nature Conservation and Nuclear Safety, Bergamt Stralsund (Mining Authority Stralsund) and Bundesamt für Seeschifffahrt und Hydrographie (Federal Maritime and Hydrographic Agency)
- Poland: Ministry of Environment
- Lithuania: Ministry of Environment
- Latvia: Ministry of Environment
- Estonia: Ministry of Environment

Finland and Estonia have a bilateral agreement on environmental impact assessment in a transboundary context, where the principles of the Espoo Convention have been defined. There is a bilateral advisory EIA commission, which meets once a year. The bilateral agreement does not impose specific obligations on Finland, but Finland must ensure that Estonia will be informed about the Finnish national EIA.

Also other expert meetings have been organised during the process. For example, a meeting between Finland and Estonia was held in June 2007 with the participation of Nord Stream AG. Expert representatives from environmental and geophysical institutions in Finland and Estonia were present. In June 2007 the Federal Maritime and Hydrographic Agency (Bundesamt für Seeschifffahrt und Hydrographie – BSH) hosted two expert meetings in Hamburg, Germany, in the interest of establishing common standards for the investigations

and documentation. Thirty experts and scientists from the Baltic Sea coastal states and from non-governmental organisations attended the meeting.

#### 4.1.2 Applying the procedure and public consultations

The Espoo procedure began in November 2006 with a notification procedure. The notification period extended from November 2006 to February 2007 and began with the parties of origin (and Russia) simultaneously sending notification letters to all potentially affected parties. The letter was accompanied by a project information document (PID) “Offshore Pipeline through the Baltic Sea (November 2006)” /30/. The concerned parties disseminated the notification amongst their relevant authorities and conducted public consultations in accordance with national legislation and procedures.

During the notification period, Nord Stream AG received more than 190 comments via the national EIA authorities. Over 50 of the comments came from Finland. Comments have been addressed with in the national EIA and the Espoo report. Also a White Book of comments (“Stakeholders comments received during international consultation according to the Espoo Convention, Summaries and Responses”) was compiled /31/.

Nord Stream AG submitted an interim report “Project Information – Status of the Nord Stream pipeline route in the Baltic Sea” to the Baltic Sea coastal states in October 2007. The Ministry of the Environment in Finland published the document and made it available for participation of authorities and the public from 12 November until 21 December 2007. During that period, the Finnish authorities and members of the public submitted in total 23 statements in response to the interim report. The Ministry of the Environment submitted these opinions and statements to the other directly involved countries (Germany, Denmark, Sweden and Russia) and to Nord Stream AG. The document compiled by the Ministry of the Environment was signed on 18 January 2008.

Nord Stream AG submitted a second interim report “Project Information – Status of the Nord Stream route in Denmark and Germany, November 2008” to the Baltic Sea coastal states in November 2008. The Finnish Ministry of the Environment made the document available for public participation for authorities and the public from 8th of December 2008 until 9th of January 2009.

The results of the impact assessment of the entire offshore project area are compiled into the Espoo report (agreed between the parties to the Espoo Convention) /5/. The Espoo report addresses the whole project and its environmental impacts along the entire length of the pipeline (from Russia to Germany) as well as its transboundary impacts. Also the so called 0-alternative (non-implementation of the project) is described in the Espoo report. The Espoo report will be finalised at the same time as the national Finnish EIA. The public display of the procedures and participation possibilities for public, NGO's, authorities etc. for both the Espoo procedure and the Finnish national EIA are organised in parallel.

The procedure according to the Espoo Convention can be summarised as follows:

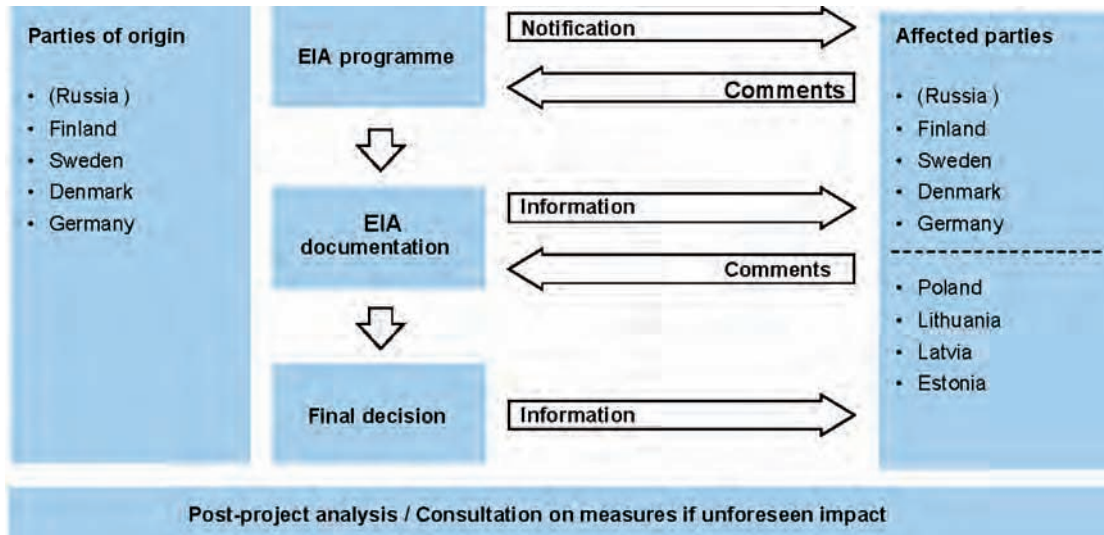


Figure 4.1. Procedure according to the Espoo Convention.

## 4.2 EIA procedure and participation in Finland

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### 4.2.1 Applying the EIA procedure

The need for assessing the environmental impacts of the Nord Stream project is based on the Finnish Act on Environmental Impact Assessment Procedure (468/1994, amendments 267/1999 and 458/2006). The Act on Environmental Impact Assessment Procedure is valid in the Finnish EEZ as referred to in Section 1 of the Finnish Act on the Exclusive Economic Zone (1058/2004). According to the Decree on Environmental Impact Assessment Procedure (713/2006), an EIA is required for pipelines with a diameter of more than 800 mm and a length of more than 40 km.

The main targets of the EIA procedure are to:

- Assess the environmental impacts of the project in question
- Ensure that consistent consideration of impacts is given in planning and decision-making
- Increase the information available to citizens and their opportunity to participate.

The EIA procedure is two-phased. In the first phase, a scoping document, called the EIA programme, is drawn up and submitted to the coordinating authority for notification. The EIA programme describes the strategy for the assessment of environmental impacts. In the second phase, the actual impact assessment is carried out and the results are compiled in an EIA report – this report. The EIA procedure concludes when the coordinating authority issues its statement on the assessment report at the latest .

### 4.2.2 Parties in the EIA procedure

The developer is the company Nord Stream AG. The company is described in Chapter 2. Rambøll Oil & Gas AS (Denmark), and Ramboll Finland Oy have been the consultant and EIA expert for Nord Stream AG. The Italian company SES (Saipem Energy Services, former Snamprogetti) has been responsible for the technical design of the pipeline system.

The project is located in the territories of three Finnish Regional Environment Centres: Southeast Finland, Uusimaa and Southwest Finland. The Finnish authorities have agreed that the Uusimaa Environment Centre will be the coordinating authority for the national EIA procedure. Other authorities, research institutions, municipalities and members of the general public have also been involved in the EIA process. Public participation is described in Chapter 4.2.5.

### 4.2.3 EIA procedure for the Nord Stream project

A Transboundary Project Information Document (PID) was prepared (see Chapter 4.1.) and submitted to the Finnish authorities in parallel with the national EIA programme. In a similar

way, the Espoo report /5/ has been developed at the same time with this Finnish national EIA report. The public consultation processes and issuing of statements for both the Espoo report and the national EIA are conducted in parallel and handled together.

In line with the first phase of the Finnish national EIA procedure, the Uusimaa Environment Centre, which acts as the national coordinating authority, announced the display of the EIA programme /18/ in November 2006 (see figure 4.2). During the public hearing (display of the EIA programme) the coordinating authority requested statements from different authorities. In addition, citizens and NGOs were invited to express their opinions on the assessment programme to the coordinating authority. Based on these opinions and statements, the coordinating authority issued its statement to the developer on 27 February 2007.

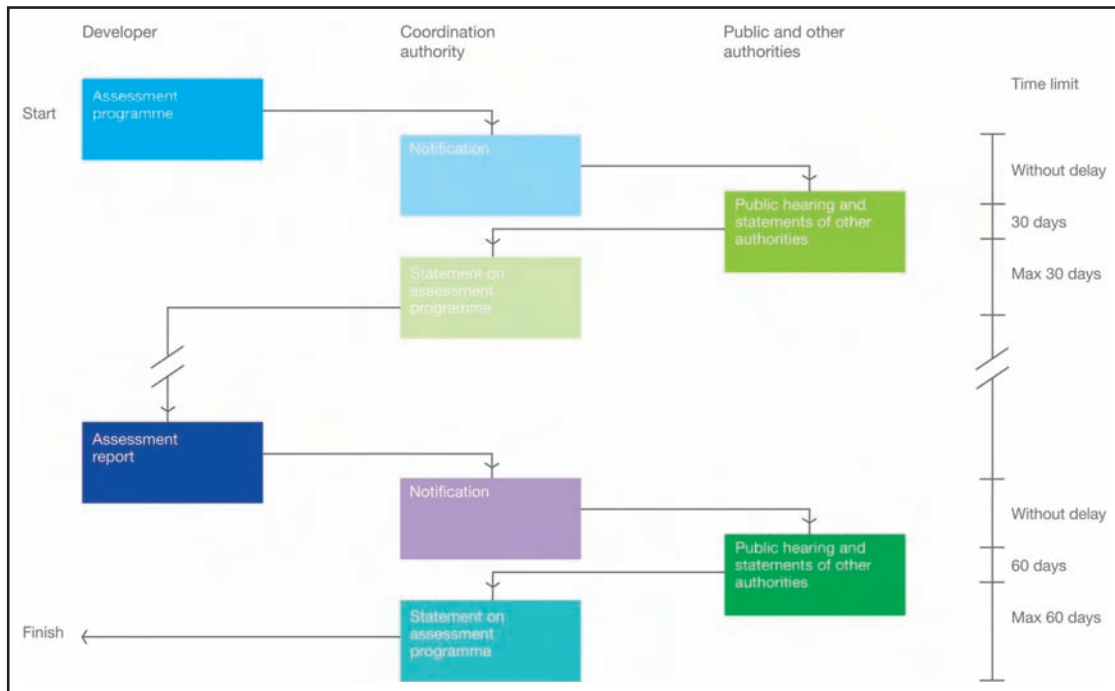
The second phase, the assessment phase, was carried out based on the coordinating authority's statement and the EIA programme. This national assessment report contains the results of the impact assessment. It includes descriptions of the main characteristics and technical solutions of the project, operations, environmental impacts of the studied alternatives, assessment methods, the basis of the assessment, a comparison of alternatives, the viability of the alternatives, a proposal for a monitoring programme and a summary of the assessment work. In addition, this assessment report describes the main uncertainties related to the assessment and measures to prevent and mitigate adverse environmental impacts. The national assessment is focused on the Finnish part of the project area, that is the Finnish EEZ. The Espoo report describes transboundary impacts from neighboring countries to Finland and vice versa as well as the zero-alternative (non-implementation of the whole project).

The Finnish authorities have been informed of the progress of the assessment throughout the EIA procedure.

After the developer has submitted the EIA report to the coordinating authority, the latter will in turn notify the assessment report in the same way as the assessment programme. Notification will be done and the assessment report will immediately be on display for about two months (maximum 60 days) during which Finnish authorities, citizens and other interest groups will have the opportunity to submit their opinions to the coordinating authority.

The coordinating authority will compile the statements and opinions. Based on these, the coordinating authority will issue its own statement within two months (maximum 60 days) of the end of display and public hearings. The environmental impact assessment procedure will conclude with the coordinating authority's statement at the latest on 3rd of July 2009. This assessment report and coordinating authority's forthcoming statement on it will be considered in permitting procedures.





**Figure 4.2.** EIA procedure in Finland.

#### 4.2.4 Coordinating authority's statement on the EIA programme

During the public hearing period of the national EIA programme, the assessment programme was available to the public in the coastal municipalities of the Gulf of Finland, in the municipalities in the southern parts of the Archipelago Sea and on the internet (<http://www.nord-stream.com/fin/>).

Comments concerning the national EIA programme were received from 19 authorities, including Åland Island. In addition, 16 municipalities, four regional councils, 12 non-governmental organisations and six private persons gave their opinion.

Authorities and research institutes:

- Employment and Economic Development Centre for Southwest Finland (Varsinais-Suomi)
- Employment and Economic Development Centre for Uusimaa
- Finnish Environment Institute (SYKE)
- Finnish Maritime Administration
- Finnish National Board of Antiquities
- Finnish Safety Technology Authority (TUKES)
- Geological Survey of Finland
- Institute of Marine Research
- Metsähallitus (Forest Authority)
- Ministry of Agriculture and Forestry
- Ministry of Environment
- Ministry of Foreign Affairs
- Ministry of Transport and Communications (arrived late)

- Ministry of Trade and Industry
- State Provincial Office of Southern Finland
- State Provincial Office of Western Finland
- Southeast Finland Regional Environment Centre (Kaakkois-Suomi)
- Southwest Finland Regional Environment Centre
- Åland Island
- Regional councils:
- Regional Council of East Uusimaa
- Regional Council of Kymenlaakso
- Regional Council of Southwest Finland
- Regional Council of Uusimaa

|                 |   |   |
|-----------------|---|---|
| Municipalities: | <ul style="list-style-type: none"> <li>• Halikko</li> <li>• Hamina</li> <li>• Hanko</li> <li>• Helsinki</li> <li>• Ingå</li> <li>• Kaarina</li> <li>• Kirkkonummi</li> <li>• Kotka</li> </ul> | <ul style="list-style-type: none"> <li>• Loviisa</li> <li>• Pargas</li> <li>• Pernå</li> <li>• Ruotsinpyhtää</li> <li>• Sipoo</li> <li>• Siuntio</li> <li>• Virolahti</li> <li>• Västanfjärd</li> </ul> |
|-----------------|---|---|

Non-governmental organisations:

- Coalition Clean Baltic
- Gulf of Finland Professional Fishing Association
- Finnish Archipelago Professional Fishing Association
- Finnish Association for Nature Conservation
- Finnish Professional Fishing Association
- Kotkan Luonto ry (Nature in Kotka Association)
- Kymenlaakso Regional Organisation of the Finnish Association for Nature Conservation
- ProKarelia
- Society for Nature Protection in Hanko
- Uusimaa Regional Organisation of the Finnish Association for Nature Conservation
- World Wildlife Fund (WWF) Finland
- WWF Baltic Program/Germany

All of the national statements concerning the national EIA programme were collected and handled by the coordinating authority. The coordinating authority, Uusimaa Environment Centre, issued its statement which included summaries of all the other statements, on 27 February 2007. The statement of the coordinating authority collected the most important and critical questions received from other parties during the consultation (see statement from Appendix VIII).

Most of the requests were met during the current environmental impact assessment and/or are addressed in this EIA. Table 4.2 summarises the coordinating authority's statement and the measures taken in response to that statement.

**Table 4.2.** Coordinating authority's main comments (statement on 27 February 2007) and measures taken.

| Topic                                       | Comment  | Relevant chapter in the EIA    | Reasoning  |
|---|--|--------------------------------|--|
| Impact assessment                           | The magnitude of the project should not mean that the environmental impacts are assessed less carefully than for smaller projects.   | Chapters 5 and 8               | Developer has made extensive and detailed surveys of the physical, chemical and biotic environments of the pipeline corridor. Anchor corridor survey is on-going.  |
| Project time-schedule                       | The schedule for the EIA is tight, and if necessary it should be revised to allow for any additional investigations.   | Chapter 4                      | Time-schedule has been extended  |
| Project description                         | The project is described clearly but in fairly general terms. The project should therefore be described with sufficient accuracy to allow detailed investigation and assessment of its impacts.  | Chapter 3                      | The project description has been updated based on the latest available technical information.  |
| Intervention Works                          | It does not appear from the assessment programme that the levelling of the seabed is to be carried out for both pipelines at once.   | Chapter 3                      | Description of the construction works have been improved   |
| Routing                                     | Various onshore routes investigated earlier were not been examined as alternatives, and no grounds were presented for eliminating alternative routes. A more detailed explanation for choosing the Baltic Sea alternative must be included in the EIA.   | Chapters 2 and 6               | Alternative routings and their history have been explained better.   |
| Routing                                     | The topography of the seabed in the Gulf of Finland is difficult with a view to construction in Finland's EEZ, as the sea bottom is uneven, and laying the pipeline would require levelling and filling. The sea bottom of the Gulf of Finland further south of the proposed pipeline route is more even and deeper.                                     | Chapter 6                      | Survey permit applications for a southern route were submitted in Finland and Estonia. Estonia rejected Nord Stream's application for a survey permit. A new southern route alternative in the Finnish EEZ (Alternative 2) was studied as part of the EIA. |
| Routing                                     | The routing of the pipeline has not been shown in such detail that the amount of work required on the sea bottom could be specified in detail  | Chapters 3, 6 and Atlas        | Routing is explained in more detail  |
| Seabed intervention works and sedimentation | Since neither the detailed routing, nor the topography of the seabed, its structure or sediment composition have been presented, it has not been possible to give a detailed plan for the required seabed excavation work with the required transport of removed materials and how they relate to the various sedimentation areas in the Gulf of Finland | Chapters 3, 5.3, 8.1 and Atlas | Seabed intervention works plan, seabed morphology, bathymetry and sedimentation areas have been presented  |

| Topic                                   | Comment  | Relevant chapter in the EIA                    | Reasoning  |
|---|--|--|--|
| On-shore facilities                     | The description states that the construction of the gas pipeline will require onshore maintenance or other auxiliary facilities. The locations of these facilities and the related operations have not yet been presented in the assessment programme, but they are to be presented in the assessment report   | Chapter 3.4                                    | On-shore support and logistics have been presented.  |
| 0-Alternative and on-shore alternatives | As a zero-alternative, the programme mentions the new Yamal–Europe pipeline, which is parallel to the route of the existing Belarus pipeline. Another zero-alternative mentioned is the Amber pipeline via Russia, Latvia, Lithuania and Poland. The various overland pipelines investigated earlier have not been examined as an alternative to the offshore Nord Stream gas pipeline project. The assessment programme does not give any grounds for eliminating the routes studied earlier. In the assessment report more detailed reasoning should be given for choosing the Baltic Sea alternative. | Chapters 2, 6 and the Nord Stream Espoo report | 0-alternative has been described and assessed. More extensive description of the alternative can be found in the Espoo report. |
| Routing                                 | <p>Because of the ecological vulnerability and heavy pollution load in the Baltic Sea, and particularly in the Gulf of Finland, it is important to find a routing and method of implementation that causes the least possible impact on the environment.</p> <p>The routing now proposed follows the outer limit of the Finnish EEZ very closely, and no environmental grounds have been given for this choice. The assessment should propose the best routing alternative, in terms of the environment, in the Gulf of Finland</p>  | Chapter 6                                      | Routings have been optimised and a more southern alternative has been included in the EIA.                                     |
| Research stations                       | On the pipeline route or in its vicinity, there are areas of long-term marine research monitoring, which are important for monitoring the state of the Baltic Sea. In further planning of the pipeline routing, the integrity of these areas should be taken into account  | Chapter 8.1 and Atlas                          | Potential impacts on long-term marine research monitoring sites in the vicinity of the pipeline have been assessed             |

| Topic                                   | Comment   | Relevant chapter in the EIA  | Reasoning  |
|---|---|------------------------------|--|
| Impact area                             | <p>The fine-grained material made up of sediments and substances released into the water may be carried further by currents than the assessment programme indicates.</p> <p>The scoping of the impact area towards Åland should also be examined during the assessment.</p>   | Chapter 7 and 8              | <p>Impact area has been identified in relations to each impact.</p> <p>A separate discussion has been had with Åland Island authorities, and their requests have been taken into account in the assessment.</p>                    |
| Sediment spreading model                | <p>A sufficiently accurate analysis should be made of the harmful substances and nutrients contained in the bottom sediment of the gas pipeline route.</p> <p>The assessment report should illustrate, for example, by simulation modelling, how the substances and nutrients stored in the sediments will be released and transferred, and how they will settle and bind to organisms during the construction phase</p>  | 8.1, Appendix IV, and Atlas. | Impact assessments of sediment, contaminant and nutrient dispersal have been done mainly based on results from mathematical modelling.   |
| Contaminated sediments and construction | Depending on the concentrations of harmful substances in bottom sediments, a plan should be made for handling them, with reference to the guide on dredging and dumping sediments published by the Ministry of the Environment on April 19, 2004. The guide is based on a recommendation and guidelines given under the Baltic Marine Environment Protection Convention (HELCOM) on the dumping of dredged material in the sea and the guidelines of the North-East Atlantic Convention (OSPAR) relating to dumping | Chapters 3 and 5             | There is no handling (dredging, digging, dumping etc) of large amounts of contaminated sediments. Only rock-placement will be used as an intervention work method. The guideline and recommendations have been taken into account. |
| Contaminated sediments and construction | In the project description, the draft timetable and the permit procedures required by the project, no allowance has been made for dealing with concentrations of harmful substances in the bottom sediment that could cause environmental pollution as referred to in environmental protection legislation  |                              | There is no handling (dredging, digging etc) of contaminated sediments. The guideline and recommendations have been taken into account.  |
| Munitions                               | Any remains of chemical weapons and munitions submerged in the construction area should be located, a description must be given of their handling and an assessment of the possible impacts   | Chapters 3, 5.6, 8 and Atlas | There are no chemical weapons in the Finnish EEZ. Conventional munitions have been identified and their status and impacts have been presented.  |

| Topic        | Comment   | Relevant chapter in the EIA | Reasoning  |
|--------------|---|-----------------------------|--|
| Ship traffic | The pipeline route is located near a busy fairway. Possible risks to maritime traffic from the construction work were also strongly emphasised in the feedback. The assessment report should also describe how the safety of maritime traffic is to be ensured during the construction period   | Chapters 5.6, 8.4 and 9     | There has been on-going discussion with maritime authorities, impacts and risks have been presented.   |
| Ship wrecks  | <p>On the chosen route there may be valuable shipwrecks which are considered desirable to preserve. On the other hand, there may be shipwrecks on the pipeline route that contain oil or other harmful substances.</p> <p>These must be investigated in the assessment and necessary measures must be taken to deal with them.</p>  | Chapters 5.6 and 8.4        | Wrecks have been identified and presented. There has been on-going discussion with Finnish National Board of Antiquities.  |
| Natura 2000  | The developer should investigate whether the scope of the project includes any reefs or underwater sandbanks as referred to in the list of habitats given in Annex I of the Habitats Directive, and any species referred to in Annex II, for example, the grey seal, the ringed seal and bird species native to the open sea. In addition, the impacts of the project on these habitats and species should be assessed.   | Chapters 5.5 and 8.3        | No habitats according to the Habitats directive have been identified during the EIA. However, if such values are to be determined by authorities after EIA, a separate study will be done          |
| Birds        | <p>The assessment should take into account the areas important for the different stages of the lifecycle of birds. For example, auks feed in the open sea tens of kilometres from their nesting grounds, so that distance from the pipeline, as proposed in the assessment programme, is not a sufficient criterion for assuming that the project will have no impacts on bird life.</p> <p>The criteria for the conservation status of the protected areas should be emphasised and the impacts on them assessed. The assessment should also investigate the timing of construction work in order to avoid interfering with important stages in the lifecycle of birds and other fauna</p> | Chapters 5.4 and 8.2        | Preliminary construction schedule is presented in the EIA report. Impact assessment has taken into account the possible impacts to biotic environment and presented mitigation measures if needed. |

| Topic                        | Comment   | Relevant chapter in the EIA       | Reasoning   |
|------------------------------|---|-----------------------------------|---|
| Fishery                      | Commercial fishermen have particularly expressed their concerns about the impacts of the project on bottom trawling. The assessment should look into the impacts of the project on fish and fishing and its significance for bottom trawling in the conditions of the Gulf of Finland.  | Chapters 3, 5.4, 5.6 and 8.2, 8.4 | Impacts on fish and fishery have been presented. Discussions are on-going with the professional fishermen.  |
| References and data material | <p>The Finnish Institute of Marine Research, the Geological Survey of Finland and the Finnish Environment Institute set up a group of experts, which has published a report "Implementation of the North European Gas Pipeline Project – Data Inventory and Further Need for Data for Environmental Impact Assessment" (Finnish Institute of Marine Research's MERI series, No. 58, 2006).</p> <p>The report offers good information on the basic data available in Finland and on the need for supplementary data, as well as a proposal for a project monitoring programme.</p> | Chapters 3, 5 and 15.             | The report has been used as a reference in the EIA-report. Source material to be used and proposal for assessment methods proposed in the report have been considered. Also the FIMR proposal for monitoring programme has been considered in the EIA report. |
| References and data material | <p>The impact assessment should be based on up-to-date information.</p> <p>The EIA programme contains partly out of date or incorrect data on shipping, seals, bird life and fish.</p>  | Chapter 5 and 8                   | The impact assessment has been carried out according to survey results from 2005–2008 and is based on the latest technical information and best available assessment methods.   |
| Transparency                 | <p>It is to be hoped that the material used and gathered in the course of the assessment will be made available as widely as possible to the public so as to ensure the transparency of the assessment procedure.</p> <p>The methods used, for example, in sampling and modelling, along with the assumptions involved, should be described in the assessment report</p>  |                                   | All survey data used in the EIA will be delivered to the national authorities upon request and relevant data will be put on public domain.  |

A white book on the statements received and the responses to these statements by Nord Stream AG (Stakeholder comments received during international consultation according to the Espoo Convention, Summaries and Responses) was delivered to Espoo parties and national authorities in May 2008 /31/. The document summarises all of the statements received during the Espoo procedure and national public consultations.

#### 4.2.5 Public participation

The Nord Stream AG has developed a strategy for engaging interested and affected parties, which will continue throughout the lifetime of the project. This is designed to provide opportunities for informing, consultation and participation including receiving feedback from stakeholders and providing responses to that feedback.

##### 4.2.5.1 Formal participation

The EIA has been carried out in an interactive manner. During the period of public display of the EIA programme, public meetings were held in December 2006 in Helsinki (11 December), Hanko (12 December), Turku (13 December) and Kotka (14 December). The meetings were chaired by Jorma Jantunen from Uusimaa Environment Centre. There were approximately 20-30 participants at each meeting, including members of the media. In addition, a separate meeting aimed at authorities was held in Helsinki on 11 December 2006.

Numerous meetings with governmental authorities have been organised in Finland, as in other Baltic countries, to discuss project status, technical information, assessment issues and other concerns. The authorities' participation in these discussions has taken place in the spirit of cooperation. The project was also presented at several seminars, workshops, etc.

The results of this EIA report will be presented to the general public at public meetings during the two month (maximum 60 days) display period starting from the 9th of March 2009. Public meetings will take place in March 2009 and will be held in five cities: Helsinki (week 11), Hanko (week 11), Kotka (week 12), Turku (week 11) and Mariehamn (week 12). The meetings will be organised by Nord Stream AG in cooperation with the coordinating authority. The public meetings will be chaired by the coordinating authority.

##### 4.2.5.2 Authority visits to survey vessels

In November 2007 and January 2008, Nord Stream AG organised authority visits to the survey vessels Triad, OMX Pollux and Franklin in Helsinki. Fifteen to twenty authorities participated at each visit, during which they had the opportunity to observe the survey equipment in action and to speak with the survey and vessel crew.

##### 4.2.5.3 Media events

A press meeting was organised in December 2006 in Helsinki to present the EIA programme. Approximately a year later (on 5th of December 2007) Nord Stream AG organised a press trip to the research vessels Franklin, OMX Pollux and Triad in Helsinki. Reporters and journalists from nine television stations and five major newspapers attended.

In 2007 and 2008 several small-scale press meetings have been organised to provide updates on the project status.



A press meeting will be organised to present the assessment results when the EIA report has been finalised and made available for public display.

#### 4.2.5.4 The pipeline information tour

In addition to the events above, Nord Stream AG established a 'Pipeline Information Tour Bus', a mobile exhibition specifically designed to inform the public about the Nord Stream project. The information bus has visited the following outdoor events in Finland in summer and autumn 2008:

- Maritime Festival in Åland on 18–19 July 2008
- Maritime Festival in Kotka on 25–26 July 2008
- Herring festivals in Turku on 23 – 26 October 2008



**Figure 4.3.** Nord Stream Pipeline information tour bus in Kotka Maritime Festival in July 2008.

#### 4.2.5.5 Nord Stream website

The project 'website', [www.nord-stream.com](http://www.nord-stream.com), has been online during the EIA procedure. Comprehensive general information on the project and on the national EIA procedure is available in Finnish and Swedish. The relevant website is continuously updated during the process.



The EEZ extends up to 200 nautical miles from the baseline (roughly, the coast) and comprises the subsoil, seabed and waters above it (UNCLOS Article 57). Due to proximity of shores, Finland's EEZ does not fully extend 200 nautical miles into the Baltic Sea. The borders of the EEZ in the Gulf of Finland have been agreed upon by Finland, Russia, Sweden and Estonia (see Atlas Map PR-1b-F for EEZ borders).

According to UNCLOS, each state also has rights in the continental shelf area. The continental shelf comprises the seabed and subsoil of the submarine areas that extend beyond the territorial sea throughout the natural prolongation of the land territory to the outer edge of the continental margin. In the Baltic Sea the continental shelf and the EEZ are almost identical.

According to UNCLOS, each coastal state is obliged to protect the marine environment in its territorial waters as well as in its EEZ. All states are entitled to lay (UNCLOS, Article 79) submarine cables and pipelines on the continental shelf. The delineation of the course for the cable or pipeline is subject to the consent of the coastal state, and the state may also set conditions for such cables and pipelines. For the laying of any submarine cable or pipeline, the state must take into account the existing cables and pipelines. In particular, the possibilities of repairing existing cables or pipelines shall not be prejudiced. Article 58 of UNCLOS stipulates that the same rights of a coastal state regarding the installation of pipelines and cables in the area above the continental shelf apply in the EEZ.

#### 4.3.2 International EIA and EU legislation

The Espoo Convention on Environmental Impact Assessment in a Transboundary Context (international consultation process) and the European Directive on Environmental Impact Assessment (2001/42/EC) are being followed. The environmental impact assessment procedures are explained in more detailed in Chapter 4.1 and 4.2.

#### 4.3.3 Legislation and permitting procedures

The establishment of the Finnish EEZ in 2006 extended the jurisdiction of Finland over its exclusive economic zone and its continental shelf under the Finnish Act on Exclusive Economic Zone (2004/1058). At the same time Finland amended the Act on Environmental Impact Assessment Procedure (468/1994) and the Water Act (264/1961). The EEZ Act contains references to these other acts, which shall also be applied to the Finnish EEZ.

Legislation pertaining to the Finnish EEZ and to the Nord Stream project is the Act on Environmental Impact Assessment Procedure and the Water Act, as well as all other provisions issued under these laws.

According to Finnish national authorities the Nord Stream project requires two different permit applications. These permits are:

- The Council of State consent according to the EEZ Act (1058/2004)
- A permit for construction according to the Water Act by the Western Finland Environmental Permit Authority

According to the authorities the consent of Council of State has to be issued before the permit according to the Water Act can be given.

#### **4.3.3.1 The Council of State consent according to the EEZ Act**

The Finnish Council of State may upon application grant approval according to the EEZ Act for:

- the exploitation of the seabed in the EEZ
- surveys related to exploitation
- other activities related to the commercial exploitation of the zone.

According to the EEZ Act, an approval may be granted either until further notice or for a fixed period. The content of the permit application is defined in §2 of the government decree on the Finnish Act on the Exclusive Economic Zone (1073/2004). The application shall be submitted to the Ministry of Employment and the Economy (formerly the Ministry of Trade and Industry) at least six months before the estimated time of starting the activity.

The EIA report and coordinating authority's statement on it will be taken into account for the final decision concerning the EEZ permit.

#### **4.3.3.2 Water permit according to the Water Act**

The laying, construction, use and maintenance of the Nord Stream pipelines are subject to a water permit according to the Water Act. The application must contain the plan of activity and clarification of impacts, as provided in more detail in the Water Decree.

A water permit will be based on a comparison of interests with the aim of reducing harmful impacts as much as possible. The EIA report and coordinating authority's statement on the report will be taken into account before the final decision on the permit concerning the Water Act is taken. The permit is to be granted by the Western Finland Environmental Permit Authority. This authority may stipulate permit regulations in order to minimise environmental effects of the proposed routing of the pipeline.

## 4.4 The project relation to plans and programmes for land-use, natural resources and environmental protection

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This chapter explains how the project is related to land-use plans and to plans and programmes for the use of natural resources and environmental protection.

### 4.4.1 Finland's national land use guidelines and regional land use plans

Finland has defined a set of long-term national land use guidelines for to meet major land use challenges related to the ongoing socio-economic changes /32/. The guidelines have also been designed to help Finland to fulfil international agreements and objectives, including UN climate agreements, the Convention on Biological Diversity, agreements related to the protection of cultural environments, and the goals of the European Spatial Development Perspective (ESDP). Finland's national land use guidelines aim to ensure that nationally significant goals and needs are duly accounted for in planning at regional and local authority level, and in the work of national government authorities.

The guidelines are mainly implemented through regional planning procedures, where national, local and regional objectives are harmonized during the drafting of regional land use plans. These regional plans also help to ensure that the national guidelines are duly considered in land use planning at the municipal level.

The guidelines indicate which issues should be taken into account all over the country in all land use and land use planning. Under the Land Use and Building Act, regional planning, planning at the local level, and the activities of government authorities should promote the implementation of these guidelines. The national land use guidelines have been grouped according to subject as follows: 1) a well-functioning regional structure, 2) a more coherent community structure and a quality of the living environment, 3) the cultural and natural heritage, recreation uses and natural resources, 4) well-functioning communication networks and energy supply, 5) special issues of the Helsinki region and 6) areal entities of outstanding interest as natural and cultural sites.

Council of State has on the 13th of November 2008 decided to revise the land use guidelines. The revision comes to force on the 1st of March 2009. The main goal with the revision has been to answer to the challenge related to climate change.

The regional land-use plans cover also the territorial waters of Finland. North of the project area there are four regional plans being under preparation by the Regional Councils of Finland. The regions from east to west are Kymenlaakso, Eastern Uusimaa, Uusimaa and Southwest Finland. The planned and existing activities in the Finnish EEZ and in territori-

al waters north of the pipeline section are described in Chapter 5.6.7 (Existing/planned infrastructure and utilization of natural resources).

The Nord Stream project is assessed not to be in conflict with issues mentioned in the national land use guidelines, land use plans nor the revision of the guidelines. The assessment is based on the fact that the Nord Stream pipelines are entirely located in the Finnish EEZ, which is considered as international waters. Therefore the Nord Stream project area is not covered by national land-use plans.

#### 4.4.2 Nature conservation programmes

About 9% of the total area of Finland is protected under the Nature Conservation Act or the Act on the Protection of Wilderness Reserves. The aim when designating nature reserves is to ensure that representative examples of all natural habitat types found in Finland are preserved. This also helps to maintain the populations of their characteristic animals and plants, and to safeguard threatened species.

Seven nature conservation programmes have been approved by the Finnish Government and cover national parks and strict nature reserves, mires, bird wetlands, eskers, herb-rich woodland, shores and old-growth forests. Each program has its own specific aims, which are used as criteria for the selection of protected areas. Most of Finland's protected areas also belong to the EU's Natura 2000 network of protected areas <sup>/33/</sup>.

The main protected areas in the Gulf of Finland in the proximity of the Nord Stream project are described in Chapter 5.5 (Protected areas). These are Natura 2000–areas, national parks and other protected areas as Baltic Sea protected areas (BSPA), Unesco sites, RAMSAR sites and seal sanctuaries. The project's impacts on these conservation areas are assessed in Chapter 8.3.

#### 4.4.3 Water protection

According to the Ministry of Environment <sup>/34/</sup> Finland's water protection policy aims at improving and protecting water quality in the Baltic Sea. The objective is that the state of the Baltic Sea and inland waters is not degraded any further by human activities. Water policies have been based on long-term-strategies. The Government adopted the November 2006 a new set of national Water Protection Policy Outlines to 2015.

In 2002, the Government adopted Finland's Program for the Protection of the Baltic Sea. Under the program, steps will be taken to combat eutrophication, decrease the risks caused by hazardous substances, reduce the risks of maritime traffic, protect biodiversity, and increase environmental awareness and research. In June 2005 the Ministry of the Environment approved an action plan. For more information see <sup>/34/</sup>.

The Water Framework Directive (200/60/EC) gives guidelines for water management policy. The Act on Water Resources Management (1299/2004) organizes river basin management planning, together with the Government Decree on Water Resources Management Regions (1303/2004), the Government Decree on Dangerous and Harmful Substances on the Water Environment (1022/2006) and the Government Decree on the Water Resources Management (1040/2006). Emission prohibition and values as well as environmental quality standards (EQS) of the Act 1022/2006 concern also the Finnish Exclusive Economic Zone, but this decree does not enact about programs or plans. According to the Decree on Water Resources Management the project area is next to the water resources management region of Kymijoki—Suomenlahti and near the water resources management region of Kokemäenjoki—Saaristomeri—Selkämeri.

It is a duty of regional environmental centers together with fisheries units of the Employment and Economic Development Centers to prepare water resources management plans and programs of measures for above mentioned water resources management regions. The objective of the river basin management plans is to achieve a good state of surface waters by the end of 2015. Management plan proposals have now been approved by the Ministry of Environment. The first water resources management plans are due to be completed by 2009 and they will be approved by the Government. Those plans will be delivered as reports to the Commission.

Referring to the management plan of Kymijoki—Suomenlahti there are no new projects on the horizon which could affect attaining water quality objectives. The risk of accidents because of the graduated vessel traffic and pollution from ships are of main concern within the Gulf of Finland. Nord Stream is not listed as a project of concern either in the management plan of Kokemäenjoki—Saaristomeri—Selkämeri region /35/.

Finland has signed several international conventions related to the protection of the marine environment and watercourses. The protection of the Baltic Sea is one of the priorities of Finnish environmental cooperation. Finland also has good experiences and results from long-term cooperation on protecting transboundary waters. This work started with an agreement with the Soviet Union in 1964 (subsequently continued with the Russian Federation since 1992), followed by agreements with Sweden in 1971 and Norway in 1980.

#### 4.4.4 Noise level guidelines

The Council of State Decision (993/1992) provides noise level guidelines. The noise level guidelines are presented in Chapter 8.1.4. There are no noise level guidelines for offshore or underwater activities.

#### 4.4.5 The Helsinki Convention / HELCOM Recommendations

All Baltic coastal states, including Finland, have signed the Convention on the Protection of the Marine Environment of the Baltic Sea Area (Helsinki Convention, signed in 1992). This

does not contain any direct and materially relevant requirements for the installation of off-shore marine pipelines. However, Article 7 of the Helsinki Convention does stipulate an obligation for consultation concerning projects in territorial waters that may have transboundary impact and for which an EIA under international law or supranational legislation is required. The Helsinki Convention does not specify any further details concerning the EIA or inter-state coordination.

There is a total of 116 valid HELCOM recommendations issued by Helsinki Commission pursuant to Helsinki Convention. Recommendations are guidelines for all parties in the Helsinki Convention, but are taken into account also by Nord Stream, if relating to the pipelay and pipelines. Such recommendations taken into account are e.g. Baltic Sea Protected Areas (BSPA). There are total of six BSPAs within the Gulf of Finland: Ingermanlandskiy, Eastern Gulf of Finland Archipelago and waters, Kurgalskiy Peninsula, Lahemaa National Park, Pernajabay and Pernaja Archipelago marine protection areas and Tammissaari and Hanko Archipelago-and Pojo Bay marine protection area.

The following BSPAs are situated in the Finnish part of the Gulf of Finland:

- Southern Archipelago Sea (BSPA 143)
- Tammissaari Archipelago-Hankoniemi – Bothnian Sea Bottniska Viken (BSPA 24)
- The Eastern Gulf of Finland National Park (BSPA 25)

More information on the BSPA areas is available from the Baltic Sea Protected Areas Database /36/. Also all Ramsar sites and their particular conservation values have been taken into account.

Another example of a recommendation Nord Stream has taken into account is the HELCOM recommendation no. 27-28/2 (8 July 2006), which deals with the conservation of seals in the Baltic Sea area. Although seals are not priority species and strict protection for the animal species listed in Annex IV (a) and 49 § of the Finnish Nature Conservation Act is not needed, Nord Stream aims to construct the pipelines without disturbing the ice-covered breeding or resting grounds of seals. Impact assessment concerning seals is presented in Chapter 8.2.

All pipelay and other construction and survey vessels will take HELCOM recommendations into account e.g. by avoiding all kinds of pollution, dumping or littering from ships (e.g. 19/9, 22/1, 23/1 etc.). There are also ongoing projects, such as a project (2008–2012) for elaboration of HELCOM Red List of Species and Habitats/Biotopes according to the IUCN criteria for the next groups: macrophytes, benthic invertebrates, water birds, fish (including migratory) and lamprey species (updating the existing HELCOM Red list of fish and lamprey species (BSEP No. 109), and marine mammals. The project will also update the underwater part of the HELCOM Red list of Baltic Sea biotopes and biotope complexes (BSEP 75).