Greenpeace has reviewed the materials submitted for the International consultations on the basis of the Espoo report (https://www.nord-stream2.com/en/pdf/document/51/) (hereinafter - the Espoo Materials) and provides the following comments (attached).

As follows from the materials (paragraph 0.4.1), environmental, social and technical constraints, notably the requirement to adhere to a minimum safety distance from settlements, means it is not possible to follow the original Nord Stream route in Russia. Narva Bay and Cape Kolganpya were therefore identified as alternatives.

Following environmental surveys and the assessment of the two routes, the Narva Bay option is preferred, due to: shorter onshore and offshore routing, leading to lower impacts and shorter construction timeframes; more favourable seabed conditions, meaning less dredging is required; and lower risks of accidents.

Greenpeace Russia believes that this choice is contrary to the current Russian legislation as well as international obligations of the Russian Federation for the reasons indicated in the remarks.

In accordance with the Convention on Environmental Impact Assessment in a Transboundary Context (Article 4, paragraph 1), the documentation on environmental impact assessment that is to be submitted to the competent authority of the Party of origin contains, at the bare minimum, the information described in Appendix II.

According to Appendix II, the information to be included in the documentation on environmental impact assessment in accordance with Article 4, as a minimum, must contain:

b) A description, if necessary, of reasonable alternatives (for example, of geographical or technological nature) to the proposed activity, including the option to refuse proceeding with this activity;

c) A description of those elements of the environment that are likely to be significantly affected by the proposed activity or its alternatives;

d) A description of the possible types of environmental impact of the proposed activity and its alternatives and an assessment of their extent;

e) A description of precautionary measures aimed at minimizing the harmful impact on the environment;

As indicated in the comments, Nord Stream 2 AG presented an incomplete and unreliable description of those elements of the environment that are likely to be significantly affected by the
proposed activity or its alternatives, as well as the description of the possible types of environmental impacts of the proposed activity and its alternatives and an estimation of their extent.

Thus, the Ministry of Natural Resources of the Russian Federation has sent to the contact persons of the Espoo Convention in Denmark, Germany, Latvia, Lithuania, Poland, Estonia, Sweden and Finland the documentation on environmental impact assessment for the construction of the offshore gas pipeline Nord Stream 2 developed by Nord Stream 2 AG in violation of Article 4 of the Convention on Environmental Impact Assessment in a Transboundary Context (the Espoo Convention).

In regards with the above, we believe that the Espoo Materials must be finalized in accordance with the remarks above and only after that to be submitted for the international consultations. We propose the Ministry of Natural Resources of Russia to withdraw the documentation on environmental impact assessment for the construction of the offshore gas pipeline Nord Stream 2, developed by Nord Stream 2 AG and sent to the contacts of the Espoo Convention in Denmark, Germany, Latvia, Lithuania, Poland, Estonia, Sweden and Finland until the above violations are addressed.

Greenpeace and other NGOs will ensure that our position on this issue is directed to these contact persons with a request to take it into account while deciding whether to issue a permit for the construction of the Nord Stream 2 gas pipeline.

Please inform Greenpeace about your decision.
The attachment is on 14 p.
1. The route of the pipeline was determined before conducting publicly announced marine surveys.

In December 2016 Nord Stream 2 AG submitted the materials of the comprehensive marine survey program for the Nord Stream-2 project posted on the website of FRECOM LLC (http://frecom.ru/announcements/content6/) for public discussion.

On January 31, 2017 in the city of Kingisepp public hearings on the materials of environmental impact assessment of the program were held (the protocol of public hearings was approved by the resolution of the administration of the Ministry of Defense of Kingisepp municipal district as of 09.02.2017 No. 316.)

As follows from this protocol, the purpose of comprehensive marine surveys is to obtain the necessary and sufficient data on the natural and man-made conditions of the reviewed options for placing the proposed pipeline in order to justify route selection and develop design solutions for the selected route.

G. E. Wilczek, the Head of the permit department of Nord Stream 2 AG, spoke at the hearings and in particular: "talked about 2 current routes of the pipeline (through the cape of Kolgangpy or Narva Bay) and reported that for the final determination of route it is necessary to carry out detailed surveys, including the marine ones, the program of which is the subject of today's hearings”.

Thus, according to the publicly distributed information submitted to the public hearings of the Nord Stream 2 AG company, in order to determine the route of the pipeline, it is necessary to conduct detailed surveys, the program of which is a subjected to the state environmental expertise at the federal level.

The expert commission of the state ecological assessment of the above program was established on March 27, 2017 (order of Rosprirodnadzor No. 161). According to the order, the term of the assessment is 3 months.

Thus, the surveys can only begin in July 2017.

However, as it was mentioned above, the route of the pipeline has already been determined in the Espoo materials to go through the Narva Gulf.

Thus, the Espoo materials have been developed based on insufficient data.

2. Withholding the important information on the value of the southern part of the Kurgalsky reserve.
In our opinion, some facts on the value of the southern part of the Kurgalsky reserve, through which the gas pipeline is planned to go, are deliberately withheld for the consultations under the Espoo Convention.

1) Clause 0.8.2.2 of the "North Stream-2 ESPOO REPORT" as of April 2017 (hereinafter referred to as the Espoo report (https://www.nord-stream2.com/en/pdf/document/51/) indicates:

The Narva Bay landfall is within an area that exhibits a high species diversity of flora and fauna. Vegetation clearance, soil removal and earthworks required while constructing the pipelines will affect a spectrum of habitat types resulting in impacts rankings ranging from negligible to moderate on flora and habitats. The moderate impacts are associated with loss and fragmentation of old growth forest, with complex moss flora, and relict dune. For old growth forest some loss will be permanent with reestablishment in other areas occurring over a long time. The forest areas and coastal and relict dunes also provide secure habitats for fauna. The loss of the supporting habitat combined with the loss of connectivity for some species beyond the area impacted result in a moderate impact ranking for fauna. Effects, associated with habitat fragmentation and loss of connectivity, will diminish as trees establish and canopy cover increase.

According to this report, a part of the allocated strip will be covered by forest

However, according to SN 452-73 “Standards of land use for pipelines” (Approved by the State Committee of the Council of Ministers of the USSR for Construction Affairs on March 30, 1973), the right-of-way for the main pipelines of this diameter is set to be 32 meters. In addition, 15 meters is the minimal distance between pipeline axis. The total area, considering a 6 meter area allocated for the technological road, comes up to 85 meters. Thus, the entire strip allocated for the gas pipeline will be cleared out and maintained in a treeless state.

2) Other impacts relate to soil compaction, alteration to hydrological regime, emission to air, operational noise and light generation but due to their short term and reversible nature and limited spatial extent will have negligible to minor rankings. For species particularly sensitive to noise, impacts may reach moderate ranking during construction activities.

The project will require temporary construction activities within the Kurgalsky Nature Reserve and result in some long term changes to habitats. However, due to the small areas affected and the fact that the most valuable habitats will not be impacted and the overall integrity and functioning of the reserve will not be affected, the impact ranking on the protected area is evaluated as minor.

These arguments do not correspond to the reality.

According to the materials of the integrated environmental survey of the territories, justify giving these territories the legal status of the protected area of regional importance "Kurgalsky", submitted for public hearings on March 24, 2017, (volume 1, par.5.2) https://photos.google.com/share/AF1QipPlp-0uCew2_6WfG_kTvUG8hBB_bUG5-RH5_LGtvULKu9U5anufF5_ddJ61T1T5wYw/photo/AF1QipOd6WEnnF5wYrfVjv1AM1GJ8nI1BHCtmcgyJko?key=dHMBmVdnaGx0S0I2c13TV9iZmtSTmMzdHA5ZXV3 (hereinafter - MIES) “A list of natural complexes and objects proposed for special protection…”

The most valuable natural complexes are:

The habitats of rare bird species …, including:

The coastal strip of forests in the southern part of the reserve between the shores of the Narva Gulf and the eastern slope of the ancient coastal ramparts from the southern border of the reserve along the Rosson River to the intersection with the ring road at the Kirjamo -
MIES were accepted by the Directorate of Specially Protected Natural Territories (SPNT) of the Leningrad Region - a branch of the Lenobles Committee for Natural Resources (LOGKU) (the title page is sealed). LOGKU Lenobles is a subordinate institution of the Committee for Natural Resources in the Leningrad Region (CNR for LR), which is an authorized state agency for the management of the SPNT in the Leningrad Region. At public hearings, the representative of the authorized body - the head of the department of the SPNT CNR for LR F.N. Stulov supported these materials, which is reflected in the hearings protocol. 

Thus, an authorized body has recognized these areas as especially valuable natural complexes.

The route of the gas pipeline passes through districts 219-223,226-228,233 of the Ust-Luga district forestry:
Thus, the pipeline route along its entire length passes through the especially valuable natural complex of the Kurgalsky reserve, recognized by the authorized state body.

Nord Stream 2 AG provided the data on the value of the southern part of the Kurgalsky Wildlife Refuge, but the company did not fully reflect the data in the materials.

At the same time, according on the results of the research conducted in September 2016, the data from the Kurgalsky SPNT, data from the database on the Red Data Book of BIN (which was transferred to the Committee for Natural Resources), 7 species of vascular plants (1 species in the Red Data Book of the Russian Federation), 1 species of lichens and 1 species of mosses (Aulacomnium androginum, in the Red Data Book of the Russian Federation) were found directly on the route of the planned gas pipeline.

Thus, 7 species of vascular plants, 1 species of lichen and 1 species of mosses were found directly in on the pipeline route. That is 9 species which are listed in the Red Books of various levels.

Also, a nest of the White-tailed eagle is located directly on the proposed route.

3) Clause 5.4.2:
Phase 3. Comparative analysis of the options Narva Bay and Cape Kolganpya
In 2015, Nord Stream 2 AG conducted reconnaissance environmental surveys for both route options shown in Figure 5-2 and developed high level design concepts in order to make an informed comparison of the two options, see also Atlas Maps AL-01-Espoo and AL-02-Espoo. Based on the outcome of this evaluation, the Narva Bay route option was found to be the preferred option. The main reasons are:
The route is shorter for both onshore and offshore segments, thus resulting in a smaller impact area and a shorter construction time frame;

- Seabed conditions are more favourable; therefore the total volume of required pre-lay trenching and seabed intervention works is significantly less.

- The total volume, and therefore duration, of required pre-lay trenching and seabed intervention works for the Narva Bay option is significantly less than for the Cape Kolganpya option.

- The impact on the marine environment for the Narva Bay option would be significantly less than for the Cape Kolganpya option. The extent and duration of sediment dispersion for the Narva Bay option is much lower than for the Cape Kolganpya option, and known contamination levels of the seabed sediments are lower.

- The vulnerability of ecosystems as well as individual components of biodiversity and aquatic biological resources in the area of the Narva Bay route is lower than for the Cape Kolganpya option. However, for the onshore section of the Narva Bay route, mitigation is required to manage impacts on sensitive forest habitat. The Narva Bay route, therefore, would affect fewer valuable ecosystems and communities, including:

- Important bird areas and ringed seal haul-outs, where the average distance from the Narva Bay route is significantly greater than for the Kolganpya alternative and underwater noise impacts on marine mammals are lower.

This argument does not correspond with the previous paragraph, since it is not clear how exactly the conclusion that "the Narva Bay route will affect a smaller number of important ecosystems and communities" is drawn from the statement "however, the coastal section of the route according to the Narvsky Bay option requires reducing the impact on the sensitive forest habitat".

In addition, this argument is also not true to the facts.

According to Table 9-22, the gas pipeline route runs 3 km away from Maly Tyuters Island. According to the report by FRECOM LLC "Evaluation of alternatives for the Russian part of W-PE-MSC-LFR-REP-837-ALTREPRU-01" (https://www.nord-stream2.com/ru/protsedura-otsenki-vozdeistviia-na-okruzhaushchuui-sredu-v-rossii/protsedura-otsenki-vozdeistviia-na-okruzhaushchuui-sredu-v-rossii/ , hereinafter - the Comparison), tab. 4-5, there are colonies of ringed seals on the island of Maly Tyuters, spotted there in November 2015. The indicated scheme does not show the migration routes of the seals towards the island, which will inevitably cross the gas pipeline route through the Narva Gulf (which also indicates the unreliability of the data presented in the Nord Stream 2 AG reports).

In addition, the article “THE DISCOVERY OF THE BALTIIC RINGED SEAL (PUSA HISPIDA BOTNICA) BREEDING LAIR IN KURGALSKY RESERVE” was published in 2014 (http://cyberleninka.ru/article/n/obnaruzhenie-schennoy-nory-baltiyskoy-kolchatoy-nerpy-pusa-hispida-botnica-v-kurgalskom-zakaznike). The article describes the discovery of ring seal breeding lair near the village of Tiskolovo in the territory of the Kurgalsky reserve. This data is also not included in the company's materials, although Nordstream AG financially supported these studies, therefore, they are at its disposal.

The paper "New data on the distribution of spring-autumn lairs of the Baltic Ringed seal (Pusa hispida botnica) in the Gulf of Finland” published on the same resource, also indicates the presence of ringed seals near the tract Kirjamo in the summer months (http://cyberleninka.ru/article/n/novye-dannye-o-raspredelenii-vesenne-osennih-zalezhek-baltiyskoy-kolchatoy-nerpy-pusa-hispida-botnica-v-finskom-zalive); whilst “Aerial survey of Baltic ringed seals (Pusa hispida botnica) in the Russian part of the Gulf of Finland” directly states that “Based on the study, it should be concluded that the number of Baltic ringed seals in the Gulf of Finland continues to decline: in the last ten years the population has decreased almost threefold and has approached a critically low level. Due to the fact that the bay is a habitat of an isolated population of seals, a real threat of extinction of the Baltic subspecies from the native fauna has
arisen. In this regard, we consider it necessary to change the rarity category of the Baltic Ringed seal in the Red Data Book of the Russian Federation to “1 - endangered”. It is absolutely crucial to urgently enhance conservation measures, primarily in the water areas and islands of the regional reserves of the Kurgalsky and Berezovye Islands, as well as to create as soon as possible the Ingermanlandsky reserve on the islands of the Gulf of Finland.” (http://cyberleninka.ru/article/n/aviauchet-baltiyskov-kolchatoy-nerpy-pusa-hispida-botnica-v-rossiysko-akovatorii-finskogo-zalivaixzz4eQXHGd). One of the authors of the article, Mikhail Vladimirovich Veryavkin, also prepared the materials for Nordstream 2 AG.

The partial destruction of the reserve as a result of the gas pipeline construction definitely cannot be considered an enhancement of the conservation measures of the Kurgalsky reserve (it contradicts the scientific recommendations for strengthening the protection measures for certain species).

Thus, unreliable data regarding the choice of the route in consideration with conservation of marine mammals, is presented in Espoo materials.

4) Table 9-23. Incomplete data is also submitted.

Part of notified interest of the Kurgalsky Reserve. Supports, among others, three plant species in the Red Book of the Leningrad region and the Red Book of Eastern Fennoscandia, including dark-red helleborine (Epipactis atrorubens), which is listed as endangered in the Red Book of Eastern Fennoscandia. Provides habitat for nesting ringed plover (Charadrius hiaticula), which is endangered in the Baltic Region Red Data Book; common redshank (Tringa totanus), which listed as near threatened in the HELCOM Red List and rare in the Red Book of the Baltic region; and slow worm (Anguis fragilis), which is recorded as rare in the Red Data Book of Eastern Fennoscandinavia.

Only 1 species of plants from the 3 listed in the Red Book is indicated.

"As shown on Figure 9-19, the area supports great number of flora species in the Red Book of the Russian Federation, including Lobaria pulmonaria (category 2 ‘declining’); 11 species of fungi, one of which, Tyromyces fissilis, is listed in the Red Book of the Leningrad region as rare. Provides habitat for bear, wolf, fox, various amphibians, European roe deer (Capreolus capreolus) and Russian flying squirrel (Pteromys volans); the latter two are listed as vulnerable in the Red Book of the Leningrad region.

No mention of Aulacomnium androgynum, which is included both in the Red Data Book of the Russian Federation and in the Red Book of the Leningrad Region and was spotted at thirty (!!!) points along the route of the pipeline.

Well established and in good ecological condition, but it has a reduced understory and stands of trees of a similar age, which is thought to be due to historic felling. It has a lower probability of supporting the density and diversity of species present in three forest habitats. The small pasque flower (Pulsatilla pratensis) is identified as vulnerable in the Red Book of the Leningrad region.

Not indicated that the small masque flower (Pulsatilla pratensis) is also listed in the Red Book of the Russian Federation.

Scarce habitat in the Leningrad region that supports diverse habitats, including Leningrad Red Data Book species. Likely to support Red List species of reptiles and invertebrates. Supports grass snake, which is listed as near threatened in the Red Data Book of Leningrad. European pine vole (Microtus subterraneus), which is registered as vulnerable in the Red Book of the Leningrad region, was observed in the area of pine forest recovering from the fire.

No species of plants included in the Red Books are listed.
Kader swamp supports a diverse range of plants, including many plants listed on national or regional Red Lists. Of these, the oblong-leaved sundew (Drosera intermedia) is listed as vulnerable in the Red Book of the Leningrad region. Supports breeding bird species including willow grouse (Lagopus lagopus), which is listed by IUCN as vulnerable and by the Red Book of the Leningrad region as endangered, and horned grebe (Podiceps auritus), which is listed by HELCOM as vulnerable.

No mention of Rhynchospora fusca, which is listed both in the Red Book of the Russian Federation and the Red Book of the Leningrad Region and is encountered in exactly same habitats as the oblong-leaved sundew (Drosera intermedia), mentioned above.

5) Figure 9-36 Location of species of flora (left) and mosses (right) of conservation importance.

Rare lichens and mushrooms are not indicated. No designation of 30 points of bryophyte Aulacomnium androgynum

6) Clause 10.3.1.1. "The conventional open-cut constructed pipeline section within the Kurgalsky Nature Reserve will temporarily occupy an area of approximately 31 ha (3.7 km long and 85 m wide), which represents <0.05% of the overall designated Kurgalsky reserve, and 0.14% of its terrestrial component.

As indicated above, the occupation will not be temporary, but permanent.

7) Clause 10.10.1.1: "Upon completion of construction, much of the area within the 85 m RoW will be reinstated. Within the forest area, trees will be re-planted; the exceptions to this being a 7.5 m area over each pipeline and a 6 m wide access road where deep-rooted vegetation will be prevented."

See previous point.

8) Clause 9.7.2.2: "The habitats with the highest bird species diversity are associated with the seaward edge of the old growth forest and the complex habitat mosaic between the relict dune crest and the Kader swamp. The nest of a white-tailed eagle (Haliaeetus albicilla) (listed as vulnerable in the Red Data Book of Leningrad region and as of least concern in the IUCN Red List) containing one nestling was recorded within the NSP2 footprint. As described above, the most valuable bird habitats are located either within the forest and relic dune system or within the wetland at the central part of the Kader swamp."

At the same time, the impact on the white-tailed eagle is estimated only in clause 10.7.23:

"During baseline surveys, a white-tailed eagle’s nest with one nestling (listed as Vulnerable in the Red Data Book of the Leningrad region, and as of Least Concern on the IUCN Red list) was recorded within the primary natural forest. For species such as birds of prey and grouse, construction noise may cause disturbance at up to 1 km from the noise source [317]. Noise modelling has identified that the noise levels during the construction period in the forest area will reach the guideline value of 65 dBA (German guidelines for bird protection area during daytime) up to 300 m from the noise source. The maximum modelled noise value is 75 dBA at the source. The modelling was presented for the worst case scenario, with all construction activities taking place simultaneously. The impact will be temporary (approximately 2 years), localised (up to 300 m from construction corridor) and of medium intensity (the work will be spread out within the linear part and some detectable changes to the receptor will not affect its basic function)."

In clause 10.7.2.1 "Physical changes in the landscape or soil cover," the impact on the breeding of the white-tailed eagle is not assessed at all, which suggests that nesting will not be affected by construction.

However, this is not true to the facts.

Unfortunately, the responsible employees of the Company that declares its openness and publicity, use inaccurate data in the interview misleading the readers, deliberately or not.

The agency quotes G.Vilchek: "As for the white-tailed eagle, the first scientific publication on the discovery of its nest was made by the researchers who studied the flora and fauna of the reserve for our project. This new scientific information will be used to update the Red Books." A pair of white-tailed eagles has been nesting in this region for a number of years, apparently they do not leave the reserve even in winter. The nest is located about 70 meters away from the proposed route, meaning that the nest will not be affected by clear cutting”.

First, according to Greenpeace Russia, the nest is located not 70 but 50 m way from the marked gas pipeline route.

But even if the nest is 70 m away, it still falls into the 85 m right-of-way strip.

According to clause 6.7.1 of Espoo materials, typical construction works on the onshore pipeline section include the following:

• A transfer of species of plants and animals listed in the Red Book before the removal of the vegetative layer
• Removal of the vegetative layer and tree roots.
• Topsoil removal and storage

That is, the entire 85-meter strip will be cleared out during the construction period.

Thus, in any case, the nest of the white-tailed eagle will be destroyed.

In accordance with the Federal Law "On Wildlife" (Article 24), actions that can lead to the death, reduction in numbers or disturbance of the habitat of wildlife objects listed in the Red Books are not allowed. Legal entities and citizens carrying out economic activities in the territories and water areas inhabited by animals listed in the Red Books are responsible for conservation and reproduction of these objects of the animal kingdom in accordance with the legislation of the Russian Federation and the legislation of the subjects of the Russian Federation.

Thus, the construction of a gas pipeline in the habitats of the white-tailed eagle in the immediate vicinity of the nest is a violation of the Federal Law "On Wildlife".

This data is absent from Espoo materials.

Thus, the materials contain unreliable data on the potential impact of the gas pipeline on rare species of animals and plants, and that the construction of the pipeline is a violation of the current legislation.

3. Unreliable data on the comparative value and special protection regimes of the Kurgalsky and Kotelsky reserves.
According to the clause 5.4.2 The environmental and social impacts associated with the upstream gas pipeline that is required to supply the compressor station would also be greater along the Cape Kolganpya option because of its encroachment of the Kotelsky state complex nature reserve.

This argument also seems unreliable.

According to clause 4.4.3 Assessment of Alternatives for the Russian section https://www.nord-stream2.com/permitting-russia/environmental-impact-assessment-procedure-in-russia/: The coastal section of the route of the supply system along the route across the cape of Kolganpya crosses the state natural complex reserve of regional significance "Kotelsky" (described in Section 3.2.3.). Zoning within the boundaries of the reserve has been carried out with the allocation of land plots where economic activities are allowed.

The projected pipeline route runs in the area of intensive nature use with minimal restrictions on economic activity. Regardless of the administrative status of the reserve, pipeline construction will lead to the loss of habitats and increase the existing defragmentation of lands (Figure 4-8).

According to the regulations on the Kotelsky Reserve, approved by the Resolution of the Government of the Leningrad Region No. 134 of May 13, 2011:

11. Zoning has been carried out within the boundaries of the reserve with the allocation of land plots with a special legal regime, including:

2) Land areas of intensive nature use with a total area of 1265.5 hectares:
   a) Land plots of settlements with a total area of 33.5 hectares, including:
      The land plot occupied by the village of Babino - 24.5 hectares;
      The land plot occupied by the village of Poluchye - 9.0 hectares;

   b) Land plots of economic entities with a total area of 27.8 hectares, including:

      The land plot of the Research Institute of the Russian Institute of Radio Navigation and Time and the industrial site of the “Baltika” fishing collective farm - 14.3 hectares;
      The land plot of the industrial site of JSC "Arpit" - 7.8 hectares;
      The land plot of the base of CJSC "Rybkolhoz" Progress " - 5.7 hectares;

   c) Land plots of linear structures and land plots provided in accordance with the established procedure for the construction, reconstruction, repair and operation of the Luzhskaya-Sortirovochnaya railway station, the Baltic Pipeline System (BPS-2), other systems of linear structures with a total area of 1204.2 hectares, including:

      In other words, the railway, the BPS-2 oil pipeline and the power lines to Ust-Luga pass are located in this exact area. Further fragmentation will not significantly increase the impact.

This argument is supported by the scheme available in the materials:
Within the areas of intensive nature use the following protection regime is established:

2) the following activities are allowed:
Construction, maintenance, repair and reconstruction of the infrastructure of the reserve, facilities on the territory of settlements and land plots of economic entities, roads, other systems of linear structures, the railway station Luzhskaya-Sortirovochnaya, the Baltic Pipeline System (BPS-2), as well as search, exploration and production of groundwater for domestic and drinking water supply of economic entities in agreement with the authorized body and on the basis of a project that received a positive opinion of the state environmental expert review in accordance with the current legislation, as well as works to implement fire safety measures, reforestation in alignment with the authorized body;

c) The formation and provision of land for the construction, reconstruction, repair and operation of the railway station Luzhskaya-Sortirovochnaya, the Baltic Pipeline System (BPS-2), the infrastructure of the reserve, roads, **other systems of linear structures with the possibility of transferring land plots and other categories of land in agreement with the authorized body**;

Thus, construction of line facilities (including pipelines) in the areas of intensive nature use of Kotelsky reserve is permitted by the regime.

The construction will not cause any fundamentally new damage in this area.

At the same time, in accordance with the regulations on the state nature reserve of regional importance Kurgalsky, approved by the resolution of the Government of the Leningrad Region from April 8, 2010 No. 82 (in the edition of the Government of the Leningrad region of 05.04.2012 No. 99, dated May 6, 2016 No. 138 (hereinafter - the Regulations on the Reserve), the objectives of the reserve creation are:

- Preservation of the standards of natural complexes of coastal landscapes of the southern coast of the Gulf of Finland, massifs of natural and man-made forests of medium, southern and subtaiga;
- Maintenance of biological diversity, protection of rare flora and fauna species;

- Preservation of the shallow-water zone of the bay, which is the spawning grounds for commercial fish species and the place for natural purification of the waters of the Gulf of Finland;

- Protection of nesting colonies and migratory sites of waterfowl and water birds;

- Protection of lairs of grey and ringed seals;

- Organization of zones of regulated recreation

10.1. The following actions are prohibited on the territory of the reserve:

The use of new land plots for the development of quarries, construction, organization of gardening communities, gardening, farming, laying of communications, other types of industrial, agricultural and social use of land in the public and private sectors, except for the construction of communications and life support systems for existing settlements, taking into account their development, as well as the construction and development of border and navigation services;

The territory of the reserve is not zoned, so this regime extends to the entire territory of the reserve.

Thus, the reserve regime does not allow the construction of gas pipelines on its territory.

In accordance with the Federal Law "On Specially Protected Natural Territories" (Article 24), any activity is permanently or temporarily prohibited or restricted on the territories of state nature reserves, if it contradicts the objectives of creating state nature reserves or harms natural complexes and their components.

The landlords, owners and users of land plots that are located within the boundaries of the state nature reserves are obliged to comply with the special protection regime established in the state nature reserves and bear administrative, criminal and other legal liabilities for its violation.

Thus, the construction of the gas pipeline through the Kurgalsky reserve will be a violation of the Federal Law "On Specially Protected Natural Territories".

The regime of the Kurgalsky reserve is not reflected in the Espoo materials and other materials justifying the choice of the pipeline route.

Thus, Nord Stream 2 AG presented unreliable data.

4. Violation of the requirements of the Ramsar Convention.

According to the Convention on Wetlands of International Importance Especially as Waterfowl Habitat (clause 2 article 3: 2.) Each Contracting Party shall arrange to be informed at the earliest possible time if the ecological character of any wetland in its territory and included in the List has changed, is changing or is likely to change as the result of technological developments, pollution or other human interference. Information on such changes shall be passed without delay to the organization or government responsible for the continuing bureau duties specified in Article 8.

According to the article 8 of the Convention 1. The International Union for the Conservation of Nature and Natural Resources shall perform the continuing bureau duties under this Convention
until such time as another organization or government is appointed by a majority of two-thirds of all Contracting Parties.

2. The continuing bureau duties shall be, inter alia:

c) to be informed by the Contracting Parties of any changes in the ecological character of wetlands included in the List provided in accordance with Paragraph 2 of Article 3.

Thus, information on the planned environmental change should be sent to the Convention Bureau.


Consistent with the updated definition of “ecological character”, an updated definition of “change in ecological character of wetlands” is:

“For the purposes of implementation of Article 3.2, change in ecological character is the human-induced adverse alteration of any ecosystem component, process, and/or ecosystem benefit/service.

As follows from the materials of Espoo (clause 0.8.2.2):

The Narva Bay landfall is within an area that exhibits a high species diversity of flora and fauna. Vegetation clearance, soil removal and earthworks notably that required constructing the pipelines will affect a spectrum of habitat types resulting in impacts rankings ranging from negligible to moderate on flora and habitats. The moderate impacts are associated with loss and fragmentation of old growth forest, with complex moss flora, and relict dune. For old growth forest some loss will be permanent with reestablishment in other areas occurring over a long time. The forest areas and coastal and relict dunes also provide secure habitats for fauna. The loss of the supporting habitat combined with the loss of connectivity for some species beyond the area impacted result in a moderate impact ranking for fauna. Effects, associated with habitat fragmentation and loss of connectivity, will diminish as trees establish and canopy cover increase. Other impacts relate to soil compaction, alteration to hydrological regime, emission to air, operational noise and light generation but due to their short term and reversible nature and limited spatial extent will have negligible to minor rankings. For species particularly sensitive to noise, impacts may reach moderate ranking during construction activities.

The project will require temporary construction activities within the Kurgalsky Nature Reserve and result in some long term changes to habitats.

Thus, violations of various components of the ecosystem will take place in the territory of the Kurgalsky reserve, as a result of the construction of the gas pipeline.

According to the Resolution of the Government of the Russian Federation No. 1050 as of September 13, 1994 "On Measures to Ensure Compliance with the Obligations of the Russian Party Resulting from the Convention on Wetlands of International Importance especially as Waterfowl Habitat, dated February 2, 1971" and the Resolution of The Government of the Leningrad Region from December 14, 2004 No. 297 "On wetlands of international importance mainly as habitats of waterfowl in the Leningrad Region," the whole territory of the Kurgalsky reserve is a part of a wetland of international importance "Kurgalsky peninsula”.

Thus, as a result of the construction of the gas pipeline, there will be ecological changes within the boundaries of the wetland.

Russia as a Party of the Convention did not inform the Bureau of the Convention on the planned ecological changes in the Kurgalsky Peninsula wetland as a result of the construction of the Nord Stream 2 gas pipeline prior to the start of the international consultation procedure.
Thus, the Espoo materials provide for the violation of the requirements of the Convention on Wetlands of International Importance, mainly as a habitat for waterfowl by the Russian State Party.

In addition, according to the regulations on the wetland area "Kurgalsky Peninsula", which is of international importance mainly as habitats for waterfowl, approved by the Resolution of the Government of the Leningrad Region No. 297 dated 14.12.2004 (clause 13), the following is prohibited on the territory of a wetland:

a) All kinds of activities that lead to the violation of the natural hydrological regime in the water bodies of the wetland.

As indicated above, the construction of the pipeline will have an impact in the form of a change in the hydrological regime.

In addition:
According to the clause 9.3.1 of the Espoo materials *The onshore route cuts through the northern edge of one of these large bogs, the Kader swamp, where drainage is mainly south-west to north-east.*

According to clause 9.7.2.3 Within the area potentially affected by the landfall, habitats supporting the highest value species are particularly associated with the coastal dune community including natural forest immediately inland, relict dune system and the Kader swamp. *The landfall area therefore qualifies as being of high importance because it is part of an area that is specifically targeted for international conservation internationally and nationally and that supports high value species and significant populations of congregatory species.*

According to clause 10.3.2.1 The hydrology within the Kader swamp and modified habitat underpins the variety of high value habitats across the Kurgalsky reserve, so must be considered to have a high sensitivity.

During construction, removal of vegetation and earthworks may alter the natural drainage patterns both above and below ground, with regard to the location and the intensity of the flows. Water flow may become concentrated due to e.g. the introduction of hard standing areas or the removal of vegetation. This may in turn result in a localised increase in soil erosion and increased sediment load in nearby water bodies.

*The open-cut section of the pipeline corridor from the PTA crosses the northern part of the Kader swamp, relict dune, primary forest and coastal dune. Construction of the pipeline and the PTA will require vegetation clearance, topsoil stripping, grading and compaction of the ground and excavation of the trench and associated storage of the excavated material in the working width. These activities have the potential to interfere with the local drainage patterns and hence the local hydrology. The surface hydrology and hydrogeology is, however, mainly recharged from pluvial water sources (rainfall and snowfall), as opposed to groundwater and surface water flow, and the poorly draining podzol soils, along with the flat topography, mean there is limited groundwater flow. The soil for the trench backfilling will have the same filtration properties as underlying soils to ensure the adequate water drainage.*

Thus, the construction of a gas pipeline through the territory of the "Kurgalsky Peninsula" wetland will be a violation of the regime of a wetland of international significance.

5. The application of "double standards" while deciding on the route of the pipeline in Germany and Russia.

According to clause 5.5.1.1 of the Espoo materials:
In Germany, the shore crossing point is characterised by a 200 m wide belt of sensitive coastal forest. A conventional open cut construction methodology through the forest belt would lead to a permanent loss of habitat and changes in landscape character, as the forest would not be reinstated due to the need to protect the pipelines from tree roots. Nord Stream 2 AG has explored the alternative of twin 700 m long micro-tunnels, with entry pits located within the onshore gas receiving facility and exiting in shallow waters. The micro-tunnel shore crossing method, which has been assessed to be technically feasible, has been selected as the preferred construction method and is described in Chapter 6 – Project description. The advantages of micro-tunnelling as opposed to open cut pipeline installation in Germany include:

• Eliminating temporary environmental disturbance along the pipeline routes during construction with impacts limited to the tunnel portals;
• Avoiding the need for reinstatement of forest habitat in the temporary working corridor;
• Eliminating the need for a cofferdam for the shore crossing and associated construction impacts at the beach–sea interface;
• Avoiding direct impacts on tourism use of the beach area, as disturbance is confined to construction of the exit portal which is both small scale and of short duration;
• Avoiding permanent disturbance of habitat for the onshore pipeline section, as the tunnel would be beneath the root base, allowing for trees to be left in place without risk to the buried pipelines.

At the same time, according to the clause 5.5.1.2 of the Espoo materials:

In Russia, the preferred landfall location is Narva Bay, subject to final approval by the Russian Federation authorities.

A wide-ranging series of trenching options were initially considered including various trenchless techniques. A shortlist of four technical options is being investigated in more detail by a team comprising environmental experts and engineers. For each option, vulnerability of the habitats that would be affected by the onshore section of the pipeline system and constructibility constraints are being assessed. The habitats are identified in the figure below.

![Habitat Types](image)


Figure 5-7 Habitat types along the pipeline onshore section in Russia.

The base case method is for conventional open cut construction with an approximately 3,800 m open cut with 85 m wide right of way (ROW) from the pig trap area (PTA) to the shoreline. As an alternative to this base case, an optimisation is being considered. The optimised open cut alternative maintains an 85 m wide ROW through habitats G and F to the relict dune formation (habitat E) and then the ROW narrows to 56 m to traverse through the secondary forest and forest (habitats D and C). Both open cut solutions cross the shoreline via a 300 to 500 m long cofferdam, which transitions into a trench extending some 3’300 m offshore.

Various trenchless options that are also being considered as an alternative to the base case method are:

• Option 2: open cut from PTA to east of dune (2 km) with a pipeline corridor width of 85 m. 1.5 km micro-tunnel through dune and forest shore crossing with cofferdam and nearshore trench.)
• **Option 4a**: open cut from PTA to west of dune (2.3 km) and pipeline corridor width of 85 m. 2.0 km micro-tunnel through forest and tunnel exit pit 500 m from shore dredged flotation channel for pipe-laying vessel.

• **Option 4c**: open cut from PTA to east of dune (2 km) and pipeline corridor width 85 m. 2.4 km micro-tunnel through dune and forest and tunnel exit pit 500 m from shore. Dredged flotation channel for pipe-laying vessel.

While it has been possible to select a micro-tunnel crossing for the German landfall, the significantly longer trenchless section involved at the Russian landfall poses a substantially greater risk with respect to constructibility. The base case conventional open cut construction method is being evaluated by the NSP2 engineers and environmental experts in parallel with the trenchless alternatives. A decision on the construction method will be taken later in the year once engineering feasibility and constructibility studies are complete.

In this clause, the principle of double standards can be clearly seen. In Germany, where the value of the coastal territory is disproportionately smaller than the territory of the Kurgalsky reserve, Nord Stream 2 AG nevertheless considers it possible to use microtunneling method in the construction, justifying this by the advantages of this method.

In Russia, under similar conditions and incomparably greater (albeit deliberately understated) value of the Kurgalsky reserve, the "**traditional method of construction with an open trench with corridor width of 85 m**" is adopted.

It us thereby acknowledged that environmental requirements in Germany are much higher than in Russia.

In addition, this refutes the conclusion on the reversibility of the impact resulting from the construction of the pipeline using an open trench method:

Eliminating temporary environmental disturbance along the pipeline routes during construction with impacts limited to the tunnel portals;
• Avoiding the need for reinstatement of forest habitat in the temporary working corridor;
• Eliminating the need for a cofferdam for the shore crossing and associated construction impacts at the beach–sea interface;
• Avoiding direct impacts on tourism use of the beach area, as disturbance is confined to construction of the exit portal which is both small scale and of short duration;
• Avoiding permanent disturbance of habitat for the onshore pipeline section, as the tunnel would be beneath the root base, allowing for trees to be left in place without risk to the buried pipelines.

It should also be noted that the use of microtunneling technology or horizontally directed drilling in such cases (crossing the SPNTs) is provided for in clause 10.2.2 "Horizontal Directional Drilling" of STANDARD OF ORGANIZATION "GAS PIPELINES" STO Gazprom 2-2.1-249-2008 (APPROVED AND IMPLEMENTED by the order of OAO Gazprom as of August 26, 2008 No. 258):

10.2.2.1 The method of horizontal directional drilling (HDD) (closed method) consists of dragging a gas pipeline through pre-drilled wells.

10.2.2.2 **The construction of gas pipeline crossings through water barriers by HDD is recommended to be carried out in narrow, built-up areas of rivers, near existing pipeline crossings, existing protected or closed areas, in places requiring high environmental protection during the construction of the crossing.**

Thus, Nord Stream 2 AG is not guided by the standards of its main shareholder.
At the same time, the adoption of the most destructive trench pipeline construction method while it is possible (as shown by the example of Germany) to use incomparably more gentle method of microtunneling (or HDD) is a failure of precautionary measures aimed at minimizing the harmful impact on the environment.

In accordance with CONVENTION ON ENVIRONMENTAL IMPACT ASSESSMENT IN A TRANSBOUNDARY CONTEXT (article 4, clause 1) The environmental impact assessment documentation to be submitted to the competent authority of the Party of origin shall contain, as a minimum, the information described in Appendix II. According to Appendix II Information to be included in the environmental impact assessment documentation shall, as a minimum, contain, in accordance with Article 4:

(a) A description of the proposed activity and its purpose
(b) A description, where appropriate, of reasonable alternatives (for example, locational or technological) to the proposed activity and also the no-action alternative;
(c) A description of the environment likely to be significantly affected by the proposed activity and its alternatives;
(d) A description of the potential environmental impact of the proposed activity and its alternatives and an estimation of its significance;
(e) A description of mitigation measures to keep adverse environmental impact to a minimum;

As indicated in the comments, Nord Stream 2 AG presents an incomplete and unreliable description of those elements of the environment that are likely to be significantly impacted by the proposed activity or its alternatives, as well as a description of the possible types of environmental impacts of the proposed activity and its alternatives and an estimation of impact scale.

Thus, the Ministry of Natural Resources of the Russian Federation has sent to the contact persons of the Espoo Convention in Denmark, Germany, Latvia, Lithuania, Poland, Estonia, Sweden and Finland the documentation on environmental impact assessment for the construction of the offshore gas pipeline Nord Stream 2 developed by Nord Stream 2 AG in violation of Article 4 of the Convention on Environmental Impact Assessment in a Transboundary Context (The Espoo Convention).