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State of Conservation

Wadden Sea World Heritage Site

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Task Group World Heritage (TG-WH)



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This is an Annex to the letter “*State of Conservation Report for the Wadden Sea World Heritage Site: Trilateral Response of the Nature NGOs*”, sent on 28 February 2024 to the UNESCO World Heritage Centre.

The Annex contains comments by the Nature NGOs on the State of Conservation report (SoC report) of the State Parties. Many of these comments were originally made on the text of an earlier consultation version of this report from 12 January 2024 and submitted to the State Parties. However, as the final version of the SoC report has been modified at a number of text passages, the respective NGO comments had also to be modified for a better understanding.

The blue colour marks the comments by the Nature NGOs. In some cases a yellow colour was used to indicate the text to which a comment refers.

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Preface

The World Heritage Committee’s Decision 45COM 7B.23 expresses concerns about different human activities within, near, or beneath the transboundary World Heritage Site “The Wadden Sea”, including gas, oil, and salt extraction as well as infrastructure for renewable energy and their potential cumulative effects that should be addressed in a joint Strategic Environmental Assessment. Therefore, the States Parties of Denmark, Germany, and the Netherlands received various requests which are addressed in this report as a joint answer of the three States Parties, organised within the Trilateral Governmental Cooperation on the Protection of the Wadden Sea, in short Trilateral Wadden Sea Cooperation (TWSC).

Comment by Nature NGOs: During the stakeholder consultation in January 2024 we pointed out that decision 45COM 7B.23 includes additional mandates, namely that critical fossil projects (e.g. Ternaard, GEMS, Mittelplate) should be reconsidered and that project proposals should only be permitted if adequate assessments demonstrate that they will not have an adverse impact on the OUV of the property.

Additionally, with letter CLT/WHC/EUR/23/14506 from 31 October 2023, the States Parties were requested to use the compulsory format for the submission of state of conservation reports by the States Parties (Operational Guidelines, Annex 13). In the same letter, the States Parties were strongly encouraged to consider Decisions 45 COM 7.1 and 45 COM 7.2 addressing general conservation issues.

This report responds to the requests in the World Heritage’s Committee Decision 45COM 7B.23 and summarises the most recent developments concerning the state of conservation and factors affecting the property, building upon information submitted in the nomination dossiers of 2008 (Dutch-German nomination), 2010 (minor boundary modification), 2013 (extension Denmark and Germany), the state of conservation report prepared by the States Parties in 2016, communications between the World Heritage Centre and the States Parties in accordance with para. 172 and 174 of the Operational Guidelines between 2017-2023, the Wilhelmshaven Declaration (2023), the Wadden Sea Plan (2010), the SIMP Integrated Management Plan for ONE Wadden Sea World Heritage (2023), the results from the Wadden Sea Quality Status Report 2016, 2019-2023, and on additional information received during consultation.

Comment by Nature NGOs: It appears that State Parties feel that they did integrate comments made during the stakeholder consultations. However, none of the NGOs submitting this letter and the Annex have the impression that much of their perspectives on the state of conservation, requiring better protection of the Wadden Sea and its OUV was included in the final SOC report sent to the UNESCO World Heritage Centre.

In addition, the three States Parties remain active in the implementation of other related international policies and conventions that add to the management system of the Wadden Sea World Heritage Site. This includes the Sustainable Development Goals of the Agenda

2030 for Sustainable Development, the Kunming-Montreal Global Biodiversity Framework, and the Climate Action for World Heritage.

Comment by Nature NGOs: It should be noted that the lack of implementation of both European and international law in the Wadden Sea is a major concern, not least in The Netherlands as illustrated by this recent report:

<https://www.waddenacademie.nl/organisatie/publicatie-lijst/publicatie-detail/de-europees-en-internationaalrechtelijke-status-van-de-waddenzee/>. See also:

<https://www.waddenacademie.nl/organisatie/publicatie-lijst/publicatie-detail/reflectie-met-beleidsaanbevelingen-naar-aanleiding-van-het-rapport-de-europees-en-internationaalrechtelijke-status-van-de-waddenzee/>

The process of developing the SOC

Shortly after the 45th World Heritage Committee meeting (10-25 September 2023), the trilateral Task Group World Heritage met and discussed possibilities to follow up on requests in Decision 45COM 7B.23. A temporary *ad hoc* group was formed to gain insight and form an idea on the development of a joint Strategic Environmental Assessment. The work of these groups led to a proposal concerning the response to the Decision 45COM 7B.23 requests. This proposal was agreed upon during the Wadden Sea Board 42 meeting (23 November 2023). On 6 December 2023, the full draft SOC report was backed by the TG-WH for stakeholder consultation.

Consultation took place between 6 December 2023 and 19 January 2024. It involved the trilateral level of the Wadden Sea Team of environmental NGOs, who contributed with comments and statements to the draft SOC report. Additionally, the group of NGOs informed the TWSC about their communication to the World Heritage Centre from 18 December 2023¹. The national consultation process, organised by each of the countries as far as appropriate and in accordance with their governance structures, involved:

In Denmark, the Regional Round Table (Det Rådgivende Udvalg For Vadehavet), consisting of multiple Wadden Sea stakeholders, representing both public authorities as well as non-governmental organisations, has been consulted in the writing process of the SOC report. The Danish Minister of the Environment and Minister of Culture was informed about the SOC report.

In Germany, the National Park Advisory Boards received the draft version of the SOC report for information, with the opportunity to provide comments. Advisory Boards are representatives from the regional and local governments as well as regional stakeholders concerned with commercial, recreational, and environmental interests and of scientific institutions. The federal ministry of environment and the respective ministries of the three federal states (Länder) were involved.

In the Netherlands, two working groups were formed for consultation of the SOC: one including all government layers in the Wadden Sea Region, which led to an agreement in the Policy Board; the second working group included the various ministries which led to an agreement on the headlines of the response by the full council of ministers in the Netherlands. Parliament was informed and given the possibility to steer on the content of the reply. The advisory board (Omgevingsberaad) consisting of economic stakeholders, NGOs and knowledge institutes received the draft version of the SOC report and provided comments.

This report was endorsed by the Wadden Sea Board.

¹ Third party communication ref WV/WvdH/TP/23075: World Heritage Wadden Sea in danger? 18 December 2023 received by UNESCO's World Heritage Centre.

1. Executive summary

The State of Conservation Report 2024 provides information at the requests of the World Heritage Committee in Decision 45COM 7B.23, Wadden Sea (Denmark, Germany, Netherlands) (N 1314ter).

Regarding the request (3) to adopt a precautionary and strategic approach to the management of the property and to clarify longer-term projections on climate change, the States Parties provide information regarding the latest trilateral strategies and policies aimed at improving management: the Climate Change Adaptation Strategy, The Integrated Management Plan for ONE Wadden Sea World Heritage (The SIMP) and the Governmental Council Declaration of the 14th Trilateral Governmental Conference on the Protection of the Wadden Sea, Wilhelmshaven Declaration 2023 (WD 2023). The work of the trilateral Expert Group Climate Change Adaptation, as well as periodic Wadden Sea Quality Status Reports on coastal risk management and climate change, support the analysis of climate change projections and the integration of climate change adaptation in management (Chapter 2.1).

The Report also addresses the requests (4, 13a) regarding extractive activities focussing on oil, gas, and salt mining. The States Parties inform the World Heritage Centre (WHC) that they have reconfirmed their agreement to prohibit construction of wind turbines, oil and gas exploration, and exploitation and construction of new installations for oil and gas within the property (WD 2023). **Exploitation in the vicinity of the property takes place following the best possible methods to protect the Wadden Sea ecosystem and safeguard its Outstanding Universal Value (OUV) and integrity (Chapter 2.2).**

Comment by Nature NGOs: We disagree, see our comments in Chapter 2.2.

A legislative proposal in the Netherlands to stop the issuing of permits for salt and gas extraction under the Wadden Sea World Heritage property will be sent to Parliament in 2024 (request 5). The WHC will be informed as soon as a decision has been taken regarding the gas extraction permit for the Ternaard gas development, together with a detailed response regarding the assessment of environmental impacts on the OUV of the property (request 6). The GEMS project for gas extraction is located 20 km off the World Heritage Site boundary and therefore extractive activities **are not extended below the property by the latter** (request 8).

Comment by Nature NGOs: The negative environmental impacts do extend into the property.

The models used by the Dutch approach to monitor gas and salt extraction, the so-called “hand on tap” system (Box 1), are periodically updated with the latest sea level rise projections, natural sedimentation estimations, and subsidence, and are further adjusted by field monitoring measurements. Accounting for uncertainties, and in line with a precautionary approach, conservative scenarios are applied. Additionally, the effectiveness

evaluation of the “hand on tap” as a policy instrument by an independent scientific advisory board concluded that, so far, it has been sufficient to protect the Wadden Sea World Heritage Site. Implementing the recommendations from the evaluation, such as paying more attention to uncertainties, long-term projections and increasing the frequency of improving the models, is on course (requests 3 and 7).

Comment by nature NGOs: The legal duty to prevent damage is a different obligation than stating a measure ‘has been sufficient’. There are different forms of damage to the composition of the seabed at places where subsidence due to mining occurred. ‘Hand on tap’ never considered this and hence proves to be something of an illusion when it comes to the legal duty to prevent damage to the OUV. In reality the ‘hand on tap’ methodology did not change and the recommendations referred to were not implemented.

Regarding the concerns that future sediment accretion might be insufficient to offset sea level rise in the basin of Vlie due to salt extraction, the results of a scientific study are expected by 2024. Additionally, the operators are to submit an update of their production plan from 2015, including a new strategy to minimize seabed subsidence after abandonment (request 10).

Comment nature NGOs: Whether or not artificial sediment transport (sand supplements from North Sea) will be sufficient is not at all the critical issue. Natural processes are damaged since artificial sand supplements are necessary to offset seabed subsidence due to salt mining. Hence the request by UNESCO to stop salt extraction appears to have been neglected here by the Netherlands.

Concerning the application of Wintershall Dea GmbH for extending their existing oil production field southwards, Wintershall Dea’s response to a hearing into a draft rejection notice is currently being evaluated (request 8 and 9).

The expansion of offshore energy transmission grids and pipelines is crucial for achieving the EU’s renewable energy targets and climate change mitigation goals. In the North Sea, projects and plans are increasing in number and density and are to be further upscaled and accelerated to reach the ambitious goals. Trilateral agreements to mitigate as much as possible the impacts of submarine high-voltage power cables and pipelines crossing the World Heritage Site are anchored in the WD 2023 as well as in The SIMP and the Wadden Sea Plan 2010. In this line, the PAWOZ Programme in the Netherlands aims at finding the most feasible and preferable routes. The Strategic Environmental Assessment (SEA) that is being prepared in the framework of the Programme will explicitly address the OUV (request 11). The State of Conservation Report also includes information regarding grid development planning in Denmark and Germany (Chapter 2.3).

Comment by Nature NGOs: While cables crossing the Wadden Sea are necessary to achieve the energy transition, we do not see sufficient effort in project proposals to choose also alternative locations that are already degraded (e.g. next to shipping lanes in the estuaries) rather than pristine parts of the property (e.g. Baltrum corridor with 5 new cable systems and potentially 14 (!) cable systems at the Langeoog corridor, whereby each system

includes a whole set of cables and several operations are required for each system to lay the cables underground, with habitat damage occurring during each operation). Furthermore, every effort must be made to bundle cable systems, as well as of course using the adequate techniques and timing minimizing the impact as much as possible. The pressure is particularly high in Lower Saxony (Germany) as well as on the way to Eemshaven (The Netherlands). This development could also lead to an increase in cables and/or pipelines in, underneath and around the island of Schiermonnikoog (NL).

The construction of new wind turbines is not allowed within the property, as stated in the WSP 2010 and reconfirmed in the WD 2023. The States Parties will recommend that competent authorities engaged in planning and approval of wind energy projects apply the new Guidance for Wind Energy Projects in a World Heritage Context in the framework of the mandatory impact assessment procedures, to support decision-making and make the respective outcome a recognisable part of the justification for the plan or approval decision (request 12). This report also includes information regarding wind energy projects in the vicinity of the Wadden Sea World Heritage Site (Chapter 2.4).

Current permitting procedures in the three countries strictly follow EU and national law, which also covers the aspect of potential adverse impacts including cumulative effects. Based on EU and national law, putting permitting procedures on hold while developing the joint strategic environmental assessment (SEA) might not be possible in all cases (request 13b and c). Effects on planned activities and economic and legal consequences need to be considered (Chapter 2.5).

Comment by Nature NGOs: Recent evaluations by the Dutch government indicate the opposite. A decline in natural values and protected species was observed and the ongoing permitting cycle for new projects or new permits for existing/damaging projects was identified as one of the factors causing the decline in natural values of Wadden Sea (https://www.rwsnatura2000.nl/gebieden/waddenzee/wz_nieuws/2636929.aspx?t=Natuur_bescherming-Waddenzee-kost-meer-tijd).

Regarding the request for conducting a joint SEA (request 13b), the States Parties acknowledge the need to continue developing knowledge on cumulative and combined effects of both climate change and human use. The States Parties think that the best way to developing a joint SEA is to base it on nationally implemented EU legislation. EU legislation considers the cumulative nature of impacts, as well as covering the requirements of the Guidance and Toolkit for Impact Assessments in a World Heritage Context. This task will build methodologically on environmental assessments established in planning and approval procedures in the three states, following the requirement to refer to the OUV. The States Parties propose a three-step process which is described in Chapter 2.6.

Comment by Nature NGOs: We see the joint SEA as a critical element for an adequate management of the property. However, there are several risks with the SEA which must be avoided (thus requiring some wording in the SOC report):

- (1) too much delay with the SEA given the reluctance of the State Parties to implement a permit-stop.
- (2) Too much written paper without the required clear signals for better protection.
- (3) Failure with the required content, as it is in our view not sufficient to base the joint SEA on nationally implemented EU legislation. Given the different policy focus under e.g. Natura 2000 compared to the World Heritage Convention and its emphasis on the OUV there is unlikely to be an adequate fit. The need to safeguard the OUV must be seriously taken into account in the SEA. For the case of Ternaard in The Netherlands a similar question was already posed to the Waddenacademie by the responsible Ministry, i.e. whether the assessment of activities against the Natura-2000 regime would also fulfil the assessment of the OUV. The study concluded that this would not be appropriate. This should be taken seriously regarding the focus and development of the methodology for the forthcoming Strategic Environmental Assessment mandated by the UNESCO WHC 45 decision. See study here: https://www.waddenacademie.nl/fileadmin/inhoud/pdf/o4-bibliotheek/2024-01_Memo_Waddenacademie_inzake_de_toetsing_aan_de_OUV.pdf.

Other current conservation issues which may have an impact on the OUV are presented in Table 2 of this Report. These are grouped by the SIMP key topics and other general issues and cover the time period since the 2016 SOC report (Chapter 3).

Developments or projects which may affect the OUV of the property, to be reported in conformity with paragraph 172 of the Operational Guidelines, will be referred to the ongoing communication with UNESCO (Chapter 4).

2. Response to the Decision 45COM 7B.23

2.1 Precautionary and strategic management approach including long-term climate change projections (Decision para. 3)

3. “Welcomes the development of the ‘Agenda for the Wadden Sea Region 2050’ in 2021 and the adoption of the ‘Single Integrated Management Plan’ (SIMP) for the transboundary property in 2023 and strongly encourages the States Parties of Denmark, Germany and the Netherlands to adopt a precautionary and strategic approach to the management of the property, including to clarify longer-term projections based on the latest scientific climate change data for the Wadden Sea;”

Trilateral policy instruments and organisational structures are in place in the Wadden Sea to support the analysis of climate projections and the integration of climate change adaptation into management. All Wadden Sea countries observe the effects of climate change through targeted monitoring (e.g., of sea level rise and natural sedimentation) and have regional climate change mitigation and adaptation strategies in place, which are revised regularly.

Comment by Nature NGOs: The State Parties should admit that not all of these documents cover also the maintenance of the OUV by climate adaptation – i.e. keeping the Wadden Sea in its size and as a natural and dynamic area – already to the necessary extent. Very recent information confirms the need for better and more ambitious management and protection given the speed and scale of impacts on the Wadden Sea by climate change (<https://www.nioz.nl/en/news/salt-gradient-in-the-wadden-sea-under-pressure-due-to-changing-climate>). There should be a stronger focus on climate adaptation, while not ignoring mitigating measures and ending fossil fuel mining, and strengthening the resilience of the Wadden Sea in a nature-friendly manner and in line with the Guiding Principle. For example, through the better protection or restoration of critical habitats such as saltmarshes, seagrass, or reefs built by blue mussels, flat oysters or riss worms. Furthermore, strategies for Wadden Sea climate adaptation and sediment management need to be tested, adapted and implemented, given that sediment is one of the critical factors in this ecological system permitting adaptation.

The Wadden Sea Plan 2010 already recognised climate change as a relevant theme for the Wadden Sea and, therefore, the trilateral strategy on increasing adaptability to its effects was developed. In the 2016 SOC report, the States Parties shared with WHC the trilateral Climate Change Adaptation Strategy (CCAS, included in Annex 4 of the 2016 SOC report). In The SIMP, climate change is taken up as a cross-cutting aspect aiming at supporting ongoing trilateral efforts. An overview of the trilateral policy instruments and structure to integrate climate change adaptation in management is provided below. A compilation of national instruments can be found in Annex 3 to this report.

The SIMP

The SIMP Integrated Management Plan for ONE Wadden Sea World Heritage² (SIMP 2023, Annex 2) is an overarching, trilateral strategy that facilitates a strategic, proactive, and collaborative transboundary management approach to maintaining the Outstanding Universal Value (OUV) and addresses the various pressures identified, including potential cumulative impacts. The SIMP, as an umbrella plan, supplements existing plans and strategies, in particular the Wadden Sea Plan 2010, and presents overarching information on how the Trilateral Cooperation is organised. It highlights five key topics (prioritised urgent threats) that need to be addressed at a trilateral level and shows how the TWSC is addressing the overarching effects of climate change as a cross cutting issue.

The SIMP includes proposals for management activities for climate change adaptation based on the work of the trilateral Expert Group Climate Adaptation (EG-C) and on the trilateral CCAS. Among the proposed activities are:

- Facilitate trilateral knowledge exchange and interdisciplinary discussions about the cumulative and combined effects of both climate change and human use to advise permitting procedures;
- Improve communication on OUV key values and climate change effects on the ability of the Wadden Sea to deliver ecosystem services in relation to economic, social, and cultural values;

The Trilateral Cooperation continuously stresses the imperative of climate mitigation measures, such as CO₂ emission reduction, and repeatedly refers to the Paris Agreement of the United Nations Framework Convention on Climate Change of 2016 in their governmental council declarations, including the recent Wilhelmshaven Declaration 2023. The three Wadden Sea countries signed the Paris Agreement and work on mitigation of climate change.

Comment by Nature NGOs: Since UNFCCC COP 28 in Dubai 2023 the necessity to move away from fossil fuels is even clearer than before. This is not yet reflected in the SIMP or in the Wilhelmshaven Declaration to the necessary extent, but it should be reflected in this report and become very important when considering existing or planned gas or oil mining in the property or close to it in the future.

The TWSC agreed to:

- “Support the global and national efforts to mitigate causes of climate change at the regional level, by calling especially upon local and regional competent authorities and stakeholders” (Sylt Declaration 2010). CO₂ emission reduction policies and plans are at the national levels and include transition to renewable energy.

Comment by Nature NGOs: This quote is cut off too soon, as § 24 of the Sylt Declaration 2010 actually states: „Support the global and national efforts to mitigate causes of climate change at the regional level, by calling especially upon local and regional competent authorities and stakeholders, to work towards developing the

² <https://www.waddensea-worldheritage.org/simp>

Wadden Sea Region into a CO₂-neutral area by 2030 or before, putting the focus on the special threats for coastal zones by global warming and sea level rise.” It is important to remind ourselves that the goal of CO₂-neutrality is set for 2030 (Sylt Declaration:

<https://www.waddensea->

[worldheritage.org/sites/default/files/2010_Sylt%20Declaration.pdf](https://www.waddensea-worldheritage.org/sites/default/files/2010_Sylt%20Declaration.pdf)).

- Explore and emphasise the potential of typical Wadden Sea habitats as "blue carbon" ecosystems to contribute to natural CO₂ sequestration (e.g. saltmarshes, sediments), while taking into account anthropogenic pressures possibly impacting these processes (see SIMP, Chapter 4. Climate change vulnerability and adaptation).

The Wilhelmshaven Declaration

With the recent Trilateral Governmental Council Declaration on the protection of the Wadden Sea, the Wilhelmshaven Declaration³ (WD, 2023, Annex 2), the States Parties have set the political aims of the Trilateral Wadden Sea Cooperation for the upcoming period (2023-2026). They agreed, among others, to enhance the resilience of the Wadden Sea ecosystem and World Heritage property to impacts of the manifold challenges arising from the triple crises of climate change, biodiversity loss, and pollution. Now the States Parties are working to implement the agreements. In the chapter “Mitigate and adapt to Climate Change” (paras. 38-43), the ministers recognise and support initiatives to reduce greenhouse gas emissions and decarbonisation, focussing on the energy, traffic, and tourism sectors. The ministers instructed the Wadden Sea Board (WSB) to continue implementing the trilateral Climate Change Adaptation Strategy (CCAS, Annex 4, Tønder Declaration 2014), update it if needed, and to enhance and facilitate regular professional exchange on coastal flood defence and protection. Further, to promote investigations and stimulate appropriate initiatives on how Nature-Based Solutions for climate change adaptation can integrate coastal protection and water management with nature conservation goals (WD §§ 31, 40, 41).

Trilateral Climate Change Adaptation Strategy

The permanent trilateral working group monitors and stimulates the implementation of the trilateral CCAS, updates priorities, and provides recommendations for trilateral policies and projects based on the latest scientific climate change data and projections, supporting adaptive management. The expert group stimulates trilateral exchange of knowledge on the effects of climate change with respect to the morphology and ecology of the Wadden Sea and possible adaptation measures. It also contributes to the Trilateral Monitoring and Assessment Programme and thematic reports on geomorphology (addressing, among others, criterion viii), coastal risk management, and climate change of the Quality Status Report (QSR).

³ <https://www.waddensea-worldheritage.org/2023-wilhelmshaven-declaration>

Comment by Nature NGOs: In our view there is a need to move more strongly towards action and adaptive management, to be expressed also in the report. There is much need for trilateral exchange to jointly learn and put in place pilot projects on how the OUV can be maintained given the accelerated sea level rise and other impacts of climate change. This includes questions for the future: If and how to implement a “Growing with the Sea” policy? What can be achieved by sediment management? What potential is there trilaterally to shift parts of the Wadden Sea habitats further inland? At what scale is nature-friendly coastal realignment feasible and agreeable? How could the potential ecosystem services that nature restoration brings with it best be harnessed?

Wadden Sea Quality Status Reports

The thematic report on Climate Change was last published in 2017; a new assessment is in progress and is **expected to be released in 2024**. The thematic report contains a comprehensive overview on the trilateral level of the status and trends in greenhouse gases, weather and climate, hydrodynamics, morphodynamics, and biodiversity (including invasive species and ecosystems as well as human activities). The report gives research-based recommendations for monitoring, further research, and management. The QSR recommendations represent scientific advice to the Trilateral Governmental Council (formed by the responsible ministers of the participating governments) about priority issues that need further attention.

Comment by Nature NGOs: The updated thematic report on climate change was released in February 2024. Its conclusions were alarming and need to be brought to the attention of UNESCO by the State Parties as a matter of urgency as part of this SoC report since it confirms the need for decisions called upon by UNESCO but neglected so far by the State Parties.

2.2 Natural resource extraction below the property, including a map (Decision paras. 4 and 13a)

4. Reiterates its position that extractive activities are incompatible with World Heritage status, and considers that natural resource extraction below the property has the potential to adversely impact its Outstanding Universal Value (OUV);

Comment by Nature NGOs: A general remark on this chapter is, that the SoC report does not portray a complete picture of extractive activities in the Wadden Sea. Notably, sediment extraction (e.g. sand, silt, gravel) should be included, e.g. for shipping-related dredging, for beach replenishments, for coastal protection, and for climate adaptation (and also combinations of these purposes). This also concerns the cumulative impact assessment.

Developments since the 2016 SOC report regarding extractive activities have been addressed in communications with WHC in conformity with paragraphs 172 and 174 of the Operational

Guidelines. The further WHC requests are addressed in the following text organised by gas, salt, and oil extraction, including an overview on Maps 1 and 2.

The States Parties, in the recent Governmental Council Declaration, the Wilhelmshaven Declaration (WD 2023, Annex 2):

“§ 28. Reconfirm the existing trilateral agreement that prohibits the construction of wind turbines, oil and gas exploration, and exploitation and construction of new installations for oil and gas within the boundaries of the Wadden Sea World Heritage Site;”

The Nomination Dossier 2008 contains information on gas and oil fields below the property and how they are explored and exploited. With Supplementary Information February 2009, Appendix 5 Integrity, the States Parties confirmed their commitment not to explore and extract oil and gas at locations within the revised boundaries of the nominated property in line with law in force. Therefore, exploration and exploitation are only permitted from sites outside the property.

Comment by Nature NGOs: However, a few sites which would naturally belong to the property and where extractive mining takes place or were expected to take place were not part of the World Heritage nomination and became exclaves, surrounded by the World Heritage. In our view, even if the exploration-equipment is placed outside the legal boundaries of the property, the impacts of mining underneath the property remain a cause for concern. It should have been formulated as an aim in this report to add the exclaves to the World Heritage by phasing out the mining activities or put an end to the respective planning there as soon as possible.

Project permits need to be regarded following strict regulations and in accordance with binding international and national mining and nature conservation legislation. Legislation in all three countries protects the Wadden Sea ecosystem and safeguards its OUV and integrity by generally prohibiting negative effects.

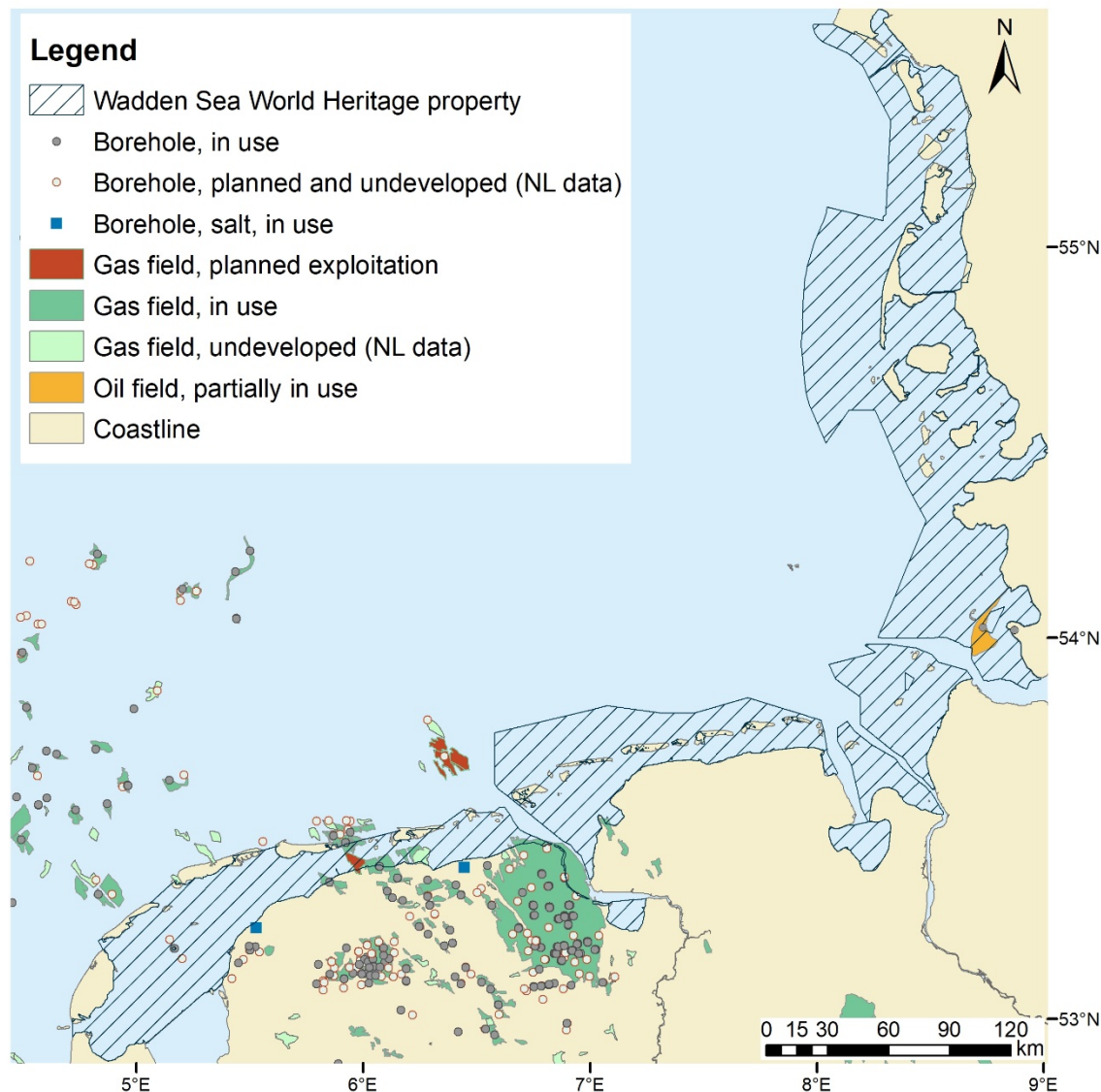
Comment by Nature NGOs: The report should admit that some serious negative impacts cannot be avoided if mining occurs, which is among the reasons to phase out mining activities in or close to the property as soon as possible.

Overview of existing and planned extractive activities on the map

13. *Further notes* the multiple existing and/or proposed extraction and infrastructure developments within and around the property, and *further requests* the three States Parties to:

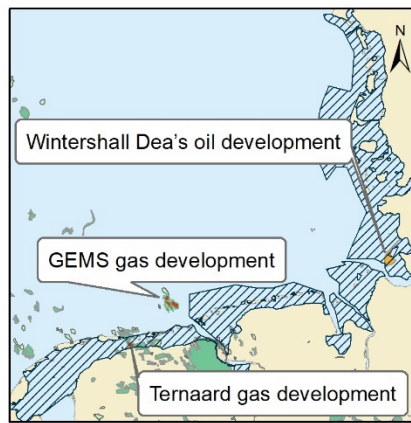
a) *Provide to the World Heritage Centre and IUCN an overview of all existing and planned extractive activities within and around the property, with appropriate maps,*

Map 1 provides an overview of existing and planned gas, oil, and salt mining activities below and around the property with the respective bore holes. In line with the trilateral agreement prohibiting the construction of installations for oil and gas in the World Heritage property



(Nom. Dossier 2008, Wilhelmshaven Declaration 2023), exploration and exploitation is only permitted from sites outside the property. Boreholes in use (see Map 1) are situated outside or in exclaves excluded from the World Heritage property.

Map 1. Operative and planned gas, oil, and salt extraction. Gas fields planned for exploitation are under permitting process; gas fields in use are currently under extraction (for Lower Saxony, fields delimitation is according to geological demarcation; for the Lower Saxon Wadden Sea area, currently there are no permits issued under German law (§§ 7, 8 BBergG) that allow the exploration or extraction of mineral resources); gas fields undeveloped are shown in the Netherlands and Lower Saxony (production license granted) since these might start the process of obtaining drilling permits; oil field partially in use shows the reservoir that is in parts under extraction; salt boreholes in use currently under extraction. The exact coordinates of the salt fields where production takes place were not available for this report, but from the location Harlingen they are below the Wadden Sea. Borehole symbols on the map do not indicate their surface extent. Data sources: NIBIS® MAPSERVER Landesamt für Bergbau, Energie und Geologie



(<https://nibis.lbeg.de/cardomap3/?lang=en>),
 NLOG Dutch Oil and Gas portal
 (<https://www.nlog.nl/en/welcome-nlog>), LKN-SH,
 ONE-Dyas B.V., and CWSS (map servers include
 further information).

Map 2. Labels indicating the location of the specific extractive activities with WHC requests.

2.2.1 Gas (Decision paras. 5, 6, and 8)

5. Also welcomes the confirmation by the State Party of the Netherlands that no new gas extraction permits will be issued in the Wadden Sea, but notes with serious concern the approval of a new salt extraction project and the ongoing consideration of a proposed gas development at Ternaard, in the vicinity of the property, which would extend extractive activities below the property;

6. Notes with further concern that, in the Environmental Impact Assessment (EIA) process, the State Party of the Netherlands has not undertaken a comprehensive assessment of the potential impacts of the proposed Ternaard gas extraction project on the OUV of the property when, based on information available, it would appear that the project has direct negative impacts on the OUV of the property, and therefore urges the State Party not to approve the project;

8. Also notes with serious concern the Wintershall Dea's oil development, which is currently being considered by the State Party of Germany, and appears to be located inside the property, as well as the GEMS gas development located close to the boundary of the property;

In accordance with the agreements under the World Heritage Convention, the States Parties are making every effort to protect and preserve the OUV of the UNESCO Wadden Sea World Heritage Site. This means that activities in the Wadden Sea and below the seabed may only take place if there is reasonable assurance that no significant damage will occur to the unique and vulnerable natural environment.

Comment by Nature NGOs: If this would be the case, then no gas, oil or salt would be allowed to extract in the Wadden Sea. Therefore, the statement is misleading. Instead it should be stated, that there is severe and also irreversible damage by gas extraction, and that for this reason the extraction activities needs to be stopped or the planning will not be continued.

New permits for gas and salt extraction under the Wadden Sea

The government of the Netherlands no longer wants to issue new permits for gas and salt extraction under the Wadden Sea and has drafted a legislative proposal to deny new permits. The proposal went through public consultation (from 14 July to 25 August 2023). An updated legislative proposal will be presented to parliament in 2024.

Update on procedure for the gas extraction permit in Ternaard

The Dutch Government announced on 10 January 2022, in the “Coalition Agreement” and a letter to the parliament⁴, that the procedure for the gas extraction permit in Ternaard will be completed by applying the relevant mining and nature legislation. The WHC will be informed as soon as a final decision on the proposed Ternaard gas extraction project is taken. This communication will include an in-depth response to the concerns expressed in the Decision’s para. 6 and the IUCN evaluation. It is to be noted that local governments and the Wadden Sea Area Stakeholder platform oppose the gas exploration from Ternaard. In a recent legal procedure, it was ruled that a final decision on Ternaard has to be taken before 1 April 2024. See location of Ternaard on Map 2.

Comment by Nature NGOs: This is not satisfying, as the risk of damage to the Wadden Sea is in any case too high. The procedure for the gas extraction permit in Ternaard should be stopped.

The GEMS gas development

The GEMS (Gateway to the Ems) project encompasses gas fields in the Dutch and German parts of the North Sea, outside the World Heritage Site. The project aims mainly at developing field NO5-A, which is located over 20 kilometres off the World Heritage Site boundary (see location on Map 2). The North Sea is about twenty-five metres deep at this location, and the gas field itself lies about four kilometres deep in the subsurface⁵. Legal proceedings are pending in the Netherlands. Information was sent to WHC on 7 February 2023 in response to the letter Ref: CLT/WHC/EUR/22/13887. Additionally, the exact location on a map (with the respective ESRI shapefiles) was sent to the WHC in communication ref. L23-77 on 10 August 2023.

Comment by Nature NGOs: Dutch approval for the project has already been granted. Nature NGOs are currently taking legal action against this, arguing that the construction site of the platform is worthy of protection under the EU Habitats Directive. In April 2023, the District Court of The Hague granted an application for a temporary injunction to stop construction immediately, which is why the project could not proceed any further. The risk of serious damage due to nitrogen emissions is too high and the reef at the location of the

⁴ Kamerbrief Contourennota aanpassing Mijnbouwwet of 20 January 2023 (Tweede Kamer 32849 nr. 214)

⁵ <https://www.gemsnorthsea.co.uk/gems-project/>

drilling platform will be irreversibly destroyed if the platform is built. The court confirmed this decision again in September 2023. A ruling in the main proceedings is expected in February 2024. The approval process on the German side has not yet been completed, but numerous Nature NGOs have also filed objections to the project here. The greatest risk factors here are discharges of wastewater into the sea and the transfer of toxic chemicals into the World Heritage Site, the disturbance of the sensitive habitat due to massive construction noise and the possibly high environmental damage in case of an accident on the platform. The Lower Saxony's Minister for the Environment has expressed serious doubts about the compatibility of the drilling project with the World Heritage site. However, the political level has not intervened, leaving the decision to the mining authority.

Box 1

Evaluation of the ‘hand on tap’ system (Decision para. 3 and 7)

The ‘hand on tap’ is an approach used in the Netherlands to monitor salt as well as gas extraction. The entire ‘hand on tap’ consists of an abiotic and a biotic component. The abiotic component is based on models that consider natural sedimentation, subsidence, and climate change projections on sea level rise. Subsidence and sea level rise (both cause a deepening of the Wadden Sea) have to be balanced by a minimum natural sedimentation rate. This ensures that no effects will occur in the Wadden Sea. Additionally, the biotic component considers the entire ecosystem and consists of monitoring activities to ensure that the natural values of the Wadden Sea are not affected. If an effect on the ecosystem is detected which is due to the mining, the activities will be adjusted or halted. The estimations used in the models are updated periodically as soon as new data is available and conservative estimates are used. Thus, the latest scientific climate change knowledge is included in the decision for granting permits for mining activities which take place deep in the subsurface, and a precautionary approach is used.

Additionally, in 2020/2021 a reassessment took place of the effectiveness of the ‘hand on tap’ as a policy instrument. The following text provides an overview on the main uncertainties and how they are addressed by periodical updates, as well as the overarching outcome of the evaluation of the ‘hand on tap’ as a policy instrument.

Natural sedimentation uncertainties

Natural sedimentation cannot be measured accurately due to the natural dynamic interactions between wind, water, and sand that characterise the Wadden Sea (outstanding geological processes, criterion viii). The natural degree of sediment accumulation, known as “growth capacity”, is measured over time, but a detailed forecast is almost impossible. Therefore, conservative estimates are used in the ‘hand on tap’ as a precautionary measure.

In 2021, the Ministry of Economic Affairs and Climate Policy asked Deltares (an independent knowledge institute) to evaluate natural sedimentation rates in the tidal basins of the Dutch Wadden Sea, taking into account the imbalance caused by the Afsluitdijk dyke built in 1933. Deltares improved

the prediction models ASMITA and Delft3D for natural sedimentation rates, as well as for morphological changes within the tidal basins due to relative sea level rise and subsidence due to gas and salt production. The final report is expected in 2024, including a note on the subsidence capacity for the tidal basin of Vlie where salt extraction is taking place and concerns were expressed regarding potential insufficient sedimentation to compensate for sea level rise in the long term.

Sea level rise rates uncertainties

For the ‘hand on tap’ system, the Ministry of Economic Affairs and Climate Policy makes a forecast on expected sea level rise every five years, based on scientific advice. Since different methods exist for calculating the average rise per year from measured water levels, different estimates have been calculated for the Dutch Wadden Sea.

With the publication of the IPCC AR6 report and the Climate Signal Report from the Dutch Meteorological Institute ‘KNMI klimaatsignaal’ in 2021⁶, the Ministry of Economic Affairs and Climate Policy requested a group of experts (KNMI, TNO, Deltares, University of Utrecht) to update the last scenario calculated in 2020. The new calculation was within the range of the sea level rise of 2.4 ± 1.5 mm/year considered in 2020 and, hence, at that time a new scenario was not necessary.

New estimations of sea level rise were provided by KNMI in 2022⁷ considering the latest data and a wind correction arrived at 3.3 mm per year until 2026. In 2023, the results from the last quadrennial report of the Dutch Sea Level Monitor ‘Zeespiegelmonitor’⁸ concluded that the average annual rise over the last 30 years was of 2.9 ± 0.4 mm/year (which is higher than the 2020 estimation but within the standard deviation). On further request from the Ministry for advice on which estimate to use, the State Supervision of Mines recommended applying the estimate of 3.3 mm per year as a policy scenario until 2026. After 2026, sea levels are expected to rise at an increasing rate, influenced by greenhouse gas emissions and climate development. Therefore, for the years following 2026, a guideline scenario is suggested based on expectations for global greenhouse gas emissions, ranging between 4.8 and 7.6 mm per year. Choosing RCP2-4.5 would result in a 6.4 mm/year scenario.

With a current sea level rise of 3.3 mm/year, no production reductions would be necessary for gas or salt production within the ‘hand on tap’. The current subsidence rates within the ‘hand on tap’ for the tidal basins of Pinkegat, Zoutkamperlaag, Vlie, and Marsdiep, are 1.43, 0.73, 0.34, and 0.03 mm/year respectively; these are well within the bounds of the “acceptable subsidence”⁹ limit of 6, 5.5, and 5 mm/year respectively.

Ground subsidence

Subsidence is measured periodically in some places and continuously in other (e.g., Harlingen salt mining area). It is to be noted that subsidence happens over time, not all at once; therefore, companies are required to report field measurements annually based on a measurement plan. Royal Netherlands Institute for Sea Research (NIOZ, in their 2023 publication on the changes on the quality

⁶ <https://www.knmi.nl/kennis-en-datacentrum/achtergrond/knmi-klimaatsignaal-21>

⁷ <https://egusphere.copernicus.org/preprints/2022/egusphere-2022-935/egusphere-2022-935.pdf>

⁸ <https://www.deltares.nl/expertise/onze-expertises/zeespiegelstijging/zeespiegelmonitor>

⁹ Acceptable subsidence: As long as measurements and forecasts, combined with the expected sea level rise, remain below the established growth capacity, harmful effects are virtually excluded.

of tidal mudflats due to gas extraction¹⁰) suggests that long-term research is needed, including measurements before any extraction takes place, to obtain more accurate data on subsidence considering variables such as soil composition and soil life.

Reassessment of the effectiveness of ‘hand on tap’ as a policy instrument

The reassessment was requested by the Dutch parliament to the Ministry of Economic Affairs and Climate Policy. An independent advisory board (Advisory Board, also known as Independent Scientific Advisory Board - ISAB) composed of the Technical University Delft, the University of Utrecht, Deltares, NIOZ, and the Dutch Geological Survey (TNO) was specifically installed for this reassessment. The Advisory Board further sought input from, among others, the Dutch UNESCO Commission, the State Supervision of the Mines, and the Royal Netherlands Meteorological Institute.

The Advisory Board concluded on 8 January 2021 (letter to parliament on 28 June 2021¹¹) that the ‘hand on tap’ system has been sufficient to date to protect the Wadden Sea World Heritage Site. They add:

“Looking ahead, however, a better analysis of longer-term uncertainties is desirable, especially where expected sea level rise and natural sedimentation are concerned. The uncertainties in subsidence due to mineral extraction are, in the opinion of the Advisory Board, already sufficiently taken into account. The Advisory Board believes that the current interpretation is sufficient until a new version of the ‘hand on tap’ principle can be formulated. This means that the current interpretation is sufficient for the time being and that the Advisory Board is of the opinion that the Wadden Sea is adequately protected at the moment as regards the currently permitted gas and salt extraction.

At the same time, the Advisory Board points to uncertainties that lead to the conclusion that some effects of economic co-use in the Wadden Sea can never be completely ruled out, whereby, moreover, there could possibly be cumulation. For the broad nature quality of the Wadden Sea, this touches on a complex issue concerning the carrying capacity of nature in the Wadden Sea. The minister of LNV therefore wants to pay more explicit attention to uncertainties and the application of the precautionary principle when assessing the substantiation of permit applications. This from the point of view of safeguarding the natural quality of UNESCO World Heritage Wadden Sea.”

Among the recommendations provided by the Advisory Board in the evaluation of the ‘hand on tap’ system are, in addition to the five-yearly update of the relative sea level rise scenarios, to conduct yearly evaluations of sea level rise and to improve the integration of uncertainties regarding sea level rise and natural sedimentation. The Advisory Board further recommends investigating how an improved ‘hand on tap’ methodology can be developed and applied, considering the long-term uncertainties.

Furthermore, the ‘hand on tap’ monitoring results are assessed by independent audit commissions operating under the Dutch Commission for the Environmental Impact Assessments. The Audit Committees gas and salt extraction give advice to the Ministry of Economic Affairs and Climate Policy

¹⁰ <https://www.nioz.nl/en/news/quality-of-tidal-mudflats-changes-in-gas-extraction-area-of-wadden-sea>

¹¹ https://www.tweedekamer.nl/kamerstukken/brieven_regering/detail?id=2021Z12034&did=2021D26021

and the Ministry of LNV for adequate monitoring of all relevant parameters and inclusion of latest developments, and thus testing whether mineral extraction has remained within the scope of use. Monitoring plans include effects on the sandbanks, the dry flat area, but also on soil life, and birds that depend on it for rest and food. Additionally, State Supervision of Mines monitors the extraction and the measurement plans of the mining operators. The Audit Committees recently concluded regarding gas extraction activities¹² and the salt extraction¹³ that monitoring results are of good quality and they support the conclusions from the operators that no negative effect on nature takes place. The Audit Committees do recommend giving more attention to the speed of sea level rise.

Therefore, in June 2023, the Ministry of Economic Affairs and Climate Policy published a letter to parliament indicating the need for a new sea level rise scenario for the ‘hand on tap’ system. The Ministry further asked the group of experts formed by KNMI, TU Delft, NIOZ, Deltares, TNO, and University of Utrecht to advise on the short term (next five years) and long term (up to the end of gas production) sea level rise for the Dutch part of the Wadden Sea as input for the ‘hand on tap’. This advice is expected at the beginning of 2024 and will likely lead to a change in the sea level rise scenario in the ‘hand on tap’ in early 2024.

Comment by Nature NGOs: The box “Evaluation of the ‘hand on tap’ system” is misleading, as it neglects that any subsidence of the sea floor in the Wadden Sea, whether it is caused by the extraction of gas or of salt, will increase the overall sediment deficit caused by the sea level rise. This is also the case if e.g. locally the subsidence would be compensated by sedimentation and this to be detected by a ‘hand on the tap’ system: the sediment will be lost from the ecosystem on a regional basis, i.e. it would be missing elsewhere in the Wadden Sea. In addition, “monitoring” is no guarantee that future damage may not occur and is no ‘precautionary measure’ as meant under the EU regulations and treaties.

¹² <https://www.commissiener.nl/adviezen/3731>

¹³ <https://www.commissiener.nl/adviezen/3746>

2.2.2 Salt (Decision paras. 5, 7, and 10)

5. Also welcomes the confirmation by the State Party of the Netherlands that no new gas extraction permits will be issued in the Wadden Sea, but notes with serious concern the approval of a new salt extraction project and the ongoing consideration of a proposed gas development at Ternaard, in the vicinity of the property, which would extend extractive activities below the property;

7. Requests the State Party of the Netherlands not to approve further extractive projects, in line with the precautionary principle, to assess whether adaptation of the ‘hand on tap’ monitoring mechanism is required to account for uncertainties linked to climate change, and to consider limiting or halting existing salt extraction activities, as required, to effectively maintain and protect the OUV;

10. Further notes with serious concern the scientific advice from the Independent Scientific Advisory Body (ISAB) established by the State Party of the Netherlands that, as a result of salt mining, there is a reasonable probability that future sediment accretion will be insufficient to offset sea level rise and that the potential for subsidence of the seabed will be prolonged once the mining operation is stopped, and also considers that subsidence of the seabed, especially in the light of projected sea level rise as a result of climate change, could reduce the extent of the tidal flats, which are one of the main attributes of the property’s OUV, and therefore directly result in a significant negative impact on the property’s OUV;

Salt extraction in the Netherlands, like gas extraction, is monitored using the ‘hand on tap’ approach. As presented in Box 1, the models are periodically updated with the latest prediction data and calibrated with field measurements.

Comment by Nature NGOs: Please see our comment on Box 1 above.

Various Dutch scientific studies provide further insight to improve models for long-term predictions of natural sedimentation rates¹⁴. As mentioned above (Box 1), in 2021, the Dutch Ministry of Economic Affairs and Climate Policy asked Deltares to evaluate natural sedimentation rates in the Dutch part of the Wadden Sea to improve the hydro-morphologic numerical models (ASMITA and Delft3D). This evaluation will provide specific information on the basin of Vlie, where the Advisory Board thought there is a chance that there will be insufficient sedimentation to compensate for sea level rise in the long term. The final report is expected in 2024.

Once a salt mining operation is stopped, potential for prolonged subsidence of the ocean floor depends on the technical manner of the abandonment of the mining operation. In 2019, a scientific study was carried out by leading European experts within the Dutch Knowledge Program for the Effects of Mining (KEM)¹⁵. It was concluded that abandonment of salt mining caverns at high pressure might induce a risk of hydraulic fracturing and therefore of leakage from the caverns. However, abandonment at low pressure or a prolonged period of

¹⁴ Chen (2021). A new approach to simulate the Ameland inlet’s response to sea level rise and subsidence; Bonenkamp (2023) Long-term morphological modelling of tidal inlet systems: implementing salt marshes in ASMITA. Le Zhang (2021) Modeling long-term morphological development of intertidal flats. Diepeveen (2022) small scale equilibria in tidal basins: a data-analysis and case study in the Ameland inlet.

¹⁵ www.KEMprogramma.nl

abandonment with temporary mining will lead to more subsidence compared to an abandonment at high pressure without hydraulic fracturing.

The operator must produce salt within an “acceptable subsidence” in the Dutch Wadden Sea; this is calculated based on measurements and forecasts of the growth capacity of the system and subsidence¹⁶. Since subsidence after abandonment depends on the method of abandonment and the technical details (volume of the cavern, pressure and temperature in the cavern, ‘hard’ shut-in, or ‘soft’ shut-in), the operator must take this into account during operation of the salt mine. The operator of salt mines in the Wadden Sea has carried out studies to minimize subsidence after abandonment under supervision of State Supervision of Mines. The report¹⁷ was delivered to State Supervision of Mines in 2021.

In 2024 a new request for a production plan for salt mining has been received by the Dutch Ministry. This is an update of the production plan of 2015, not a new permit, and encompasses the new strategy to minimize subsidence after abandonment.

Comment by Nature NGOs: As far as the preservation of OUV is concerned a State Party should only have one ‘acceptable subsidence’ which is ‘no subsidence’. The plain fact that a State Party accepts subsidence and agrees to importing sand from North Sea to ‘fill the holes’ appears to be contradictory to the legal duty to prevent damage to the protected natural values of Wadden Sea. The fact that based on the existing regime a new request from the operator is currently under consideration by the Dutch authorities is very worrying and contradicts the legal duty to share that information with local authorities and civil society.

2.2.3 Oil (Decision paras. 8 and 9)

8. *Also notes with serious concern the Wintershall Dea’s oil development, which is currently being considered by the State Party of Germany, and appears to be located inside the property, as well as the GEMS gas development located close to the boundary of the property;*

9. *Also urges the State Party of Germany not to proceed with any proposed oil exploration inside the property and to conduct a detailed EIA, including an assessment of potential impacts on the OUV of the property, for any oil or gas extraction project that may negatively impact the property, in accordance with the Guidance and Toolkit for Impact Assessments in a World Heritage Context;*

Wintershall Dea’s oil development

The framework for oil production in the Wadden Sea of Schleswig-Holstein is stated in the Nomination Dossier 2008 (p. 62-63) and in the Supplementary Information 2009 (Appendix 5). Oil production occurs at one location in the Wadden Sea of Schleswig-Holstein (See location on Map 2). Concessions were already issued in the 1950s. In the 1999 amendment of the National Park Act, the permit for oil production within the boundaries of the National

¹⁶ <https://www.sodm.nl/onderwerpen/winning-onder-de-waddenzee>

¹⁷ Havenmond Cavern Abandonment Risks, Analysis and evaluation of scenario-based risks

Park was restricted to the existing exploitation site Mittelplate A. The production license is limited to 2041.

Comment by Nature NGOs: The actual production began after the National Park was founded in 1985.

In Schleswig-Holstein, the production site for oil, together with areas in which the concessionaire intended to carry out exploration drillings, have been excluded from the nominated property (see Supplementary Information 2009, Appendix 5, Figure 1, and revised Figure 2.13 Rev.). The concessionaire applied for three exploration drillings in 2011 but recalled the applications in 2018. Considerations have shown that new exploration drillings outside the existing platform Mittelplate A are not permissible within the regulatory framework in place. No further applications for oil explorations inside the property are on hand. Therefore, Schleswig-Holstein intends to reduce the area of the existing exclaves to the platform Mittelplate A and its direct surroundings; see also Wilhelmshaven Declaration para. 2 “[...] prepare an application to UNESCO for minor boundary changes of the World Heritage Site, for instance to adjust to morphological changes and close existing exclaves within [the World Heritage Site] as far as possible.”

In October 2019, Wintershall Dea Deutschland GmbH applied for a new oil drilling field approximately 2,000 m below the Wadden Sea National Park. The requested field would border the south-western part of the existing production field and would be exploited via the existing platform Mittelplate A outside of the World Heritage Site (see Map 1). Regarding the application, Wintershall Dea was given a hearing on a draft rejection notice. Wintershall Dea’s response is currently being evaluated.

Comment by Nature NGOs: We consider the “*intention to reduce the area of the existing exclaves to the platform Mittelplate A and its direct surroundings*” as a first positive step to improve the situation. However, if the new oil drilling field were permitted, the total area of oil extraction beneath the World Heritage Site would increase and potentially also the remaining time of oil exploration on Mittelplate would be prolonged. Therefore, the Nature NGOs object the extension of the permission field.

As the impact of the oil production on Mittelplate is destructive both for nature (disturbances, risk of accidents, devaluing of large parts of the National Park) and for climate (if we take climate protection seriously there must be places in the world where fossil fuels remain in the ground; National Parks and World Heritage Sites are places where this obviously should be the case at first), the Nature NGOs call for a stop of the oil production in Mittelplate as soon as possible, but latest until 2030.

2.3 Submarine high-voltage power cables and pipelines (Decision para. 11)

11. *Further welcomes the decision by the State Party of the Netherlands to carry out additional studies on the proposed routing to connect the planned offshore wind power installation to the mainland, through impact assessments specifically focused on the property’s OUV and including an assessment of the impacts of the potential hydrogen production north of the Wadden Sea and the pipelines to be constructed for delivering the substance to the mainland, and also requests the State Party to submit these assessments to the World Heritage Centre for review by IUCN prior to a final decision on the project;*

North Sea wide expansion of offshore energy transmission grids and pipelines

The expansion of offshore energy transmission grids and pipelines is crucial for achieving the EU’s renewable energy targets and climate change mitigation goals. Therefore, plans and projects are increasing in number and density (including in the North Sea) and are to be further upscaled and accelerated to reach the ambitious targets. A key aspect is the proper planning, construction, operation, and maintenance of transmission lines between offshore transformer substations and onshore connection points.

Comment by Nature NGOs: Another key aspect is the mitigation of the impact. It is vital that over the many years of development to come one starts building in areas where the environmental impact is smallest and that knowledge and experience gained is quickly integrated to ensure the application of Best Available Techniques (BAT) and Best Environmental Practice (BEP). The number of cables, pipelines and other infrastructure associated with offshore energy development should be minimized and e.g. several cable systems bundled in corridors in order to minimize the overall negative impact on the seafloor and the OUV as a whole. Available alternative sites where the environmental impact is much lower (e.g. cables next to shipping lanes in estuaries) should be used and every effort made to reach solutions with those authorities managing shipping lane usage.

A general consideration on grid connections crossing the Wadden Sea is, that the magnitude of impact on the OUV by the many cables to come is so high, that mitigating and compensating their impact could not be sufficient to safeguard the OUV and the natural values of the Wadden Sea. Therefore, for a true compensation, which should be nature-positive, also all fossil fuel extraction in the Wadden Sea or close to it must be shut down earlier than currently planned. Furthermore, there needs to be an overall coordination both at the national and trilateral level regarding compensation measures – ensuring that the individual projects act in synergy and contribute to mitigating those factors of the cable construction and operation that are most critical to maintaining the OUV. The national UNESCO commissions also have a critical role to play by engaging in the necessary national and trilateral debate.

The Esbjerg Declaration¹⁸ (May 2022), signed by the Heads of State of the North Sea coastal states on the occasion of the North Sea Summit II, contains the political intention to develop

¹⁸ <https://windeurope.org/wp-content/uploads/files/policy/position-papers/the-esbjerg-declaration-north-sea-as-green-power-plant-of-europe.pdf>

the North Sea as a "Green Power Plant [...] while promoting balanced co-existence of renewable energy and a healthy marine ecosystem" as a principle, stated by the energy ministers of Denmark, Germany, the Netherlands, and Belgium¹⁹. In their Ostend Declaration²⁰ (April 2023), the energy ministers (including Denmark, Germany, and the Netherlands) reaffirmed in this context that "To this end, renewable energy should serve public interest and public safety while promoting balanced co-existence of renewable energy, biodiversity and environmental protection as well as to contribute to a healthy marine ecosystem."

Mitigation of **potential** significant impacts on the OUV

Comment by Nature NGOs: The term „potential“ is misleading, it should be deleted. It gives the false impression that there might be no significant impact. However, given the magnitude of the cable planning there can be no serious doubt that the impact is already large, and will be much larger in the future.

For example, In Lower Saxony to date about 5.9 GW are transported onshore with the cables that have been built already. For the majority of more than 20 envisaged cable connections to come, there are currently no spatial planning regulations or concrete plans as to which gate and which section of coast the cable systems can be landed on. This is one reason why there is a need to move away from unrealistic high expansion targets for offshore energy production in the EEZ. The cable connections should be limited to a level that is compatible with this highly sensitive habitat and the OUV.

Against this political background, the Wilhelmshaven Declaration (WD 2023, Annex 2) states in the preface that "*Future offshore grid connections and pipelines that need to cross the Wadden Sea will be addressed in a way that their **potential impact** on the site's Outstanding Universal Value will be mitigated [...]*" and

Comment by Nature NGOs: The term „potential impact“ was used in the Wilhelmshaven Declaration with respect to cables and pipelines, but is misleading. It gives the false impression that there might be no serious impact. However, given the magnitude of the cable planning in the German Wadden Sea and particularly in the Wadden Sea of Lower Saxony, there can be no doubt that the impact is already large, and will be much larger in the future. That means, it is very important to mitigate the impact at least as much as possible, e.g. by routing (avoiding the most sensitive areas), tunneling, bundling, cable-size (larger cables help to reduce their number), or burying depth.

Concerning the burying depth, careful site selection with a thorough assessment of hydrology is critical, to avoid that cables are washed out and need to be reburied, which causes unnecessary additional disturbance. The use of scour protection for cables and infrastructure

¹⁹ <https://windeurope.org/wp-content/uploads/files/policy/position-papers/20220518-Declaration-of-energy-ministers.pdf>

²⁰ <https://www.bmwk.de/Redaktion/DE/Downloads/Energie/ostend-declaration-energy-ministers-north-seas-europes-green-power-plant.html>

must be avoided. If this is not possible at certain sites it needs to be carefully assessed applying BAT and BEP.

“§ 25. **Request** the Wadden Sea Board to facilitate exchange and collaboration with the energy sector, competent authorities, including also relevant stakeholders, regarding high voltage power grid connections from offshore wind farms with the intention to avoid, mitigate, and compensate for negative impacts on the Wadden Sea World Heritage Site, with the intention to develop a coordinated spatial strategy beyond 2030, striving to support the long-term expansion targets for offshore wind energy, making it more nature-friendly in line with conservation objectives;

“§ 26. **Urge** the Wadden Sea Board to explore the multi usage of space and how different interests, such as ecological, shipping, energy and economic interests can be combined and specifically to explore, in collaboration with the shipping authorities, the double usage of fairways for both shipping as well as for cables and pipelines with the purpose of mitigating negative ecological impact on some of the most vulnerable and unique elements of the World Heritage Site between islands and shore;”

The agreement presented in the Wadden Sea Plan 2010 is “To concentrate cable crossings through the Wadden Sea within a minimum of cable corridors and a minimum of cables, using the best available techniques, e.g., cables with highest capacity available, and avoiding salt marshes crossing as far as possible, and to communicate regularly on this item in order to use synergies.” This agreed procedure is picked up in The SIMP (2023, Annex 2; 5.4 Key Topic Energy) by promoting trilateral exchange, among others on “[...] optimisation of sensitive routing; laying techniques; cable design; maintenance; size of cables with a view to reducing their number; research on cumulative effects; application of Environmental Impact Assessment (EIA) and Strategic Impact Assessment (SEA) law; and avoidance and mitigation of impacts of new subsea cables and pipelines. This exchange could lead to the development of a common mitigation toolbox and enhanced transboundary coordination of integrated grids and interconnectors, further developing §29 from the Leeuwarden Declaration 2018²¹” and §25 WD.

A second relevant aspect of energy transition are plans for inter-regional grid (interconnectors) and hydrogen pipelines, which are intended to increase European energy security. New plans for interconnector cables for the extra-high voltage grid and gas pipelines for the transport of hydrogen are currently at the political planning stage. These cables and pipelines are to connect other North Sea countries with the Wadden Sea countries. Some of these may also cross the Wadden Sea area. The PAWOZ Eemshaven Programme is also investigating possibilities for transferring hydrogen via pipelines. However, specific planning procedures have not yet been initiated.

The trilateral *ad hoc* Working Group Renewable Energy is working on initiatives to support a nature-friendly energy transition, including generating and collating relevant information on the environmental impact of grid connections implementation, operation, maintenance, and

²¹ https://www.waddensea-worldheritage.org/sites/default/files/2018_leeuwarden_declaration.pdf

on mitigating the potential impacts as much as possible (see Table 2. Energy).

Comment by Nature NGOs: The installation of this group is necessary and appreciated. We strongly believe that the most sensitive habitats and critical sites should be spared from dissection through cables and other infrastructure. Alternative sites with less impact should be used. There are also indirect impacts caused by offshore wind development within the Wadden Sea such as an increase in ship traffic, an increased risk of ship accidents, or an enlargement of ports, which also needs to be mitigated.

Grid development planning in Denmark

At present, one major electricity cable (the COBRACable link) crosses through the Danish part of the Wadden Sea from Endrup in Denmark to Eemshaven in the Netherlands: <https://www.tennet.eu/projects/cobracable>. WHC was informed by the Parties about the COBRACable in the 2016 SOC report.



In early project stages, the landing site of the Viking Link between Denmark and the United Kingdom was envisioned to pass through the Wadden Sea. However, the site has been moved north and is now well clear of the Wadden Sea (see map, left).

No further plans for cables crossing the Danish Wadden Sea exist.

Grid development planning in Germany

As mentioned in the 2016 SOC report, grid connection projects are also being planned in Germany. The implementation of energy transition has significantly increased in speed and scope due to new political expansion targets for offshore wind energy in the German Exclusive Economic Zone (outside of the World Heritage Site) and will continue to increase in the future. This has an immediate effect on the associated planning for grid connection to the mainland, most of which will cross the World Heritage property.

The planning instruments for grid infrastructure in the German Exclusive Economic Zone seawards of the World Heritage Site is the Site Development Plan²² (SDP) by the Federal Maritime and Hydrographic Agency. A central element of the SDP itself is a strategic environmental assessment (SEA). The German Grid Development Plan (drafted by the transmission system operators and which needs confirmation by the competent federal authority) contains routes for HVDC systems connecting offshore wind farms with the mainland insofar as the grid connection points are defined. Both plans are currently being

²²https://www.bsh.de/EN/TOPICS/Offshore/Sectoral_planning/Site_development_plan/site_development_plan_node.html, <https://www.netzentwicklungsplan.de/>

revised in order to adapt them to the new, higher EU and national expansion targets for offshore wind energy. For the coastal waters (12 NM zone), and thus also the property itself, spatial planning competence lies with the German federal states. Therefore, a corresponding connection planning for route corridors in Lower Saxon territorial waters is currently being drawn up as part of the amendment to the Lower Saxon state spatial planning programme, which is also subject to strategic environmental impact assessment. The newly planned corridors for high voltage submarine cables may run through the property. In the Schleswig-Holstein part of the Wadden Sea, additional offshore high voltage power cables up to a restricted number of grid systems are supposed to pass the World Heritage property bundled via the existing cable corridor only, according to the Spatial Development Plan 2021 of Schleswig-Holstein.

High voltage submarine cable projects have been so far confined to a restricted number of corridors that were identified as being the ones with the least impact on the environment. These corridors will have reached their maximum spatial capacity in the foreseeable future. Additional corridor routings are being developed at present. Appropriate assessments, in accordance with the EU Habitats Directive, are being carried out in the permission procedure. Due to mitigation measures, certain time frames and the best available cable laying techniques and horizontal directional drilling are applied. Although impact assessments for cable corridors include the best possible implementation of avoidance and minimisation measures, the negative impacts on the Wadden Sea ecosystem are likely to cumulate considerably in the planning period up to 2030 and beyond, depending on location, number, voltage, length, and construction time of the cable projects. The environmental compatibility of the additional cable systems defined in the draft grid development plan still has to be demonstrated in the course of planning and authorisation procedures. Furthermore, the aspect of removal or replacement of cable systems will have to be addressed in the planning period beyond 2030, also while considering repowering of offshore wind farms in the EEZ.

Comment by Nature NGOs: See also the comments above. The impact by the large number of cables in the German part of the Wadden Sea will be very high, requiring not only avoidance and minimisation measures, but also real compensation. It should be at least tried to apply nature-positive compensation whereby the positive impact on the environment exceeds the negative impacts – such an approach would be particularly appropriate in an UNESCO World Heritage Site. The compensation measures could also be combined with Germany’s nature restoration targets (e.g. Action Plan on Nature-based Solutions for Climate and Biodiversity) and climate change adaptation measures.

It appears likely that existing cables connecting offshore wind farms need to be replaced when wind farms reach the end of their lifetime or later. Given that at the current level of planning Germany will enter a phase of continuous parallel construction and repowering from about 2030 onwards, it is vital to make use of more advanced technical solutions as soon as these become available that would avoid such continuous cable replacement and resultant almost continuous environmental disturbance.

The Dutch PAWOZ Eemshaven Programme

The Offshore Wind Connection Programme (PAWOZ) - Eemshaven investigates the most feasible and preferable routes for cables and pipelines from wind farms in the North Sea to the Eemshaven area. Each of the possible routes will have to cross the Wadden Sea World Heritage Site. The Ministry of Economic Affairs and Climate Policy is currently undertaking a strategic environmental assessment (SEA) to support the programme’s decision-making.

The Dutch Government informed the WHC about this process in letters dated 20 January 2022, 18 May 2022, and 13 April 2023:

In the letter of 18 May 2022, the publication of the draft scoping document for this SEA (directly translated from Dutch: the “memorandum on the scope and level of detail” or NRD) was announced. This publication signalled the start of formal public participation in the scoping phase of the SEA. The letter from 13 April 2023 informed the WHC that the scoping phase had been completed, the input received had been addressed, and that the memorandum on the scope and level of detail of the SEA had been finalised and approved by the minister²³.

The memorandum on scope and level of detail contains a description of how the OUV of the Wadden Sea will be assessed in the SEA for the PAWOZ Eemshaven Programme (p. 66). In summary, the effects on OUV will be derived from the effects on nature, morphology, and landscape. These will be described in a separate note, as an appendix of the SEA. UNESCO’s Guidance and Toolkit for Impact Assessments will be used in the assessment. The Guidance for Wind Energy Projects in a World Heritage Context will be considered as well.

Due to the urgent need for mitigating and reducing CO₂ emissions, the integration of wind production in the North Sea with the Dutch energy grid needs to be taken up with the highest priority while safeguarding the OUV. The Dutch Government welcomes the input to the PAWOZ Eemshaven Programme’s SEA process by means of a IUCN technical review. The WHC will be notified when the draft SEA is published (expected in the second half of 2024). Continuing the PAWOZ Eemshaven Programme as planned is a key priority for the Dutch Government.

Formal adoption of the PAWOZ Programme is expected before the end of 2024. After this, assuming suitable routes have been identified, the Ministry will direct the relevant Transmission System Operator (TSO) to commence project development. During the project’s development, each route will be further detailed and permit applications submitted. A more detailed project-level EIA is also expected to be conducted and will be shared with the WHC. This procedure is expected to take approximately two years before the installation of cables and/or pipelines can start.

Please note that planning of the production of hydrogen in the North Sea is not included in

²³ <https://www.rvo.nl/onderwerpen/bureau-energieprojecten/lopende-projecten/pawoz#notitie-reikwijdte-en-detailniveau>

the PAWOZ Eemshaven Programme as this Programme is limited to the Dutch pipeline and cable connections. The impacts of hydrogen production will therefore not be addressed in the SEA for the PAWOZ Eemshaven Programme. Also note that although hydrogen production is expected to take place in the North Sea it will not be in the proximity of the Wadden Sea.

Comment by Nature NGOs: See also the comments above. A general consideration on grid connections though the Wadden Sea should be, that the magnitude of impact on the OUV by the many cables to come is so high, that mitigating their impact as much as possible is urgently needed, but not sufficient to safeguard the OUV and the natural values of the Wadden Sea. Therefore, for a real compensation, which should be nature-positive, also all fossil fuel extraction in the Wadden Sea or close to it must be shut down earlier than currently planned. Furthermore, there needs to be an overall coordination both at the national and trilateral level regarding compensation measures – ensuring that the individual projects act in synergy and contribute to mitigating those factors of the cable construction and operation that are most critical to maintaining the OUV.

2.4 Wind energy projects in the vicinity of the property (Decision para. 12)

12. Notes the numerous existing and proposed wind energy projects in the vicinity of the property and encourages the States Parties to use the online Guidance for Wind Energy Projects in a World Heritage Context when planning and assessing their impacts and taking proactive measures for the protection and preservation of the property’s OUV;

The new UNESCO guidance is considered a helpful tool to assist competent authorities engaged in the planning and approval of wind energy projects and key actors involved in the protection of the Wadden Sea World Heritage Site, to be applied in the context of EU and national environmental law. Although it also addresses cultural sites and also focuses on other World Heritage OUV criteria, it is recommended that competent authorities integrate it into the mandatory impact assessment procedures, to support decision-making and make the respective outcome a recognisable part of the justification for the plan or approval decision. The guidance contains the Wadden Sea as a case study for a policy framework for controlled wind energy development near a transboundary World Heritage property (Denmark, Germany, the Netherlands).

As stated in the 2016 SOC report, the construction of new wind turbines is not allowed within the property (Wadden Sea Plan 2010, WD 2023). In the course of the increased and accelerated expansion of offshore wind energy in the North Sea EEZ to become the “Green Power Plant”, the construction and structural maintenance of wind farms will also lead to an increase in marginal or crossing shipping and air traffic in the World Heritage Site and thus to indirect impacts on its protected assets.

Relevant regional information is presented below.

Wind energy projects in Lower Saxony

Since the last 2016 SOC report, no new offshore wind energy projects have been planned or implemented in the direct vicinity of the property in the coastal waters of Lower Saxony.

Comment by Nature NGOs: In the adjacent Exclusive Economic Zone (EEZ), however, there is a strong growth in offshore wind farms, including a drastic increase in associated vessel traffic, often at high speed. Given the large distances, and resultant high levels of underwater noise this is already leading to increased disturbance to seabirds, harbour porpoises and other species/habitats, with impacts well into the property. The research on seabirds has shown that there is a growing suite of birds such as murres and divers that are affected by major habitat loss across the German North Sea as a result of sensitivity to offshore wind. There are also serious concerns regarding impacts on migratory bats, reemphasizing the importance of applying the precautionary principle.

There are two windfarms in the territorial sea of Lower Saxony that were once permitted to

allow for the technical development. They are very close to the Wadden Sea with impacts on it, and should not be repowered when the end of their lifetime is reached.

Within the inland coastal strip of approximately 5 km there is a chain of Special Protection Areas (SPA; EU Birds Directive), which act as an exclusion area for wind turbines. Thus, they have a significant lowering effect on the spatial development pressure by wind farm projects in the vicinity of the Wadden Sea World Heritage Site. In the neighbouring hinterland, expansion has initially been slowed down in recent years. In the coming years, replacement of smaller and technically outdated wind turbines can be expected (so-called repowering). As part of the acceleration policy for energy transition, legal regulations were recently adopted to speed up approval processes for repowering. However, specific legal regulations for species protection have to be considered.

Although the Lower Saxony National Park Act does not regulate any specific protection outside the National Park, it does contain the special protection purpose for the Natura 2000 site, which has to be considered in impact assessments: “Suitable habitats of sufficient size for all life cycle phases such as reproduction, moulting, migration, resting, wintering and foraging, as well as the possibility of unhindered migration and movement between sub-habitats, also in the surroundings of the National Park.”

Wind energy projects in Schleswig-Holstein

Similar to Lower Saxony, no offshore wind energy projects have been planned or implemented in the vicinity of the property in the coastal waters of Schleswig-Holstein since 2016. Most of Schleswig-Holstein’s coastal waters is designated as Natura 2000 sites and is subject to the corresponding protection. Schleswig-Holstein’s spatial planning does not permit the construction and operation of wind turbines in Natura 2000 sites. Furthermore, buffer zones in relation to nature reserves, national parks, and protected areas designated under the EU Habitats and Birds Directives are specified. In the process of identifying areas suitable for wind energy turbines, the relevant impact assessments have been carried out regarding Natura 2000 and species protection.

Comment by Nature NGOs: In the Exclusive Economic Zone (EEZ) west of Schleswig-Holstein offshore wind farms have already been developed and the projected expansion is considerable, including the above-mentioned disturbance through vessel traffic. A long-standing court case in Germany against the Butendiek offshore wind farm has confirmed a negative ecological impact, notably on divers, and therefore this offshore wind farm is not going to be repowered and has not been included in Germany’s current Maritime Spatial Plan (MSP) from 2021. To date this offshore wind farm is still running, but in the future offshore wind developments must be avoided in areas of high ecological conflicts, applying the available BAT and BEP (e.g. see NABU study at <https://www.nabu.de/natur-und-landschaft/meere/offshore-windparks/33162.html>).

Within the boundaries of the German National Parks (which are almost completely

congruent with the boundaries of the World Heritage Site), the National Park Acts prohibit the construction or operation of wind turbines.

Wind energy projects in the Netherlands

In the Netherlands, wind farms are mainly located in the North Sea as offshore installations. On land there are windmills in the proximity of the Wadden Sea. For example: Windpark Fryslan in the IJsselmeer. In Nij Hiddum Houw, windmills have been built and plans are well advanced to build further installations in the Eemshaven. Further wind farms are already installed or planned on the mainland. The construction of wind farms is assessed with a project specific Environmental Impact Assessment (EU Directive) and there is increasing attention on the ecological effects. If Natura 2000 sites in the vicinity may be affected, an additional assessment of the impact on the ecological features is conducted (Appropriate Assessment). However, in these assessments, the impacts on OUV criteria are not mentioned explicitly but do cover certain valuable aspects in this respect.

Therefore, assessments developed under EU law show significant overlap with an OUV assessment, although impacts on OUV criteria are not mentioned explicitly.

Wind energy projects in Denmark

The WHC informed the Danish Government about third party concerns regarding the possible development of a new wind turbine test centre in the vicinity of the property. In accordance with para 174 of the Operational Guidelines, the WHC requested information (15 June 2023, letter ref. CLT/WHC/EUR/23/14361). The Danish Agency for Planning and Rural Development informed WHC (23 August 2023) about the designated areas for screening. In the same communication, the WHC was informed that after a first screening no decision regarding the location was possible. The second screening reached the conclusion (as of 1 February 2024) of omitting further investigation in the area relevant to the Danish Wadden Sea World Heritage Site, and to continue investigations at another location in Denmark.

Comment by Nature NGOs: We strongly object the plan for an industrial test centre for wind energy with turbines of 450 m height close to the property near Ballum Enge. This would not have been compatible with the OUV. However, meanwhile there is information that it was decided in Denmark to stop the plan. This was in response to the need to safeguard the Wadden Sea World Heritage and to stakeholder opposition. While Denmark should never have put forward such a plan in the first place, this is the kind of commitment towards the implementation of the World Heritage Convention we wish to see across the region.

An update of the Danish Maritime Spatial Plan issued in 2023 includes an extended N2000 area, connecting the N2000 Wadden Sea Area with the N2000 North Sea Area. In the new

“connecting” Natura 2000 area there is an area originally reserved for wind turbines. This was pointed out by the Danish NGOs during the SOC stakeholder consultation process. In this connection the responsible Danish authority (The Danish Energy Agency) stated:

“In August 2023, the existing bird protection area (SPA) no. 113 was expanded to cover a part of the East German Bight and an area around Horns Reef that was not previously covered by the SPA. The Danish Maritime Spatial Plan (Havplanen), where an updated version is currently undergoing a public consultation procedure, has a designation for an area for offshore renewable energy within the SPA. The Danish Energy Agency can inform that the area was designated as potentially suitable for offshore wind as part of an initial screening back in 2019 and even though the area is designated in the Maritime Spatial Plan there are no current plans for specific projects in that area and the area is not part of the upcoming tender for 9 GW offshore wind to be operational by 2030.”

Comment by Nature NGOs: We note with concern that within the Danish Marine Spatial Plan the envisaged development zone for renewable energy (Ev8) is immediately adjacent to the property, which could potentially, due to the large impact radii, have a negative impact on the OUV. During the next phase of planning in Denmark every effort should be made to include a buffer zone towards the property in the south, whereby the width of this buffer zone should be identified by the avoidance and disturbance effects on sensitive species in the area.

2.5 Authorisations of project proposals (Decision para. 13b and c)

13. *Further notes* the multiple existing and/or proposed extraction and infrastructure developments within and around the property, and *further requests* the three States Parties to:

b) Conduct a joint Strategic Environmental Assessment to assess the cumulative impacts of these developments on the OUV of the property, in line with the key principles of the Guidance and Toolkit for Impact Assessments in a World Heritage Context, prior to continuing to permit individual projects on a case-by-case basis,

This section addresses the WHC request to stop permitting individual projects on a case-by-case basis during the performance of the joint SEA. Section 2.6 describes the intended way forward in regard to the request to conduct a joint SEA to assess the cumulative impacts of various developments on the OUV of the property.

Pausing project permitting processes would impact projects which take place in the Wadden Sea World Heritage Site, or which might impact the Site’s OUV from outside. Based on EU and national law, pausing permitting procedures while waiting for the joint SEA study might not be possible in all cases due to legal rights (or other legitimations) for timely approval. However, following this recommendation within the possible scope of action is a choice of policy which would have effects on planned activities and needs the involvement of a wide range of stakeholders since it would have significant economic and social consequences.

Comment by Nature NGOs: On the other hand – given the high level of impact on the

OUV by some of the activities and the clear need to address cumulative impacts – the suggestion by the WHC is necessary and appropriate.

13. Further notes the multiple existing and/or proposed extraction and infrastructure developments within and around the property, and further requests the three States Parties to:

c) Authorise project proposals only if adequate assessments demonstrate that they will not have an adverse impact on the OUV of the property;

Current permitting processes in the three countries follow strict procedures under EU and national law which also cover the aspect of adverse impacts and possible cumulative effects. The States Parties always conduct adequate assessments on projects that could significantly impact a Natura 2000 site according to EU legislation. Natura 2000 aspects of sites spatially overlapping the property generally cover the OUV criteria of the Wadden Sea World Heritage Site. Therefore, assessments developed under EU law show significant overlap with an OUV assessment, although impacts on OUV criteria are not mentioned explicitly.

The improvement requested is the explicit consideration of the OUV in assessment/approval procedures. So far, this is considered within some planning processes but it is not common practice in environmental impact assessments for projects within and in the vicinity of the World Heritage Site. However, it has to be recognised that considering the protection of the OUV as a public concern in an environmental impact assessment, and in subsequent decisions on project permissions, might not necessarily entitle denial of a permit. Nevertheless, the protection of OUV is enforced through the above-mentioned correlation with established legally binding instruments²⁴.

2.6 Joint Strategic Environmental Assessment (Decision para. 13b)

13. Further notes the multiple existing and/or proposed extraction and infrastructure developments within and around the property, and further requests the three States Parties to:

b) Conduct a joint Strategic Environmental Assessment to assess the cumulative impacts of these developments on the OUV of the property, in line with the key principles of the Guidance and Toolkit for Impact Assessments in a World Heritage Context, prior to continuing to permit individual projects on a case-by-case basis,

Comment by Nature NGOs: We see the joint SEA as a very important and critical element for an adequate management of the property. For the risks involved, please see our comments in chapter 1, pages 9-10.

²⁴ Recent publications by the Waddenacademie argue for the Dutch situation that the implementation of international agreements, such as the World Heritage Convention, are in need of better implementation within the Dutch legal framework. A more detailed analysis has been done on protection of the OUV. The analyses and some proposals will be included in the SEA. Publications in Dutch:

<https://www.waddenacademie.nl/themas/natuur-en-recht/de-europees-en-internationaalrechtelijke-status-van-de-waddenzee/>.

<https://www.waddenacademie.nl/fileadmin/inhoud/pdf/04-bibliotheek/2024-01-Reflectie-met-beleidsaanbevelingen-nav-rapport-De-Europees-en-internationaalrechtelijke-status-van-de-Waddenzee.pdf>

The States Parties acknowledge the need to continue developing general knowledge on cumulative and combined effects of both climate change and human use. This topic is incorporated into The SIMP Integrated Management Plan for One Wadden Sea World Heritage (SIMP 2023, Annex 2). At the national levels, some existing tools based on common EU law provide a framework on cumulative effects to build upon (see heading *Legal and policy framework for assessment and management of cumulative effects*, below).

Comment by Nature NGOs: The need for cumulative impact assessments is also highlighted for the national marine spatial planning, such as in the German plan from 2021 (targeting the adjacent EEZ).

In the Wilhelmshaven Declaration 2023, the ministers acknowledge the different management approaches in the Wadden Sea countries and regions. These differences are a challenge but also regarded by the Parties as an opportunity. Recognising the benefits of joining forces to meet the challenges ahead, the Parties are committed to involving as many actors from the Parties as possible and to learning from each other to achieve the highest standards. Also, to create added value for, among others, the mandatory implementation of EU legislation by the Wadden Sea countries by pooling their nature conservation competences and striving for the highest ecological denominator. The request by WHC offers a good opportunity for further improvements in this field.

Comment by Nature NGOs: Harmful activities with a view on the entire Wadden Sea and the entire range of such activities should either be better mitigated or even stopped. What is evident is that the entire spectrum of activities needs to be taken into account to conduct the requested cumulative impact assessment.

Therefore, the States Parties think that the best way to address the task of developing a joint SEA is **to base it on EU legislation**. This will build methodologically on environmental assessments established in planning and approval procedures in the three states. This might lead to stronger consideration of World Heritage issues by the competent authorities, to better insights at the management level and, thereafter, it will support conversations on implementing outcomes in the national context and will allow for a trilateral learning experience on aligning policy on cumulative effects.

Comment by Nature NGOs: As stated above (chapter 1, pages 9-10), we do not think that it is sufficient to base a joint SEA on nationally implemented EU legislation (see [argumentation and NL reference already assessing this question above](#)).

Considering that the implementation of EU Directives is done at the national level, and knowing that the relevant EU SEA and EIA Directives take into account the cumulative nature of impacts, as well as cover the requirements of the Guidance and Toolkit for Impact Assessments in a World Heritage Context, and that the requisite of explicit integration of OUV still needs further improvement, it is proposed that a trilateral approach be taken to develop common understandings and agreements on the method. In a second step, these agreements are to be taken up in national components of the joint SEA.

Finally, trilateral integration is proposed to produce the joint SEA with conclusions and recommendations in relation to the OUV and to be submitted to the WHC (Figure 1).

The nationally developed components of the joint SEA and the joint SEA itself can work as a strategic tool to account for and reduce the identified cumulative effects. The above proposed approach respects local differences, for example in content or legal framework. Trilateral integration will allow trilateral discussion on what and where the highest ecological denominators are being used. The methodological approach for the joint overarching assessment of cumulative effects will be arranged at a trilateral level. CWSS will develop the overarching report aligning the nationally developed SEAs, with the support of independent consultants.

Additionally, the TWSC will work closely with the WHC and IUCN and has sought and will continue to seek professional dialogue with other sites that have faced or are facing the same challenge of undertaking an overall SEA.

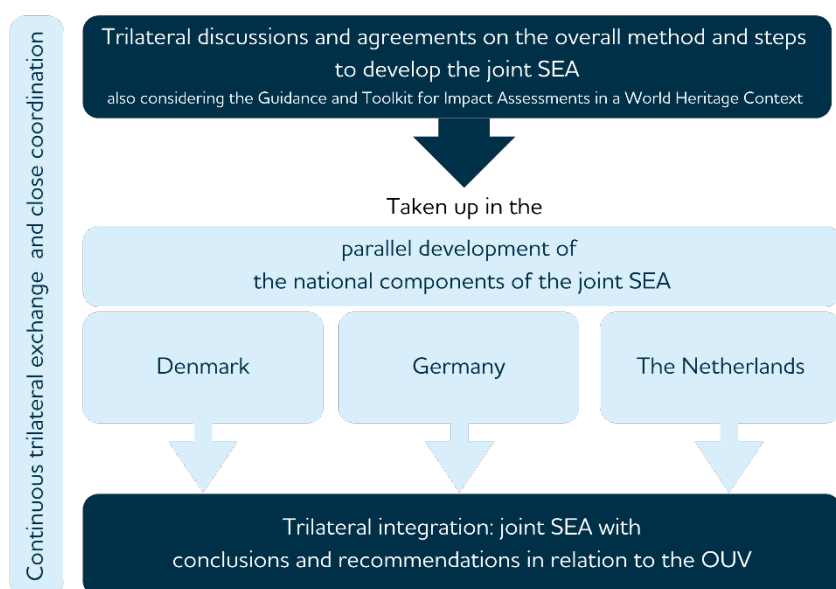


Figure 1. Proposed working structure for the development of the joint SEA to assess cumulative impacts.

Scope of the joint SEA

As the joint SEA is strategic, it should include relevant future projects, plans, and programmes if these may have potential impact on the OUV of the Wadden Sea World Heritage Site, also considering cumulative effects. The SIMP key topics can be used as categories to identify relevant projects, plans, or programmes.

Envisaged steps to develop the joint SEA

As a starting point, it is essential to have trilateral discussions and agreements on the goals: how the nationally developed SEAs and the integrative report might inform and improve current practices; the overall method, among others to allow for an appropriate consideration of the OUV and cumulative effects in future national decisions on projects, plans, and programmes, and the steps’ details.

The methodological agreements are to be taken up for the nationally developed SEA components produced in parallel to allow for later good trilateral integration.

The overall method with national and trilateral work steps envisages:

- Providing an overview of earlier permitted projects; screening expected plans, programmes, and projects/scenarios for foreseeable future usage within and around the Wadden Sea (derived from existing plans and programmes) falling under the SIMP key topics’ categories. Methodologically, it is intended to define and agree on identification criteria and/or typology for plans, programmes, and projects at certain stages to be considered in the joint SEA.
- Combining scoped information on the known and expected impacts of plans, programmes, and projects on the OUV, as well as identifying knowledge gaps (including cumulative effects).
- Assessing the identified existing and expected impacts in relation to the baseline scenario (description of the relevant aspects of the current state of the environment).
- Working out mitigation options to safeguard the OUV.
- Exchanging and coordinating trilaterally during the national parallel work as well as providing regular progress information to the WSB and advisors.
- An appropriate stakeholder participation process per country, as well as other countries acting as stakeholder according to nationally implemented EU law.

Table 1 shows the preliminary steps to develop the joint SEA, including national work steps and the trilateral approach (previous agreements and coordination throughout the development process).

Table 1. Steps of joint SEA including a preliminary idea of which steps require trilateral work and national work.

Steps to develop the joint SEA	National work step	Trilaterally coordinated approach
1. Description of existing protection regime/legal system including map with Natura 2000 sites and other areas protected under different regimes and the WH area.	x	Integration on one map
2. Screening and scoping: identification of relevant types of plans, programmes, and projects to consider, the impact related delimitation, period to review, whom to involve, identification of key values-attributes and gaps.	x	Common understanding of what to include and whom to involve
3. Baseline scenario: description of relevant aspects of the	x	Previous agreement

current state of the environment. A previous agreement on method and approach is needed, i.e., baseline scenario based on expert assessment or based on indicators and including the OUV attributes.		on method and approach
4. Assessment and analysis of foreseeable future impacts on the baseline (current state of the environment), including cumulative impacts, taking up trilateral agreements. Comment by Nature NGOs: The baseline should not be the “current state of the environment”, but the state of the environment at the time when the Wadden Sea was inscribed as a World Heritage, i.e. 2009 and 2014.	x	x
5. Appropriate stakeholder consultation and participation.	x	TWSC groups, WST
6. Conclusions and recommendations: Trilateral compilation and integration of outcomes of step 4 with special focus on cumulation, recommendations, for example to adapt planning processes permitting procedures to include OUV and attributes Comment by Nature NGOs: It should be added that the adaptation of planning and permitting procedures to include OUV and attributes must also include options such as better mitigation or the stop of certain activities.	x	x
7. Submit the joint SEA report to WHC		x

Legal and policy framework for assessment and management of cumulative effects

EU legal requirement to assess if projects, plans, and programmes are likely to have a significant effect on the environment are set up in the SEA, EIA, and Birds and Habitats Directives.

In the SEA Directive²⁵ (2001/42/EC), the cumulative nature of the effects is among the criteria for determining the likely significance of effects. In the EIA Directive²⁶ (2011/92/EU), the cumulation with other projects is a selection criterion to decide in a case-by-case basis if a project is subject to assessment. In the Habitats Directive²⁷ (92/43/EEC), setting up the Natura 2000 network, any plan or project that is likely to have a significant impact on a Natura 2000 site should be subject of appropriate assessment. Considering cumulative effects is an obligation in national Habitats Directive implementation in the case of projects or plans seeking permission.

Additionally, implementation of the Marine Strategy Framework Directive (MSFD)²⁸ (2008/56/EC) requires Member States to assess environmental status on a regular base (every six years), among others by identifying predominant pressures and impacts including human activities and taking into account the main cumulative and synergetic effects.

Trilateral policies aiming at the consideration of cumulative effects are presented below, as

²⁵ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32001L0042>

²⁶ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32011L0092>

²⁷ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A31992L0043>

²⁸ https://ec.europa.eu/environment/marine/eu-coast-and-marine-policy/marine-strategy-framework-directive/index_en.htm

well as a national example from the Netherlands working on reducing (cumulative) impacts of human use in the Wadden Sea and restoring the balance between ecology and economy.

The SIMP

Human use within the Wadden Sea World Heritage Site and the surrounding area is regulated through existing protection and planning regimes. However, stressors from the key topics (can) interact and combine over time, both with each other and with climate change effects, causing cumulative impacts on the marine and coastal environment. Assessment and management of cumulative effects require cross-sectoral and interdisciplinary consideration and exchange. In the SIMP key topics’ activities, cumulative effects are specifically asked to be considered in the analyses of existing data in terms of effects from tourism and in research around cable and pipeline laying, as well as when investigating (potential) effects of new types of energy production, storage, and transmission.

The Wilhelmshaven Declaration

In the Wilhelmshaven Declaration (May 2023, Annex 2), to protect and strengthen the Outstanding Universal Value, the ministers:

“**§ 11. Instruct** the Wadden Sea Board to promote the inclusion of cumulative aspects in decision making by taking into account the Guiding Principle and the Outstanding Universal Value;”

Additionally, **§ 36.** “...taking into account the cumulative effects due to increasing pressures from more intensive use of adjacent area [...]”, to **§ 43.** “[...] enhance the level of science based, adequate adaptive management to systematically safeguard the Outstanding Universal Value of the Wadden Sea, mapping best practices while applying and in regard to the precautionary principle, cumulative effects and the ecosystem approach.”, and **§ 44.** “[...] to support [...] Research with a focus on impacts on the Outstanding Universal Value and its key values as well as their adaptive capacity in view of challenges such as climate change and increasing human uses that cause cumulative effects [...]”

At the national level, cumulative effects will be considered in the Netherlands in a new policy framework for the Wadden Sea that is currently being developed. At the end of the first quarter of 2024, the scope of the Nature Policy Framework will be determined, including a clear insight into the product. This will provide clarity on potential synergies with the joint SEA development.

3. Other current conservation issues identified by the State Party(ies) which may have an impact on the property’s Outstanding Universal Value

Effective management of the Wadden Sea needs to secure nature conservation and an ecosystem approach that integrates management of existing protected areas with other key factors affecting the property. These include the most important economic activities in terms of impact, whilst safeguarding the OUV. Fisheries, tourism, shipping and ports, energy, and coastal protection are the most important socio-economic factors in the region. Nevertheless, the Statement of OUV (2014) also identifies these as key threats requiring ongoing attention. The information in this chapter focuses on these five SIMP key topics. Other general issues affecting the OUV of the Wadden Sea (in positive or negative ways) are presented at the end of Table 2 as an additional category.

For each of the key topics, The SIMP presents objectives, a summary of main risks, the enabling environment, and activities directed to maintain and enhance the OUV of the Wadden Sea World Heritage; therefore, they are not repeated in the following table.

Table 2. *Activities at trilateral and national levels which may have an impact (negative or positive) on the property’s Outstanding Universal Value by SIMP key topics.*

Fisheries	
TRILATERAL	Review and update the trilateral Framework for Sustainable Fisheries 2014. https://www.waddensea-worldheritage.org/framework-sustainable-fisheries
DENMARK	The information presented in the Nomination Dossier 2014 is still valid: in the inner part of the Danish Wadden Sea there is no fishing. West of the islands, beam-trawl based fishing activities continue unchanged.
GERMANY	Latest developments in mussel fisheries in Schleswig-Holstein: Blue mussel fishery and culture is regulated by the Fishery Law and the National Park Act of Schleswig-Holstein and are based on a specific mussel fishery programme. The current programme runs from 2017 until the end of 2031. Mussel fishery and culture include stocking mussel fisheries, management of mussel cultures, and the operation of seed mussel harvesting facilities. With the current programme, commercial blue mussel fishery and culture in the Schleswig-Holstein Wadden Sea National Park has been newly regulated. The new regulations are an important milestone in the protection and sustainable development of the National Park. Under the new agreements, 87 % of the National Park is free of any mussel fishery or farming. It only takes place in four tidal basins in the sublittoral (i.e., permanently flooded areas) of protection zone 2 of the National Park. In addition, various conditions in the permits (e.g., starfish and other bycatch must be handled with care, restriction of culture lots) ensure that

management is as nature-friendly as possible.

Management plan on blue mussel fishery in Lower Saxony: A management plan for the fishery of seed mussels in the Lower Saxon part of the Wadden Sea has been in place since 2004. The third update (2019-2025) again goes beyond the legal conservation framework to, among others, exclude around one third of traditional eulittoral wild mussel reefs from this fishery http://www.muschelfischer.de/download/Bewirtschaftungsplan_2019-2023.pdf.

Comment by Nature NGOs: The Blue mussel management in Lower Saxony is not yet supporting the OUV, e.g. because intertidal fishery is still allowed to some extent and too much of the subtidal is in principle allowed to be harvested.

Dialogue process with the shrimp fishery sector: The German federal states are planning to start specific, regional dialogue processes with the shrimp fishery sector in 2024 with the aim of implementing strict protection in line with the EU Biodiversity Strategy.

Comment by Nature NGOs: Of high relevance for a better protection of the Wadden Sea by this fishery (no-take-zones, less bycatch) is also the EU Action Plan for Sustainable Fisheries, the National Park regulations in the “Bundesnaturschutzgesetz”, and the Guiding Principle for the Wadden Sea. The dialogue process should aim for a win-win-situation, with better nature protection and a smaller but sustainable fleet.

THE NETHERLANDS

Buyout of fishing licences: In 2021, 10 million Euro were dedicated to the voluntary withdrawal of permits from shrimp fishermen in the Dutch part of the Wadden Sea. Nineteen out of 89 shrimp fisheries licences have been bought, leaving 70 with a permit for fishing for shrimps in the Wadden Sea. With the buy-out of licences, 11.3 % of shrimp fishing grounds (9300 ha) of the Wadden Sea are closed to shrimp fisheries, supported by an amendment in the Fisheries Implementing Regulation.

The closure contributes to protecting nature and allowing benthic life to recover, benefiting the Wadden Sea World Heritage Site and the Natura 2000 sites. In addition, buying out permits should offer the remaining shrimp fisheries better prospects for the future in areas that are not closed off. This will contribute to meeting the agreements made in the Viswad Agreement between NGOs and fisheries, such as achieving a level playing field.

Fishing licences need to be renewed periodically. The remaining shrimp fishers have recently requested the renewal of their licences based on the Nature Protection Law. This procedure has not yet been finished. Licences lost validity on 1 January 2023 and the Dutch Government allows shrimp fishing on these licenses as if still valid. This situation will continue until 31 December 2024. Funds are being sought for additional buy-out of licences. Completing the process will take two years and approval from the European Commission. Simultaneously, work is being done on giving the shrimp fisheries better economic prospects. Measures are being worked out in more detail.

Tourism

TRILATERAL

Review and update of the trilateral Sustainable Tourism Strategy (2014) and implementation of the action plan in the work fields: tourism operations and nature conservation; One World Heritage destination; transport; accommodation and gastronomy; environmental education and interpretation; and capacity building and raising standards in a collaborative approach. (Updated action plan on implementing the Sustainable Tourism Strategy <https://www.waddensea-worldheritage.org/de/node/1894>)

Transnational and cross-border EU funded projects: Several EU funded projects for transnational (Interreg B) and cross-border cooperation (Interreg A) with neighbouring Wadden Sea states have been and are being carried out, for example on strengthening cross-sectoral collaboration and developing and marketing products and services in the fields of nature and cultural tourism in the context of the Wadden Sea World Heritage Site. For examples see:

- PROWAD LINK: <https://northsearegion.eu/prowad-link/>
- NAKUWA: <https://www.interreg5a.eu/blog/projekt/nakuwa/>
- VABENE: <https://www.interreg-de-dk.eu/news-events/news/detail/2>

- WATTENAGENDA 2.0: <https://interregv.deutschland-nederland.eu/en/project/watten-agenda/> | <https://deutschland-nederland.eu/project/watten-agenda-2-0/>
Wadden Sea Quality Status Report Tourism <https://qsr.waddensea-worldheritage.org/index.php/reports/tourism>

DENMARK

Visitor management to protect nesting birds: Due to excessive pressure from tourists on the beach areas of Rømø, Skallingen, and Fanø, specific areas are closed at critical times to protect nesting birds. Volunteers (guided by the National Park) fence nesting areas every season to protect birds - not only from visitors (humans) but also from predators. Bird nesting sites move almost every year so the fences are temporary.

GERMANY

Visitor management to protect nesting birds: During the breeding season, the settlements of nesting birds on the beaches are recorded at an early stage. The breeding areas are demarcated by a mobile fence for the duration of the breeding season and signposted.
Implementation of the trilateral and regional action plans on sustainable tourism: To implement the Trilateral Strategy on Sustainable Tourism (2014) on the ground, the National Park Authorities of the German federal states are working together with the tourism sector to implement nature-friendly tourism in the Wadden Sea region on the basis of trilaterally coordinated regional action plans adopted in 2022.

THE NETHERLANDS

Since the 2016 SOC report, there has been an increase in arrivals and days spent (CBS: <https://opendata.cbs.nl/#/CBS/nl/dataset/82059NED/table>). Most tourism activities take place outside the World Heritage Site. Inside the World Heritage Site, tourism activities are mainly restricted to recreational boating, mudflat walks, excursions by boats, and ferry transport. The evaluation of the Natura 2000 management plan showed that recreational disturbance is among the top three pressures on the Wadden Sea.
https://www.waddenzee.nl/publish/pages/17012/natura_2000-beheerplan_waddenzee_jan2024.pdf

Visitor management: The recreational boating sector, together with the nature conservation sector, developed a code of conduct for the Wadden Sea. The code needs updating but is widely adopted.

New projects, like cycling along the dyke or designating specific zones for potentially harmful activities like kite surfing, consider potential negative impacts from recreational activities at the edge of the World Heritage Site and sensitive locations are avoided. There are, however, signs that mudflat walks are disturbing birds in certain areas that are hotspots for tourism. Currently the various site managers, Rijkswaterstaat, and the Management Authority are working on ‘interim measures’ to address the most relevant threats in the prelude to a new Natura 2000 management plan for the Wadden Sea.

In line with the trilateral Sustainable Tourism Strategy and the respective updated Action Plan, new tourism projects point towards sustainable tourism activities with strong OUV interpretation; for example, a project about hospitality addressing visitors and inhabitants is currently in preparation, including interpretation of the OUV by professionals, and aims at guiding visitors towards less sensitive areas. As part of the project, a special role is envisioned for entrepreneurs having a positive contribution to the OUV via their behaviour and a stewardship role towards visitors. They would be awarded with the label of World Heritage Ambassador.

For dredging for deepening of shipping routes for ferry traffic, see next section (“Shipping and ports”).

Shipping and ports

TRILATERAL

Led by the Dutch Ministry of Infrastructure and Water Management, the **status of implementation of the PSSA operational plans** will be reviewed trilaterally in collaboration with the competent authorities and other actors.

Sustainable shipping and ports operations in the Wadden Sea: To collaboratively address some of the current challenges (such as dredging and accidents), environmental NGOs, ports, ship owners, and other stakeholders developed a framework for collaboration. During the 14th Trilateral Governmental Conference in November 2022, the parties signed a joint statement that highlights their intention to further collaborate towards more sustainable shipping and port operations in the Wadden Sea: https://www.bund-niedersachsen.de/fileadmin/niedersachsen/bilder/pressemitteilungen/2022/2022.11.18_Joint_document_SustSPI_-_final_version.pdf

Most recent and largest shipping accidents:

- **MSC Zoe:** As a result of the incident with the containership MSC Zoe in 2019, the maritime administration of the Netherlands, in consultation with the maritime administrations of the other Wadden Sea countries, has taken several measures to prevent the loss of containers, to the extent possible, both at a national and international (through IMO) level. Some of the preventive measures are:
 - Provide warnings and route advice to containerships in specific environmental circumstances, based on several in-depth studies on the hydrodynamic phenomena of high transverse waves, and actively informing the maritime sector and IMO;
 - Develop active vessel traffic support to containerships;
 - Place the holistic approach of issue of container loss on the agenda of IMO;
 - Creating a better information position to the crew on board containerships, e.g., through the carriage requirement of an electronic inclinometer, and through an application predicting dangerous behaviour of the ship by parametric rolling;
 - Undertaking a broad study (called TopTier) on the causes of container loss worldwide, with the involvement of the relevant stakeholders, including the world's largest companies employing large containerships. This study runs until mid-2024 and is envisioned to provide results and recommendations that can be translated into enhanced or additional IMO instruments to be implemented worldwide.
- **Fremantle Highway:** On the night of 25-26 July 2023, the car carrier “Fremantle Highway”, under the flag of Panama, caught fire 27 km north of Ameland and the Wadden Sea World Heritage Site. The ship was abandoned, with one crew member's life lost. The ship was cooled down and kept in position. A pollution-control vessel stood by for immediate response to a potential oil spill or capsized. The fire died out within a week and a salvage company towed the ship to the port of Eemshaven. As of now, it is unknown if any pollution was released. Panama's authorities are investigating the incident, supported by the Dutch Safety Board.

The incident was a potential threat to the Wadden Sea World Heritage Site and underscores the significance of the Wadden Sea's designation as a Particularly Sensitive Sea Area (PSSA) in 2002, also referred to in the 2023 Wilhelmshaven Declaration. The Wadden Sea Board ensures the further implementation of the 2014 PSSA Wadden Sea Operational Plans and, in 2024, as mentioned above, will evaluate and review the existing safety measures to the PSSA Wadden Sea with the responsible shipping authorities and relevant stakeholders.

Wadden Sea Quality Status Report Harbours and Shipping

<https://qsr.waddensea-worldheritage.org/reports/harbours-and-shipping>

DENMARK

Expansion of the shipping lane into Esbjerg. EIA and World Heritage Impact assessment was shared with WHC (Letter 2 April 2020 Jour.nr. 18/02878. Response from WHC CLT/WHC/EUR/20/12866).

GERMANY

Regulation of marine traffic: Since 1992, navigation on the waters within the three German Wadden Sea National Parks has been regulated by a Navigation Ordinance (Verordnung über das Befahren der Bundeswasserstraßen in Nationalparks im Bereich der Nordsee; Befahrensverordnung – NPNordSBefV). This was amended 2023. It supplements

the protective provisions of the respective National Park Acts with regulations governing navigation, such as by spatial and temporal restrictions and also on speed. As such, it takes account of especially sensitive areas, notably resting and moulting areas of birds and resting areas for seals. The recent amendment takes up, for example, the introduction of new kinds of water sports as well as the seaward extension of the Wadden Sea World Heritage Site (2014).

Comment by Nature NGOs: We were in general in favour of an update of the Navigation Ordinance, but are concerned about too many fast traffic shipping lanes that are still allowed in the outer parts of the Wadden Sea and too many areas in particular in Schleswig-Holstein where kitesurfing is allowed.

Adaptation of estuaries to the requirements of marine traffic: The large outer estuaries of the Ems, Weser, and Elbe (adjacent to the World Heritage Site) are important access routes for the German import harbours and have therefore been successively adapted to the requirements of international shipping traffic for decades by straightening and deepening the fairways. Adaptation and ongoing maintenance of the fairways require dredging and deposition of dredged material. The adaptation procedure for the Elbe estuary was approved 2012, amended 2018 by the responsible shipping authority. Permission procedures for the deepening of the Weser and Ems outer estuaries are currently under preparation, the latter with transboundary aspects to the Netherlands.

<https://www.bvwp-projekte.de/wasserstrasse/w06/w06.html>, New opening planning approval procedure announced for 2024.

https://www.weseranpassung.wsv.de/Webs/Projektseite/Weseranpassung/DE/o1_Startseite/startseite_node.html

Scoping date in 2022 <https://bvwp-projekte.de/wasserstrasse/w45/w45.html>

Comment by Nature NGOs: We heavily criticize the deepening of the estuaries of Elbe, Weser and Ems are for the massive damage on the habitat integrity and the biodiversity. Part of the criticism is also the impact on the Wadden Sea World Heritage, as sedimentation and erosion there are modified, thus the OUV being impacted. This is particularly the case with the dumping of large amounts of mud from the Hamburg port and the Elbe close to Hamburg at sites close to the Wadden Sea (“Neuer Lichtergrund”, with ongoing proposals also for dumping close to the island of Scharhörn).

The NGOs are also seriously concerned about potential enlargements of the ports, which could be to the detriment of nature areas in or near to the Wadden Sea World Heritage.

THE NETHERLANDS

Pollution from discharge waste: It is illegal to discharge (industrial) waste into the Wadden Sea. Recently, (social) media attention was given to the news that almost sixty companies are discharging wastewater into the Dutch part of the Wadden Sea. These discharges are permitted and not expected to have a significant impact on the water quality of the Wadden Sea, even though the Dutch part of the Wadden Sea does not meet European regulations as defined in the European Water Framework Directive. The permits for discharge will be reviewed on a project basis and, if needed, adapted. Rijkswaterstaat, from the Ministry of Infrastructure and Water Quality, will prioritise starting with the highest environmental added value. Accumulation will be included in the review through including the water framework measurements. The emission test – now obligatory under law – will determine whether discharge is acceptable from the water quality point of view. A court case was started against the responsible authorities demanding additional work to be done to enhance the water quality.

Dredging for ferry traffic: The volume of dredging in the Dutch Wadden Sea has doubled in the past 15 years. The most important areas for dredging are the fairway to the island of Ameland (almost 50 % of total dredging volume) and the fairway from Harlingen to Terschelling and Vlieland. For the island of Ameland, the government of the Netherlands has started a participatory process for ensuring accessibility of the island while minimising the impact on nature. This should include lowering the dredging volume. Possible solutions are other types of ships and repositioning of harbours. For the other fairways, solutions such as a change of dumping locations and maintaining different fairway dimensions are also being investigated.

Energy

TRILATERAL

The topic of energy is addressed in the trilateral Task Group Coordination and Management with *ad-hoc* Working Group Renewable Energy (WG-RE). The WG-RE’s objective is to “Intensify the application of common best practices to protect the Wadden Sea, to support nature-friendly energy transition, and to foster a level playing field with the highest applied environmental standards for all three countries in a collaborative approach with the energy sector”.

In February 2024, the WG-RE started a trilateral project to generate information on the environmental impact of grid connection planning, permitting, construction, operation, maintenance, and removal, as well as mitigation options (including a mitigation toolbox). Such information is also intended as additional input to the Dutch project PAWOZ Eemshaven programme aimed at finding the best connection routes for offshore energy transmission.

Wadden Sea Quality Status Report Energy <https://qsr.waddensea-worldheritage.org/reports/energy>

DENMARK

Denmark does not have any oil and gas development that directly affects the Wadden Sea, but there are potential indirect effects as the Port of Esbjerg is the base harbour for all Danish energy activities in the North Sea (oil, gas, and green energy).

GERMANY

The NORD.LINK project (cable connecting Norway and Schleswig-Holstein) described in the 2016 SOC report has been operating since 2021. As planned, the same corridor was used as for submarine high-voltage power cables from offshore wind farms.

LNG-Terminals in Wilhelmshaven: Information was sent on 23 March 2023 upon request CLT/WHC/EUR/22/14101 from 19 December 2022.

Comment by Nature NGOs: The LNG-Terminals/-Developments at Wilhelmshaven, Eemshaven and Brunsbüttel are so close to the property that they might have an impact on the OUV. Two types of LNG terminals are planned: land-based and floating terminals. Both have a significant impact on the surrounding environment: The increased transport of LNG in tanks to the terminals, the operation of the terminals themselves, which is associated with high pollutant emissions, the use of massive amounts of seawater for cooling, as well as substances for cleaning the ships, some of which are toxic (e.g. chloride for the ship "Höegh Esperanza" in Wilhelmshaven).

THE NETHERLANDS

In the framework of the **Agenda for the Wadden Sea Region 2050 and its implementation programme**, abbreviated after its Dutch name as UP (for more information see Annex 3 Agenda for the Wadden Sea Region 2050), a research project will investigate the implications of the agreed Agenda and UP on energy transition plans. The project will also examine the potential contribution of the Wadden Sea Area to achieve the energy transition target and possible effects of on the Wadden Sea Region.

Coastal Flood Defence and Protection

TRILATERAL

With increasing climate change and its effects, such as sea level rise and the increase in storm events and floods, coastal protection is also facing new challenges.

Comment by Nature NGOs: It is of utmost importance for the future of the Wadden Sea and its OUV to combine the need to protect people from storm surges (coastal protection), and to protect the Wadden Sea from man-made sea-level rise (i.e. help it to adapt by “growing with the sea”). That means a.o.:

- Strengthen the natural resilience of the coast by protecting and restoring habitats such as dunes and salt marshes.
- Wherever possible, use soft shore protection by working with nature (such as sand supplementation, or other forms of sediment management) instead of using asphalt and

concrete (i.e. nature-based solutions). - Large parts of the Wadden Sea possibly need to grow through careful addition of sediment in the longer term. - Parts of the land behind the dykes should also be included in smart adaptation to sea-level rise. - New ideas for climate adaptation need to be tested in pilot projects and the results shared among coastal protection, nature conservation and others. - Nature restoration measures should preferably be planned in synergy with coastal protection, to achieve win-win situations, while also respecting the Guiding Principle for the Wadden Sea. Project MANABAS COAST: Funded by the EU Interreg North Sea Region Programme, this project intends to set the stage for widescale application and implementation (mainstreaming) of Nature-based Solutions (NbS) in coastal systems of the North Sea Region by developing a proven and accessible framework, tools, and guidelines based on pilot examples. In doing so, the project will ultimately enable integrated policies and decision making for the joint delivery of flood and coastal erosion risk management (FCERM) as well as biodiversity conservation. Pilot examples reach from Sweden to France and include several cases in the Wadden Sea. www.interregnorthsea.eu/manabas-coast
DENMARK The Wadden Sea dykes in the Danish part of the Wadden Sea are subjected to a regular safety and strength assessments. The aim is to adapt the dykes in the Wadden Sea in a timely manner in relation to future climate changes. Adaptation and reinforcement have been designed and completed for Kirkeby dyke and Juvre dyke on the island of Rømø. For the Darum-Tjæreborg dyke, planning work is currently being carried out and it is expected that strengthening work will begin in 2025. During 2023, a new survey of the Danish tidal basins started. The survey will include all geographical elements of the Wadden Sea, such as tidal channels, tidal flats, and salt marshes. Survey data for the entire Danish Wadden Sea is expected to be available in 2026.
GERMANY Coastal protection: In recent years there have been successive projects on raising and strengthening existing dykes, measures that need to be continued in the future. There are several projects and strategies such as the Schleswig-Holstein Wadden Sea Strategy 2100, the Generalpläne Küstenschutz in Schleswig-Holstein, and Lower Saxony, as well as innovative projects: https://www.nlwkn.niedersachsen.de/startseite/hochwasser_kustenschutz/kustenschutz/generalplane_fur_insel_und_kustenschutz/generalplan-kuestenschutz-45183.html https://www.schleswig-holstein.de/DE/fachinhalte/K/kuestenschutz/strategieWattenmeer2100.html schleswig-holstein.de - Küstenschutz - Generalplan Küstenschutz des Landes Schleswig-Holstein – Fortschreibung 2022 https://sandkueste-spo.de/ http://gute-kueste.de/en/gute-kueste-niedersachsen-en/ Comment by Nature NGOs: Coastal protection measures should take into account lessons learnt from projects that have aimed to make coastal protection more nature-friendly.
THE NETHERLANDS Due to the rising sea level, most flood defences around the Wadden Sea must be strengthened in the coming decades to protect human interest in the hinterland. The Netherlands is striving to improve the quality of ecosystems in the coastal zone by, for example, applying building with nature concepts as much as possible. Building flood defences carries a potential threat towards the OUV. In some cases, building into the Wadden Sea is preferred by project owners. This is generally not supported by the legal protection regime. To maintain and protect inhabited islands, the Netherlands continues to execute sand nourishment along the respective coastlines. Applying sand nourishment enables the coastal system and the Dutch

Wadden Sea to adjust to the rising sea level.

Other general issues affecting the OUV

TRILATERAL

Trilateral Partnership in Support of UNESCO Wadden Sea World Heritage. To strengthen collaboration between sectors and across countries, a new network was founded in 2019. The Partnership Hub is a strategic, multi-stakeholder, transboundary partnership, incorporating governmental and non-governmental sectors and networks committed to the protection of the Wadden Sea and sustainable regional development. The Partnership is inscribed at the UN SDGs Action platform as a multi-stakeholder partnership:

<https://sdgs.un.org/partnerships/trilateral-partnership-support-unesco-wadden-sea-world-heritage>

Dark Sky/Dark Sky Initiative. The preservation of nocturnal darkness directly supports and further enhances the protection of the Wadden Sea World Heritage’s OUV, while creating chances for visitors to experience nature, admire pristine starlight skies, and make a valuable contribution to the sustainable development of local communities, as shown at the certified Dark Sky Places in the Wadden Sea region.

The Trilateral Dark Sky Initiative started in 2019 as an informal trilateral network group now consisting of nature management organisations and authorities, individuals, NGOs, research institutes, and municipalities, with the aim of bringing together and (through synergies) further strengthening existing local initiatives in the Wadden Sea region. The trilateral approach facilitates exchange of knowledge on how best to manage the ongoing issue of light pollution. As light pollution can have a wide reach, the joint effort among geographically scattered initiatives is important for the creation of wider naturally dark sky places and corridors to mitigate the degradation and fragmentation of nocturnal habitats.

Trilateral project led by universities: <https://www.interregnorthsea.eu/kid>.

European project: <https://www.interregnorthsea.eu/darker-sky>

Continuation of the International Wadden Sea School (IWSS). Detailed information provided in Annex 5 of the 2016 SOC report. www.iwss.org

The WSFI's objective to strengthen capacity includes work with youth. The **East Atlantic Flyway Youth Forum** serves as an annual platform for young wetland conservationists to develop a useful skillset previously identified as needed, especially from a flyway perspective.

Youth Engagement. In September 2022 a first Trilateral Youth Conference was organised. Young people already engaged in the Wadden Sea came together to exchange, discuss challenges, and collect ideas that were transferred to the trilateral ministers during the 14th Trilateral Governmental Conference in 2022. Currently, a trilateral youth network is being built to further sustain the engagement of young people and the exchange among them across the three countries.

<https://exchange.waddensea-worldheritage.org/node/129>

Dutch-German science-call “Understanding complex pressures on the Wadden Sea and options for action”. Overarching topics to be addressed are climate change, rapid change in biodiversity, pollution, and the effect of local human activities on the Wadden Sea ecosystem. The Wilhelmshaven Declaration 2023 and The SIMP are among the framework documents for proposing and designing activities.

Since its establishment in 2012, the **Wadden Sea Flyway Initiative** (WSFI) has continued to strengthen close collaboration with local, regional, and international partners along the East-Atlantic Flyway. With its monitoring programme and the capacity building and management programme, the WSFI addresses key objectives to continuously strengthen cooperation and the integrated monitoring programme, establish a research programme, promote the wise use of coastal resources, strengthen capacity for conservation, management, and monitoring, strengthen policies, and build awareness.

<https://flyway.waddensea-worldheritage.org/>

The **Climate Vulnerability Index (CVD)** rapid assessment method was applied in the Wadden Sea in 2020, based on the IPCC 2019 report “Ocean and Cryosphere in a Changing Climate”. It includes new projections on global mean sea level rise – a factor highly relevant to

the Wadden Sea ecosystem. Results were the identification of three key stressors of climate change which will affect the Wadden Sea World Heritage Site: extreme heat events, temperature increase, and sea level rise. The three stressors were held against the key values of the OUV, and possible impacts of climate change were discussed for two timeframes: 2050 and 2100. The rapid assessment suggested that the OUV’s vulnerability is high overall for both timeframes. The impact of the first two key climate stressors was considered as high for both time periods. The sea level rise stressor was seen as low with regard to 2050, with a less rapid rise in this period, and as high for 2100, with the sea level expected to rise more rapidly between 2050 and 2100. The “high vulnerability” scenario states that a major loss or substantial alteration of the majority of the OUV attributes is foreseen if the climate continues to change.

<https://www.waddensea-worldheritage.org/resources/2020-cvi-report>

DENMARK

The second-generation **Marine Strategy Framework Directive Action Plan** is presently in a public hearing process. The plan includes Wadden Sea specific measures and brings together the decided actions that contribute to achieving and maintaining good environmental conditions in the sea, thus implementing specific Wadden Sea measures, such as the SIMP.

Nature restoration projects; the National Park and the Nature Agency, together with the Danish Nature Fund and other partners, are involved in major restoration projects benefiting the OUV:

Nature restoration to increase habitats primarily for breeding birds on Mandø, see:

<https://naturfonden.dk/natur/mandoe/> (in Danish)

Nature restoration and bird protection: <https://lifewaddenseabirds.dk/>

And a newly started project: <https://lifewaddenseabirds.dk/projektomrader/margrethe-kog>

Regional partnership programmes: For more than ten years, the Wadden Sea National Park has been facilitating partner programmes to support local communities, including local businesses. On a voluntary basis, partners focus on more sustainable development, especially regarding tourism. The World Heritage Partnership Programme provides education on the Wadden Sea World Heritage Site and its OUV. <https://nationalparkvadehavet.dk/udvikling-og-samarbejde/partnerprogrammet>

GERMANY

Expansion of the UNESCO Biosphere Reserves: The three German Wadden Sea National Parks in the federal states of Schleswig-Holstein, Hamburg, and Lower Saxony have been UNESCO Biosphere Reserves under the Man and the Biosphere Programme since the early 1990s. In 2022, the three states submitted an application to UNESCO to extend the respective transition area of their Biosphere Reserves. In 2023, the application was accepted. The expansion of the Biosphere Reserves also supports the achievement of the Sustainable Development Goals (SDGs), which is a key objective of the Trilateral Cooperation, for example in the areas of tourism and education within the wider setting of the Wadden Sea World Heritage Site.

Habitat restoration for increased CO₂ sequestration: Salt marshes and seagrass meadows play a special role in natural carbon storage in the Wadden Sea ecosystem. With a spatial focus on Lower Saxony, the restoration measures of salt marshes already mentioned in the 2016 SOC report were continued by opening summer dykes and restoring a near-natural tidal drainage and watering system. Further restoration projects with the aim of increasing natural "Blue Carbon" storage capacities are also in preparation for the near future.

Management planning for Natura 2000: To supplement and concretise the trilateral Wadden Sea Plan 2010 as an overarching Natura 2000 management plan, the federal states have drawn up detailed sectoral plans for maintaining and restoring the favourable conservation status of Natura 2000 sites, some of which are problem-specific, for partial areas or region-wide. See for example:

<https://www.nationalpark-wattenmeer.de/wissensbeitrag/ffh-massnahmenplanung-fuer-das-ffh-gebiet-001-nationalpark-niedersaechsisches-wattenmeer/>

Marine Strategy Framework Directive: In the course of implementing the MSFD, the second generation of German Programme of Measures was published in 2022. The implementation of measures is on-going. The programme includes measures to achieve and maintain good environmental conditions and strengthens the protection level, including in the German Wadden Sea, thus contributing to safeguarding the OUV and integrity of the World Heritage Site.

<https://mitglieder.meeresschutz.info/de/berichte/massnahmenprogramm-art-13.html>

Education / visitor centres: The Wadden Sea National Park houses and visitor centres in the federal states of Schleswig-Holstein, Hamburg, and Lower Saxony are to receive substantial additional funding from the Federal Government of Germany in the coming years to extend the existing network of facilities and modernise the exhibitions, among other things. National Park visitor centres interpret the World Heritage Site to interested guests and inhabitants, which thus supports protection of the Wadden Sea.

Regional partnership programmes: For more than ten years, the German Wadden Sea National Park Authorities in Schleswig-Holstein and Lower Saxony have been facilitating partner programmes, which they have been able to expand significantly in recent years, both in terms of the number of partner organisations and the range of sectors represented. They also exchange information across the Wadden Sea as part of the trilateral Partnership in support of the Wadden Sea World Heritage, the Partnership Hub. The certified partners of the National Parks and UNESCO Biosphere Reserves are ambassadors of the Wadden Sea region. With their commitment, National Park and Biosphere Partners raise awareness among guests and locals for the protection and sustainable development of the Wadden Sea region. <https://www.nationalpark-wattenmeer.de/mitmachen/kooperation/nationalpark-partner/>

THE NETHERLANDS

The Dutch Management Plan of the Wadden Sea for Natura 2000 is being evaluated and will be updated, starting in 2024. The aim is to improve management, the design of the area (regarding habitats like salt marshes, for example), and potentially drafting measures to reduce human impacts.

The plan is based on the Birds and Habitats Directives and maps the status of legally protected habitats and species. The evaluation shows that the general conservation status of the Dutch part of the Wadden Sea is insufficient: the status of the habitat type “sandbanks covered all the time” (H1110A) and salt marshes are not optimal and various bird targets are not met. The update of the plan will be done in consultation with competent authorities.

<https://www.rijkswaterstaat.nl/nieuws/archief/2024/01/natuurbescherming-waddenzee-kost-meer-tijd>

https://www.waddenzee.nl/publish/pages/17012/natura_2000-beheerplan_waddenzee_jan2024.pdf

The Dutch Management Authority

The Dutch Management Authority, installed in 2020, works on measures and activities which strengthen the integrated management of the Dutch part of the Wadden Sea. This implicitly includes the protection of the OUV. The Management Authority therefore has a wider responsibility than the Dutch Management Plan of the Wadden Sea for Natura 2000. Responsibilities of the Management Authority include increase in legal enforcement capabilities, nature management in salt marshes, and supporting further cooperation between the various site managers involved in the protection of the Dutch part of the Wadden Sea.

The Wadden Fund, a fund of 600 million Euro, was established in 2007 to compensate for the gas drilled under and near the Wadden Sea. Its main objectives are:

- To strengthen nature and landscape of the Wadden Sea area.
- To reduce external threats to the Wadden Sea World Heritage Site.
- Transition toward a sustainable economy in the Wadden Sea area, including sustainable energy.
- Knowledge development.

Through the Fund, often with extra finance from the provinces and the central government,

over 200 projects have been financed so far (see a full list of projects in Dutch: <https://waddenfonds.nl/projecten/>). Some notable projects since 2016 directly influencing the OUV are:

- Fish migration river through the “Afsluitdijk”
- Restoration of sea grass
- Integration of coastal protection with nature development resulting in a large successful breeding colony of sandwich terns at Prins Hendrik Zanddijk,
- Green shipping Wadden Sea
- Fleet redundancy shrimp fishery
- Support to various visitor centres
- Scientific research by the Wadden Academy for improving the understanding of the Wadden Sea system.

Programmatic Approach to Large Waters. In the Netherlands, various projects take a strategic approach on preparing the Wadden Sea for the effects of climate change, among them the Programmatic Approach to Large Waters (PAGW, 2018-2050), which is a programme of the Ministries of Infrastructure and Water Management (IenW) and Agriculture, Nature, and Food Quality (LNV). This national programme was set up to strengthen ecosystems in large waters to create conditions under which ecological water quality is improved and nature can become more robust. PAGW brings together regional governments, knowledge institutions, companies, social partners, and nature organisations, investigating with them potential synergies with regional tasks.

Specific projects:

- Lauwersmeer-Vierhuizergat, dyke improvement to restore the connection between the Wadden Sea and the hinterland, soften the hard edges of the mudflats, build gradual fresh-salt transitions, and develop salt marshes.
- Investigating potential (large-scale) system interventions to restore the connection between the Wadden Sea, the Eems, and the hinterland.
- Creation of a vision for the Wadden Sea to provide a quantitative picture of what is needed to achieve PAGW’s goals for 2050. The target image will indicate the need to improve habitats, the connections needed between water and land, and water to allow for natural processes and dynamics to proceed undisturbed. But, in addition, a description of the management needed and possible human use. A first version of the target image, based on existing information, is planned for 2024. The vision will be a shared product between the Programmatic Approach, the Dutch Management Authority, and the Policy Framework for the Wadden Sea.

Ecological Wadden Sea Impulse Package (18 million Euro for the period 2023-2026) to be invested in strengthening the ecology of the Dutch part of the Wadden Sea World Heritage Site. Specific projects funded by the Impulse Package are, for example, implementation of the second phase of the Dutch Breeding Bird Action Plan “We & Wading birds”, additional research and monitoring of waterbirds, the Dutch Integrated Wadden Sea Management Plan under development by the Management Authority together with the site managers of the Dutch part of the Wadden Sea, restoration of fresh-salt transitions such as the project Fish Migration River, and research into ecological effects of climate change.

<https://www.vismigratierivier.nl/>

4. Potential major restorations, alterations, and/or new construction(s)

that may affect the Outstanding Universal Value of the property

For specific aspects of new developments or projects which may affect the OUV of the property to be reported in conformity with paragraph 172 of the Operational Guidelines, we refer to the ongoing communication with UNESCO.

5. Public access to the state of conservation report

The State of Conservation Report 2024 should be made fully available for public access on the World Heritage Centre’s State of Conservation Information System, as well as the home page of The Trilateral Wadden Sea Cooperation.

6. Signature of the Authority

This report is signed and submitted by Denmark on behalf of the three States Parties.

7. Annexes

- I. Wilhelmshaven Declaration 2023**
- II. The SIMP Integrated Management Plan for ONE Wadden Sea World Heritage**
- III. List of relevant Climate change plans and policies at the national level**
- IV. Decision 45 COM 7B.23**

Annex I. Wilhelmshaven Declaration 2023

Annex II. The SIMP Integrated Management Plan for ONE Wadden Sea World Heritage

Annex III. National Strategies for Climate Adaptation in the Wadden Sea Region

Climate adaption plans and policies in Denmark

Due to its topography, with thousands of kilometres of coastline and countless islands, Denmark is particularly vulnerable when seawater and groundwater rise due to climate change.

Since the mid-2000s, Denmark has therefore adapted several climate adaptation policies and plans to mitigate and adapt to the effects of climate change, including sea level rise particularly relevant to the Wadden Sea. They include:

- **Climate Adaptation Plan 2008:** This plan was one of Denmark's first broad initiatives to address climate change. It focused on various areas, including securing water supply, protecting nature, adapting buildings, and protecting against flooding and storms.
- **Climate Proofing Denmark - A National Climate Change Adaptation Strategy:** This 2013 strategy outlined how Denmark could climate-proof itself by adapting to climate changes. It emphasized cross-sectoral collaboration, knowledge sharing, and utilizing green growth potentials. <https://en.klimatilpasning.dk/>
- **Municipal Climate Change Adaptation Plans:** Since 2013, all 98 municipalities in Denmark have been required to produce municipal climate change adaptation plans. These plans include measures to address local climate risks, such as increased rainfall, rising sea levels, and more frequent and severe storms. <https://www.klimatilpasning.dk/kommuner/klimatilpasning-i-kommunerne/>
- **Danish Climate Act 2020:** This act is an ambitious piece of legislation aiming for climate neutrality by 2050. It also requires a strategy for climate adaptation and

resilience. <https://mim.dk/media/236250/regeringens-udspil-til-klimatilpasningsplan-1.pdf>

- **Denmark's National Strategy for Climate Adaptation:** The national strategy provides a framework for how society can adapt to the changing climate. It includes a focus on integrating climate considerations into municipal planning. https://www.klimatilpasning.dk/media/5322/klimatilpasningsstrategi_03032008.pdf
- **Climate Adaptation Portal:** The Danish Environmental Protection Agency has developed a portal to provide municipalities and citizens with information, tools, and examples of climate adaptation solutions. <https://en.klimatilpasning.dk/>

Most recently, the government has initiated the National Climate Adaptation Plan, taking effect in 2024. This fully financed plan targets securing coasts, cities, homes, and infrastructure against the consequences of climate change, and is aimed at municipalities and landowners. The plan contains, among others, state involvement in exposed areas by the sea, solution to the challenges of high groundwater levels, a coastal protection pool, protection of Denmark's west coast (including the Wadden Sea), and a new civil service advisory committee.

Further, Denmark will be conducting a full hydrographic survey of the Danish Wadden Sea, including tidal areas, to assess developments in sea level rise as a basis for climate-adaption measures, etc.

Climate adaption plans and policies in Germany

Germany is fulfilling its responsibility for strict climate protection in line with the goals of the Paris Agreement through specific regulations and measures. The current German Climate Protection Act enshrines the goal of greenhouse gas neutrality by 2045, with emissions set to fall by 65 per cent by 2030 compared to 1990. The German government is driving climate protection forward with the Climate Action Programme 2030²⁹ and the Immediate Climate Action Programme 2022³⁰.

In November 2023, the Federal Parliament passed the first nationwide Climate Adaptation Act. With this law, the Federal Government is providing a binding framework for climate adaptation at the federal, state, and local levels. This should make it possible to coordinate climate adaptation activities at all levels and advance them across all fields of action. The aim is for climate adaptation concepts to be developed at federal levels in the future in order to take the necessary steps for comprehensive climate precautions in Germany in a targeted manner with a systematic analysis of those affected and planning of measures.

In addition, the Federal Government is currently revising its "German Strategy for

²⁹ <https://www.bundesregierung.de/breg-en/issues/climate-action>

³⁰ <https://www.bundesfinanzministerium.de/Content/EN/Standardartikel/Topics/Priority-Issues/Climate-Action/immediate-climate-action-programme-for-2022.html>

Adaptation to Climate Change"³¹ (DAS) from 2008. It presents possible climate impacts and adaptation options in 16 different fields of action, including coast and sea. The aim of the DAS is to reduce climate risks in natural, social, and economic systems, increase the adaptability of these systems, and utilise potential opportunities.

The Schleswig-Holstein Wadden Sea Strategy 2100

The Wadden Sea Strategy 2100³² examines what impacts are to be expected in the Wadden Sea of Schleswig-Holstein due to climate change and presents options for action. The strategy has been developed by experts from the coastal protection and national park authority of the state of Schleswig-Holstein with the participation of representatives from the municipal level and non-governmental organisations. It was adopted by the state government in 2015 and the first pilot projects have since been carried out.

Hamburg develops solutions to improve the resilience of cultural landscapes

Within the framework of the EU project RescueME³³, Hamburg Wadden Sea National Park has joined the development of inclusive and equitable resilience strategies and innovative solutions to protect Europe's natural and cultural heritage and cultural landscapes from climate change, disaster risks, and other events (e.g. pollution and excessive tourism). The project engages stakeholders, facilitates decision-making, and enhances the implementation of co-created and just resilience solutions to protect our common heritage.

Lower Saxony's strategy for adapting to the consequences of climate change 2021

The Lower Saxony Climate Act (NKlimaG) obliges the state government to develop a strategy for adapting to the consequences of climate change and to update it every five years. The first effects of climate change are already being felt in Lower Saxony: the average temperature has risen by 1.7°C compared to 1881. The Lower Saxony Climate Change Competence Centre (NIKO) has developed the "Lower Saxony Strategy for Adaptation to the Consequences of Climate Change"³⁴ based on the "Recommendation for a Lower Saxony Strategy for Adaptation to the Consequences of Climate Change" from 2012. The strategy covers 17 fields of action that will be affected by climate change and sets out the adaptation strategies that are required. Among them are nature conservation and coastal protection, both of relevance for the Lower Saxon Wadden Sea. Adaptation will be done with a long-term perspective for expected future developments. The consequences of climate change induced accelerated sea

³¹ <https://www.umweltbundesamt.de/en/topics/climate-energy/climate-impacts-adaptation/adaption-to-climate-change/adaptation-at-the-federal-level#further-development-of-the-das>

³² <https://www.schleswig-holstein.de/DE/fachinhalte/K/kuestenschutz/strategieWattenmeer2100.html>

³³ <https://resilientculturallandscapes.eu/about/project>

³⁴ https://www.umwelt.niedersachsen.de/download/178371/Niedersaechsische_Strategie_zur_Anpassung_an_die_Folgen_des_Klimawandels_2021.pdf

level rise scenarios (as reported by IPCC) have also been taken into account in Lower Saxony’s coastal protection strategy via the General Plan for Coastal Protection.

Climate adaption plans and policies in the Netherlands

Climate adaptation policy³⁵ in the Netherlands is administered by the Climate National Adaptation Strategy (NAS) and by the Delta Programme. The government is in the process of adapting the NAS based on the Meteorological Institute’s (KNMI) climate scenarios published in 2023. The Delta Programme (2023) provides the latest risk assessments and adaptation measures.

Agenda for the Wadden Sea Region 2050

The Dutch Agenda for the Wadden Sea Region 2050³⁶ (2021) gives an overarching regional strategy for a safe, healthy, and resilient Wadden Sea Region in 2050. The Agenda is a guiding and strategic perspective on the development of the Wadden Sea Region shared by national and local governments as well as water authorities, environmental NGOs, ports, fishery, agriculture, and civil society. The main goal is to achieve “sustainable protection and development of the Wadden Sea as a natural area and maintaining the unique open landscape”. Challenges and strategies addressed in the Agenda include climate change and energy transition. The geographic scope is broader than the Dutch part of geographically defined World Heritage property, but fully includes it.

The Agenda was worked out into more detail in the implementation programme Wadden Area 2021-2026 (UP). The UP was approved by the Dutch Policy Board of the Wadden Sea Region in February 2023. Approval of the UP is the start of a multiyear and close cooperation with most of the stakeholders around the Dutch Wadden Sea Region. The UP consists of 30 initiatives which simultaneously work on sustainable protection and development of the Wadden Sea as a nature area, protection of the unique open landscape, and a safe, healthy, and resilient Wadden Sea Region. Short term actions focus on, among others, accessibility to the islands, coastal development, fisheries, and the effects of climate change. This is in line with the Dutch position that World Heritage areas offer space for both development and growth under the condition that the OUV of the World Heritage remains intact. A first progress report will be published in 2024.

Annex IV. Decision 45 COM 7B.23

³⁵ <https://klimaatadaptatienederland.nl/en/policy-programmes/>

³⁶ <https://agendavoorhetwaddengebied2050.waddenzee.nl/>