



ESPOO ATLAS

Nord Stream 2
April 2017

W-PE-EIA-POF-DWG-805-040100EN

English Version

OFFSHORE PIPELINES THROUGH THE BALTIC SEA

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Nord Stream 2
April 2017

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The "Nord Stream 2 environmental impact assessment documentation for consultation under the Espoo Convention" will, hereinafter and throughout the entire documentation as submitted hereunder, be referred to as the "Nord Stream 2 Espoo Report" or the "Espoo Report".
The English version of the Nord Stream 2 Espoo Report has been translated into nine relevant languages (hereinafter referred to as the "Translations"). In the event that any of the Translations and the English version conflict, the English version shall prevail.

Introduction

Nord Stream 2 is a pipeline system through the Baltic Sea planned to deliver natural gas from vast reserves in Russia directly to the EU gas market to fill the growing gas import demand.

The twin 1,200 kilometre subsea pipelines will have the capacity to supply 55 billion cubic metres of gas per year in an economic, environmentally safe and reliable way, compensating for the drop in the EU's domestic production.

The privately funded €8 billion infrastructure project will ensure long-term access to an important, low emissions energy source, thereby contributing to the EU's climate protection efforts. Additional supplies will boost competition in the market and support the EU's global industrial competitiveness.

Nord Stream 2 follows in the footsteps of the successful experience of construction and operation of the existing Nord Stream Pipeline, which has been recognised for its high environmental and safety standards, green logistics, open dialogue and public consultation.

Atlas maps

This ATLAS is part of the Espoo documentation for the planned Nord Stream 2 pipeline system.

The purpose of this ATLAS is to describe the general geographical distribution of physical, chemical and biological parameters in the Baltic Sea around the planned offshore pipeline.

When reading the text part of the EIA there will be references to the ATLAS. The individual Atlas maps are presented in a sequence that reflects the structure of the report.

The ATLAS maps are based on information from authorities, organisations and international databases, data gained from existing Nord Stream pipeline project, and on data from Nord Stream 2 field surveys carried out in 2015 – 2016 along the planned pipeline corridor.

The references used are shown in the ATLAS map legends.

Please be aware that the marked route of the pipeline on the maps is not representative of the actual pipeline width. It serves merely as an indication of the route.

An overview of the topics covered by the ATLAS and of the individual ATLAS maps is shown overleaf.

Note:

General references on all Atlas maps:

- Limits of Exclusive Economic Zones and Territorial Waters: IBRU May 2010

- Background sea charts are "Not to be used for navigation"

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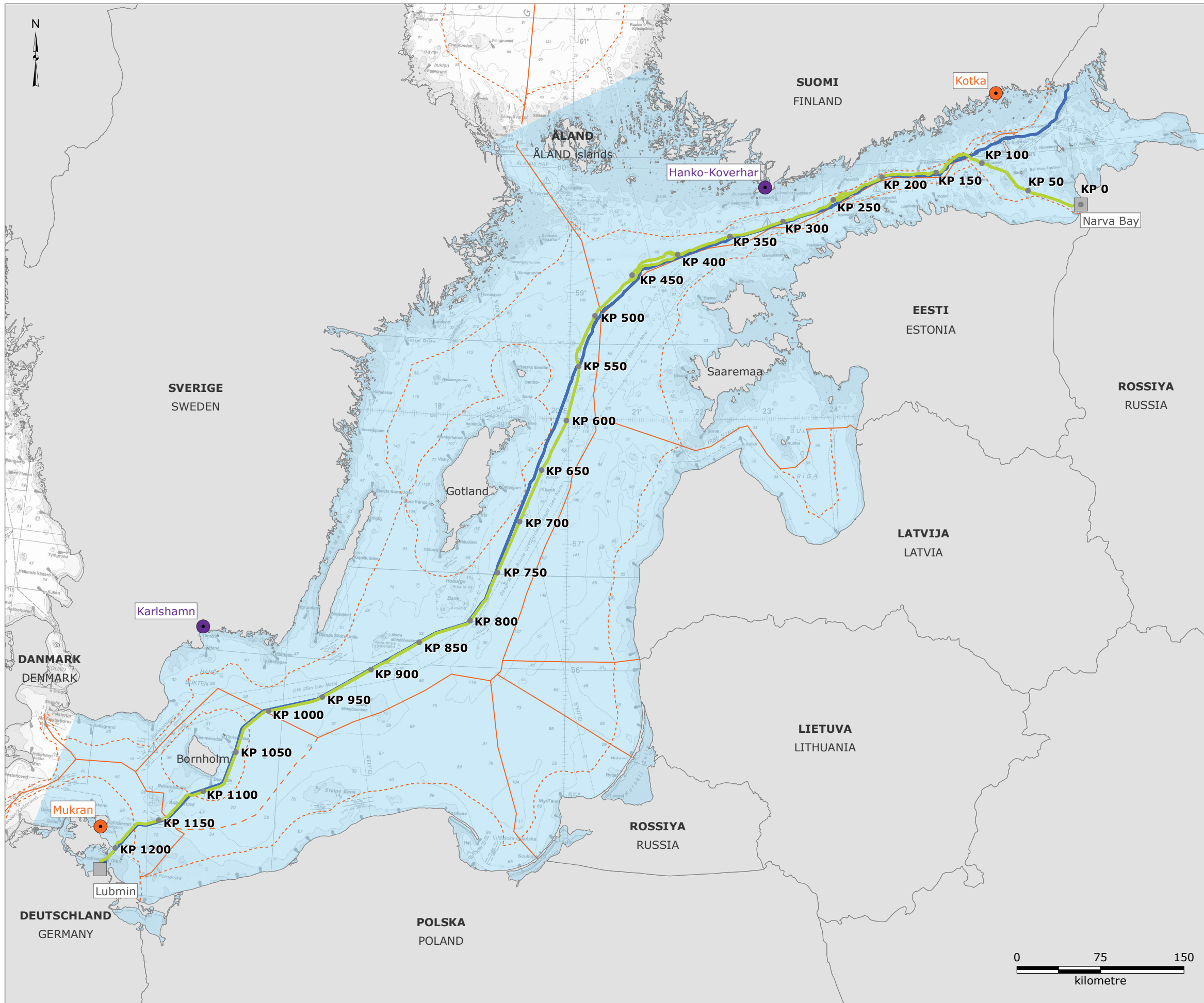
Noise in air

Map NA-01-Espoo Airborne noise propagation during NSP2 pipe laying

DESCRIPTION OF THE PROJECT

DESCRIPTION OF THE PROJECT

DESCRIPTION OF ALTERNATIVES



Legend:

- NSP2 Route
- NSP Route
- Territorial water border
- EEZ border
- Midline between Denmark and Poland
- Kilometre point (distance from landfall Narva Bay (km))

Storage yards:

- Pipe coating plant/
Pipe storage site
- Pipe storage site
- Landfall

Project area:

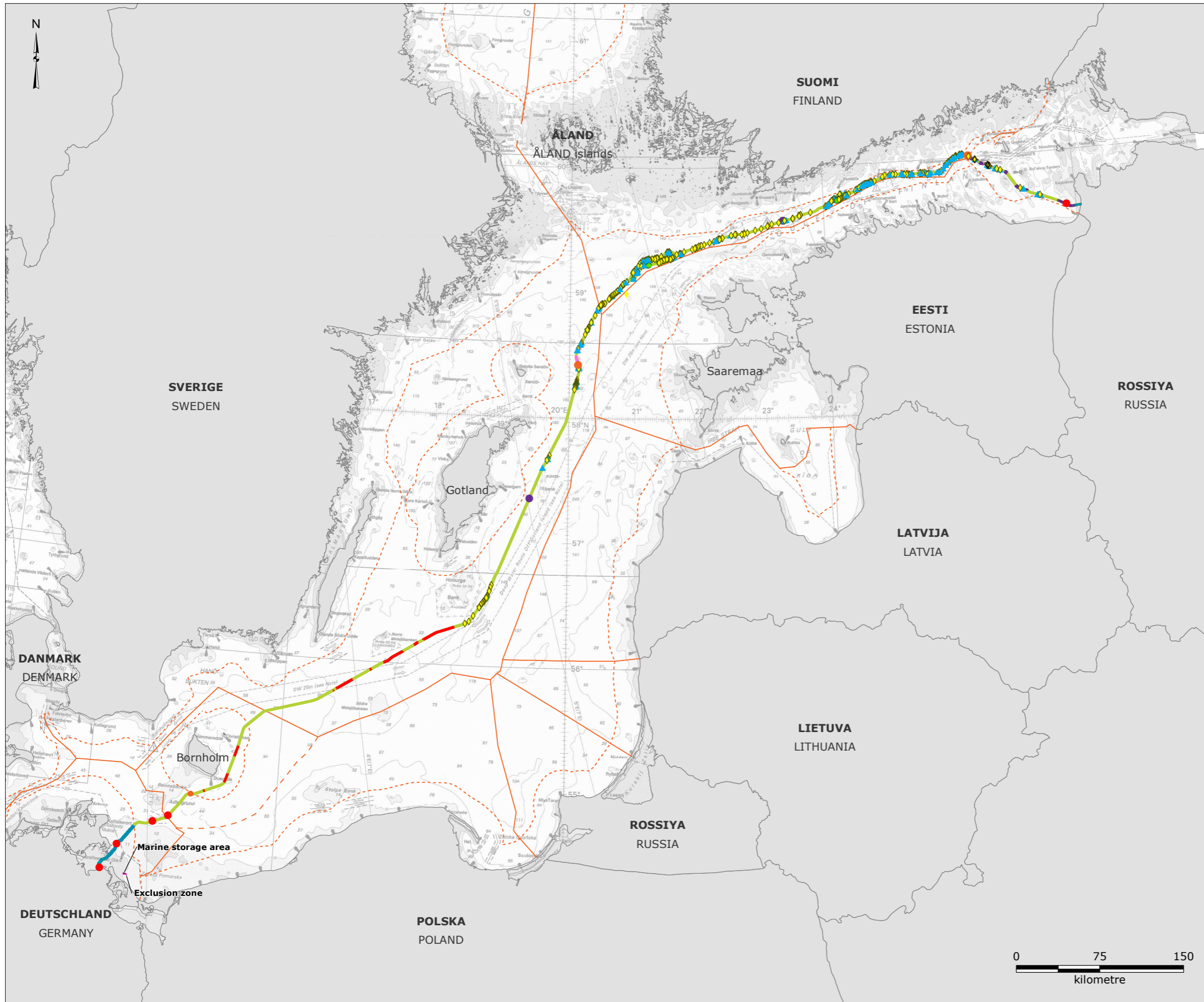
- Offshore section

Version: 08
 Date: 2017-03-13
 Prepared: MSTB
 Controlled: JLA

PR-01-Espoo

Preferred pipeline route and onshore facilities





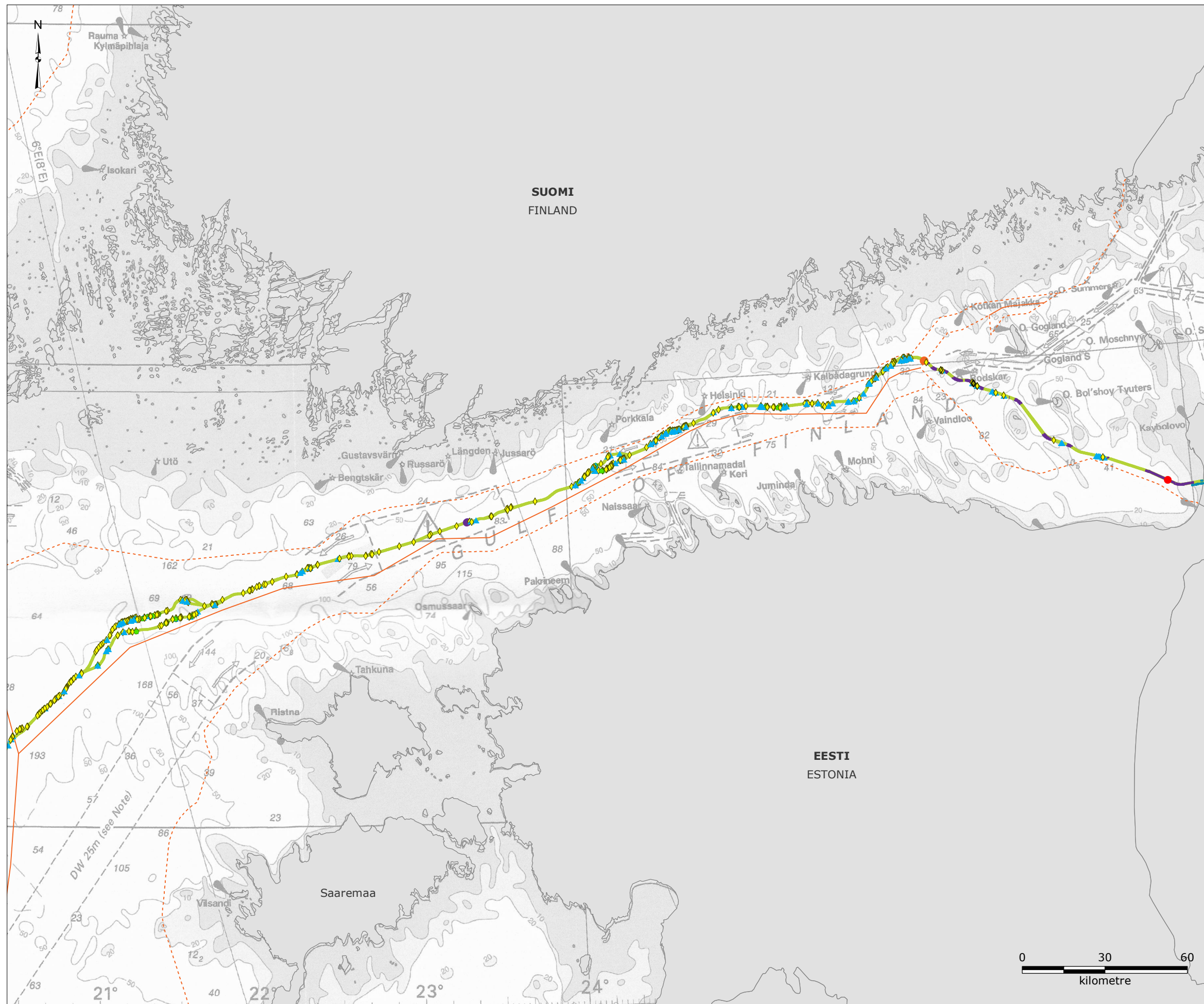
- Legend:**
- NSP2 Route
 - Territorial water border
 - EEZ border
 - Midline between Denmark and Poland
 - Potential hyperbaric tie-in
 - Potential above water tie-in
 - In-service buckling
 - Spot rock placement
 - Post-lay trenching (by plough)
 - Dredging
 - Proposed storage area for NSP2 storage
 - Exclusion zone
- Rock placement locations:
- Pre-lay
 - ◆ Post-lay, 2nd phase
 - ▲ Post-lay, 3rd phase
 - Pipeline crossing

Version: 08
 Date: 2017-02-14
 Prepared: MSTB
 Controlled: JLA

PR-02-Espoo

Preferred pipeline route and anticipated seabed intervention works





- Legend:**
- NSP2 Route
 - Territorial water border
 - EEZ border
 - Potential hyperbaric tie-in
 - Potential above water tie-in
 - In-service buckling
 - Dredging

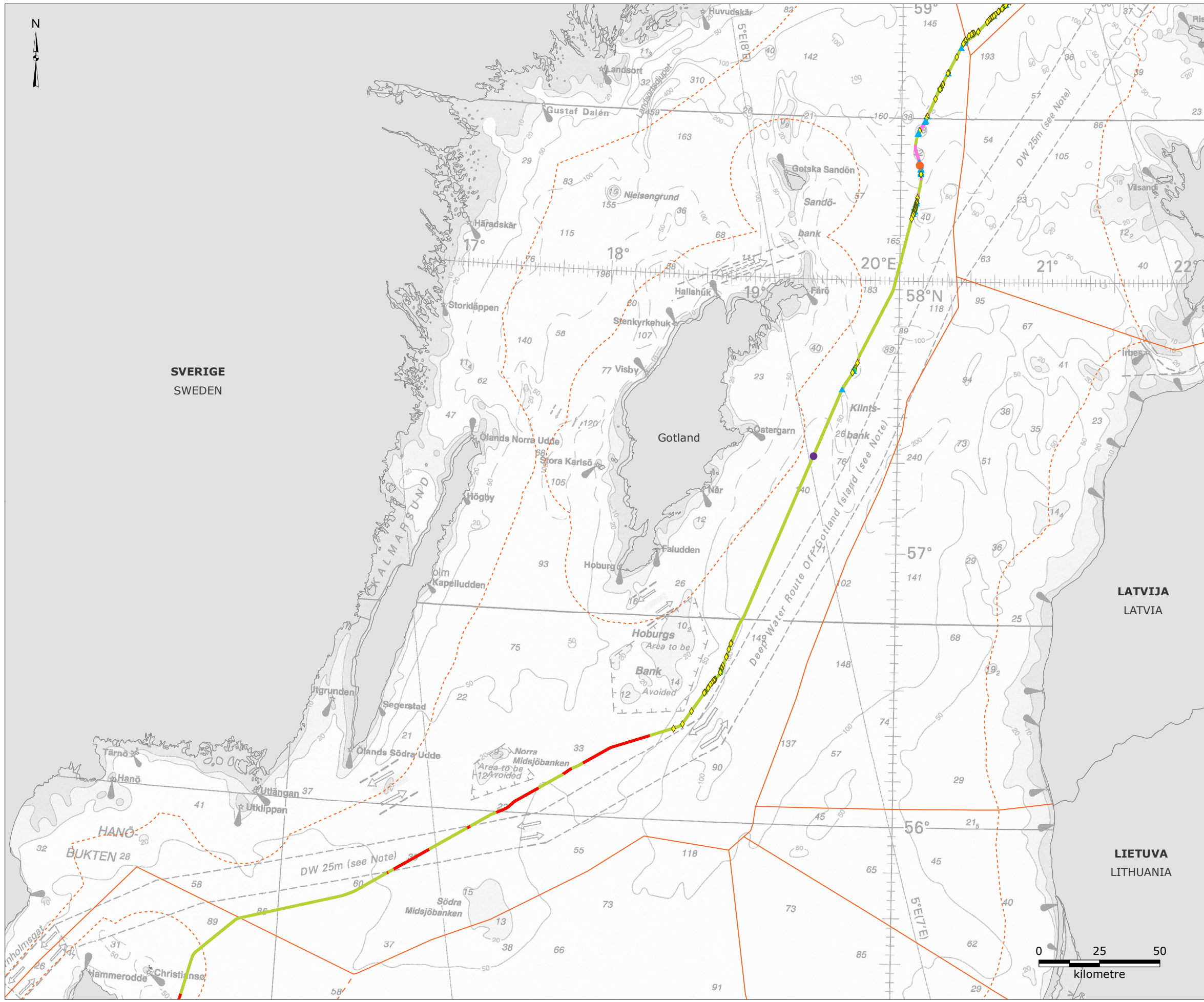
- Rock placement locations:**
- Pre-lay
 - ◆ Post-lay, 2nd phase
 - ▲ Post-lay, 3rd phase
 - Pipeline crossing

Version: 05
 Date: 2017-02-07
 Prepared: MSTB
 Controlled: JLA

PR-03-Espoo

Preferred pipeline route and anticipated seabed intervention works in Gulf of Finland





- Legend:**
- NSP2 Route
 - Territorial water border
 - EEZ border
 - Midline between Denmark and Poland
 - Potential hyperbaric tie-in
 - Spot gravel dumping
 - Post-lay trenching (by plough)
- Rock placement locations:**
- Pre-lay
 - ◆ Post-lay, 2nd phase
 - ▲ Post-lay, 3rd phase
 - Pipeline crossing

SVERIGE
SWEDEN

LATVIJA
LATVIA

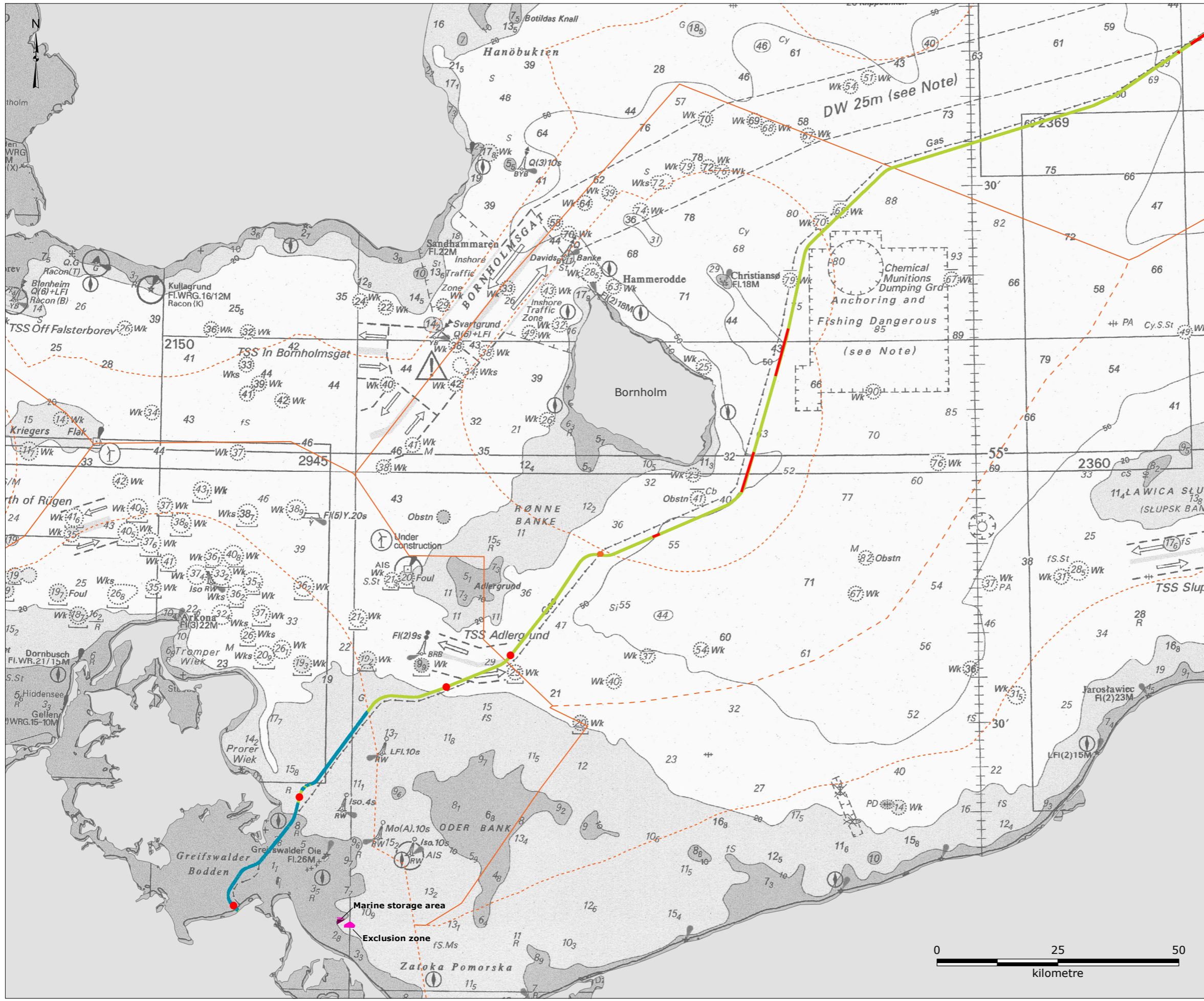
LIETUVA
LITHUANIA

Version: 06
Date: 2017-02-10
Prepared: MSTB
Controlled: JLA

PR-04-Espoo

Preferred pipeline route and anticipated seabed intervention works in Baltic Proper



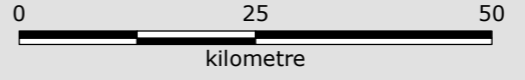


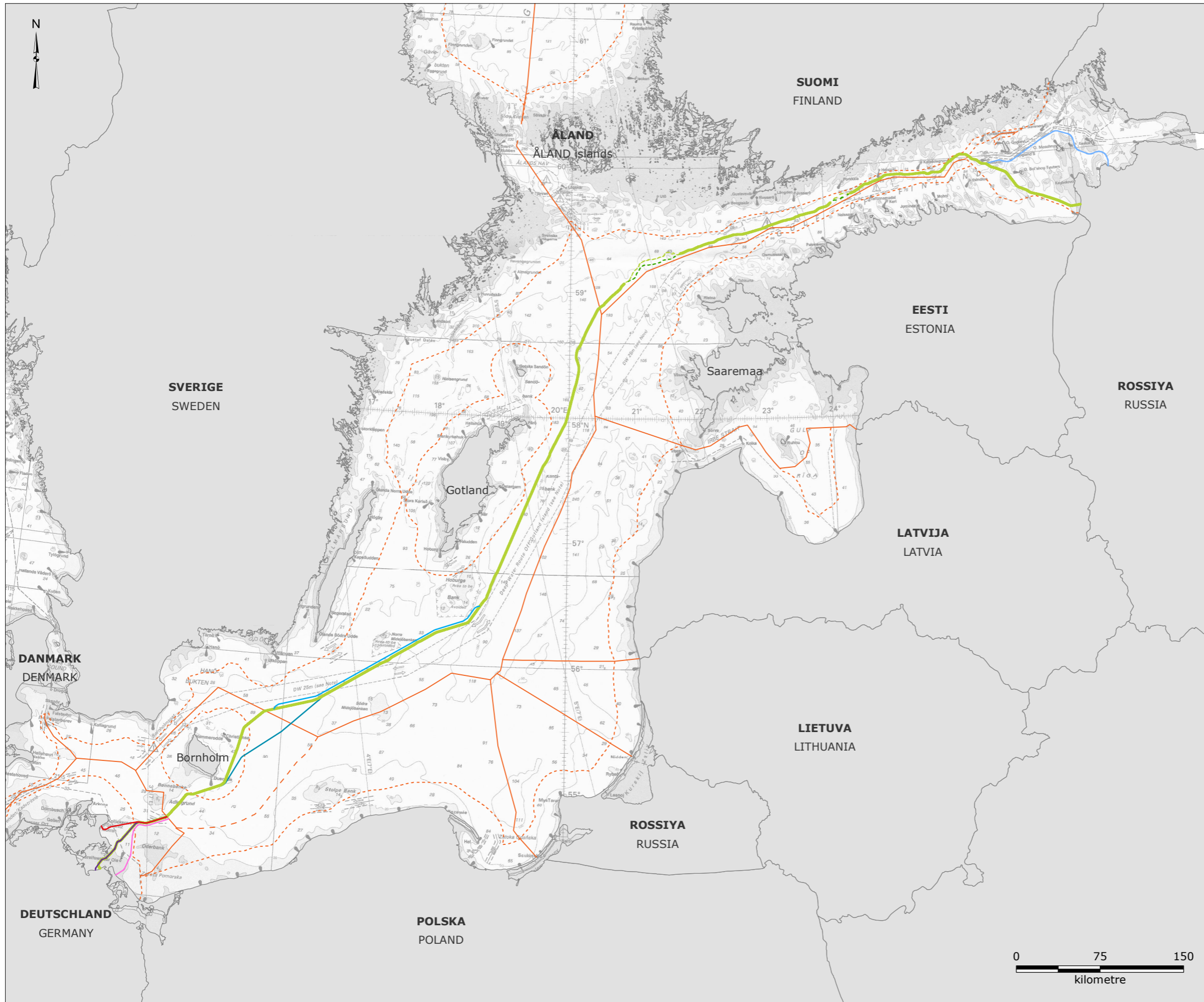
- Legend:**
- NSP2 Route
 - EEZ border
 - - - Midline between Denmark and Poland
 - · · Territorial water border
 - Potential above water tie-in
 - Post-lay trenching (by plough)
 - Dredging
 - Proposed storage area for NSP2 storage
 - Exclusion zone
- Rock placement locations:
- Pipeline crossing

Version: 08
 Date: 2017-02-14
 Prepared: MSTB
 Controlled: JLA

PR-05-Espoo

Preferred pipeline route and anticipated seabed intervention works in southern Baltic Sea





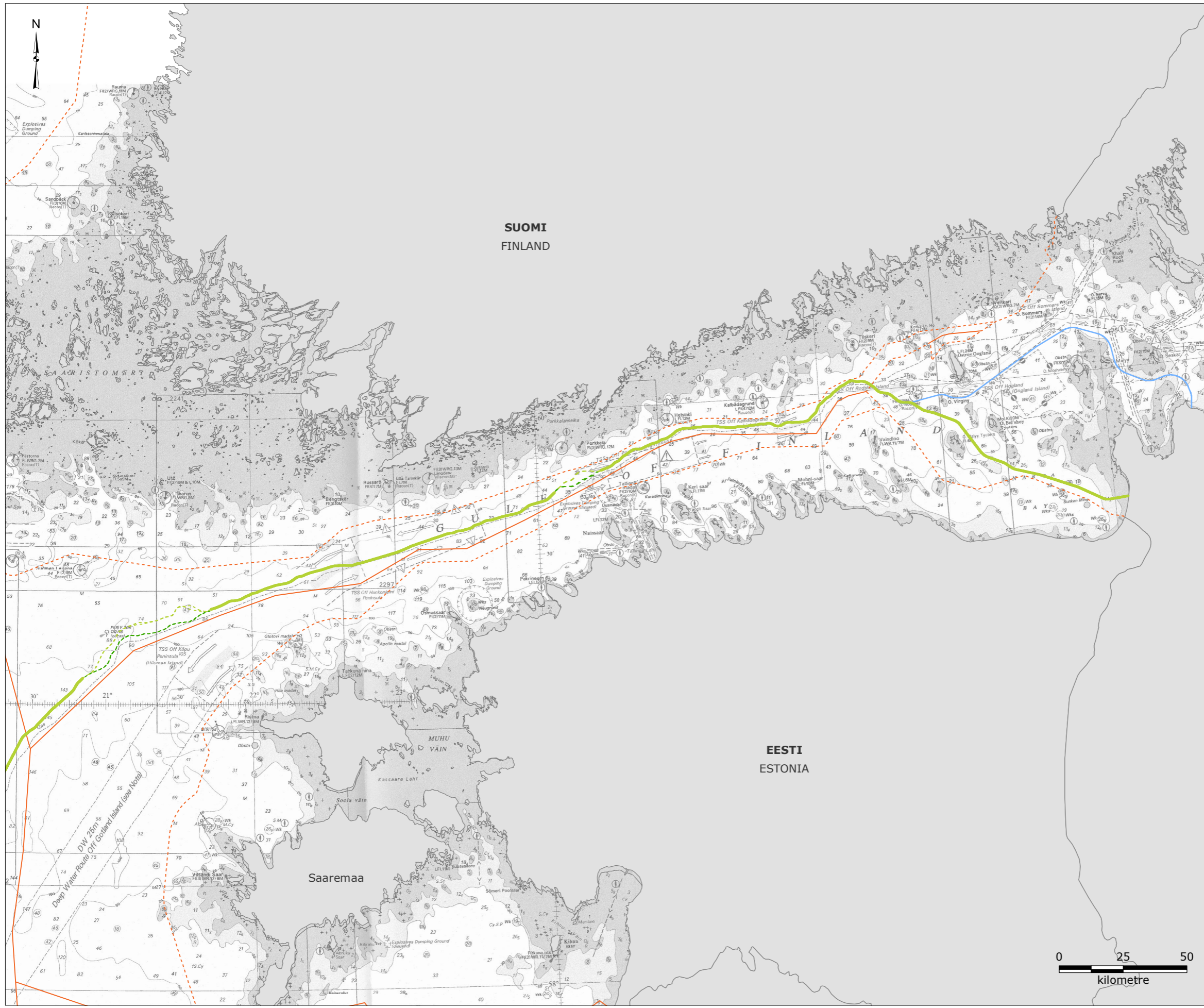
- Legend:**
- ES Route (proposed NSP2 Route)
 - Kolganpya Route
 - ALT E1
 - ALT E2
 - ALT W1
 - ALT W2
 - FS_new Route
 - RA Route
 - Mukran Route
 - Vierow Route
 - Usedom Route
 - Territorial water border
 - EEZ border
 - Midline between Denmark and Poland

Version: 06
 Date: 2017-02-10
 Prepared: MIRS
 Controlled: OM

AL-01-Espoo

Alternative NSP2 pipeline routes





- Legend:**
- ES Route (proposed NSP2 Route)
 - Kolganpya Route
 - - - ALT E1
 - - - ALT E2
 - - - ALT W1
 - - - ALT W2
 - - - Territorial water border
 - EEZ border

Version: 03
 Date: 2017-01-25
 Prepared: MIRS
 Controlled: OM

AL-02-Espoo

**Alternative pipeline routes
 in Gulf of Finland**





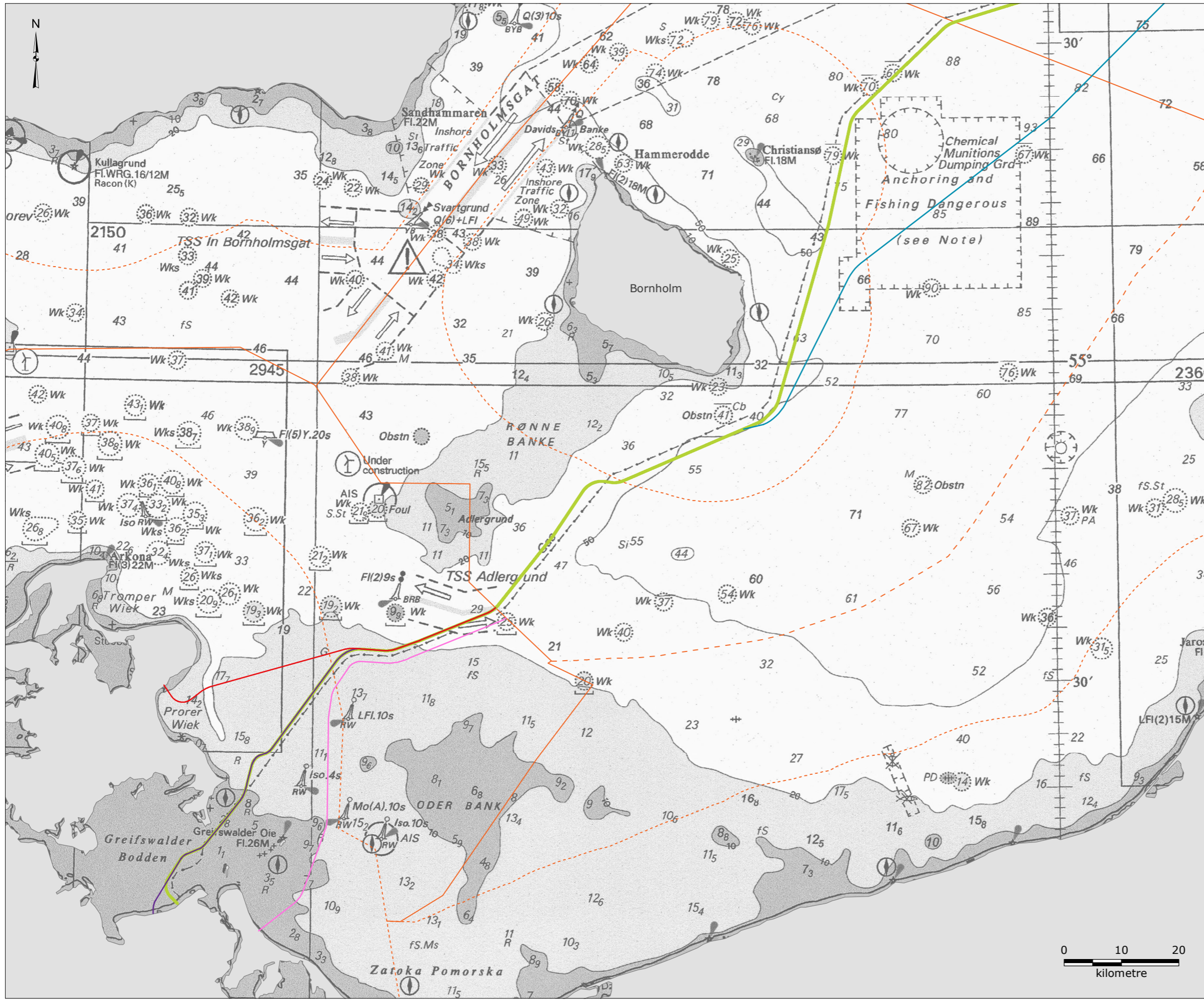
- Legend:**
- ES Route (proposed NSP2 Route)
 - FS_new Route
 - RA Route
 - Territorial water border
 - EEZ border

Version: 06
 Date: 2017-02-10
 Prepared: MIRS
 Controlled: OM

AL-03-Espoo

**Alternative pipeline routes
 in Baltic Proper**





- Legend:**
- ES Route (proposed NSP2 Route)
 - RA Route
 - Mukran Route
 - Vierow Route
 - Usedom Route
 - Territorial water border
 - EEZ border
 - Midline between Denmark and Poland

Version: 04
 Date: 2017-01-26
 Prepared: MIRS
 Controlled: OM

AL-04-Espoo

**Alternative pipeline routes
 in southern Baltic Sea**

