



Bird aggregation © Jan van de Kam

# **Joint Strategic Environmental Assessment on cumulative effects DRAFT SCOPING REPORT**

## Wadden Sea World Heritage Site

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Task Group World Heritage (TG-WH)



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*[Note: This is a draft document]*

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## Summary

The World Heritage Committee has requested a joint Strategic Environmental Assessment (SEA) to assess the cumulative impacts on the Outstanding Universal Value (OUV) of the Wadden Sea World Heritage Site (Decision WHC/23/45COM/7B.23). The joint SEA, which goes beyond standard environmental assessments of the European Union (EU), aims to integrate transboundary effects and consider all activities that may impact the OUV.

This draft Scoping Report, part of the joint Strategic Environmental Assessment (SEA) development process, responds to the request of the World Heritage Committee in Decision WHC/24/46.COM/7B.Add.3, Wadden Sea (Denmark, Germany, Netherlands) (N 1314ter) to:

*14 b) Submit the scoping report of the SEA to the World Heritage Centre for review;*

The draft Scoping Report sets out the main issues, the approach and methodology to be used in the assessment of potential impacts and impacts from cumulative effects on the Wadden Sea's OUV key values, attributes, and other relevant related values. The draft Scoping Report will be subject to national consultations and trilateral consultations with advisors from the environmental NGOs. Suggestions from consultations as well as from the World Heritage Centre (WHC) and the advisory body International Union for Conservation of Nature (IUCN) will update the Scoping Report. Once reviewed and refined, the Scoping Report will form the basis for the terms of reference for the joint SEA.

# 1. Introduction

## 1.1 Background and task

The World Heritage Committee, in its extended 45<sup>th</sup> session in Riyadh, Saudi Arabia, 10 to 25 September 2023, in Decision 45COM 7B.23<sup>1</sup>, expressed concerns about different human activities within, near, or beneath the transboundary World Heritage Site “The Wadden Sea”, and

*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,*

In the State of Conservation Report 2024<sup>2</sup> (SOC report 2024), the State Parties committed to carry out the requested joint Strategic Environmental Assessment (SEA) and provided initial information on the trilateral agreements on the scope and approach.

The scope of the joint SEA was agreed:

- Other than the strategic environmental assessment defined by the EU Strategic Environmental Assessment Directive, this joint SEA is not limited to the level of programmes and plans but also includes relevant projects and pays particular attention to the Outstanding Universal Value (OUV).
- Rather than looking at a single programme or plan, the joint SEA directs attention to cumulative effects of relevant programmes, plans and projects (PPPs), in a transboundary perspective.
- Include relevant currently known PPPs, if these may have potential relevant impact on the OUV of the Wadden Sea World Heritage Site, also considering cumulative effects.
- The SIMP – Integrated Management plan for ONE Wadden Sea World Heritage key topics serve as categories to identify relevant PPPs.
- In the *ad-hoc* meeting held on the side of the 46<sup>th</sup> session of the World Heritage Committee 2024, between WHC, IUCN, and the Wadden Sea World Heritage Site, the WHC clarified that all activities with potential effects on OUV, including cumulative/combined effects, should be included in the scoping document. This includes consideration of sand and silt extraction and sediment handling in general, regardless of whether it is classified as an extractive activity or not.
- For most of the PPPs in the three states that are included in the joint SEA, environmental

<sup>1</sup> <https://whc.unesco.org/en/decisions/8297>

<sup>2</sup> [www.waddensea-worldheritage.org/2024-report-state-conservation-world-heritage-property-wadden-sea-n1314](http://www.waddensea-worldheritage.org/2024-report-state-conservation-world-heritage-property-wadden-sea-n1314)

assessments have been carried out during planning or approval processes according to EU legislation (EU SEA and Environmental Impact Assessment (EIA) directives (2001/42/EC, (2011/92/EU)). Hence, the existing environmental impact assessments and strategic impact assessments serve as information basis for the joint SEA.

- EU legislation provides a common basis for all EU Member States. Therefore, the methods for the joint SEA are based on European guidelines that are implemented nationally in all three states. However, this means breaking new methodological ground, particularly due to the transboundary approach, the fact that no specific new plan, project or programme forms the basis of this SEA and the inclusion of the OUV.

To emphasise that this strategic environmental assessment does not evaluate a single plan or programme, but a variety that also includes projects, and focusses on cumulative effects in a transboundary approach and is called exactly:

Joint Strategic Environmental Assessment (SEA) on cumulative effects

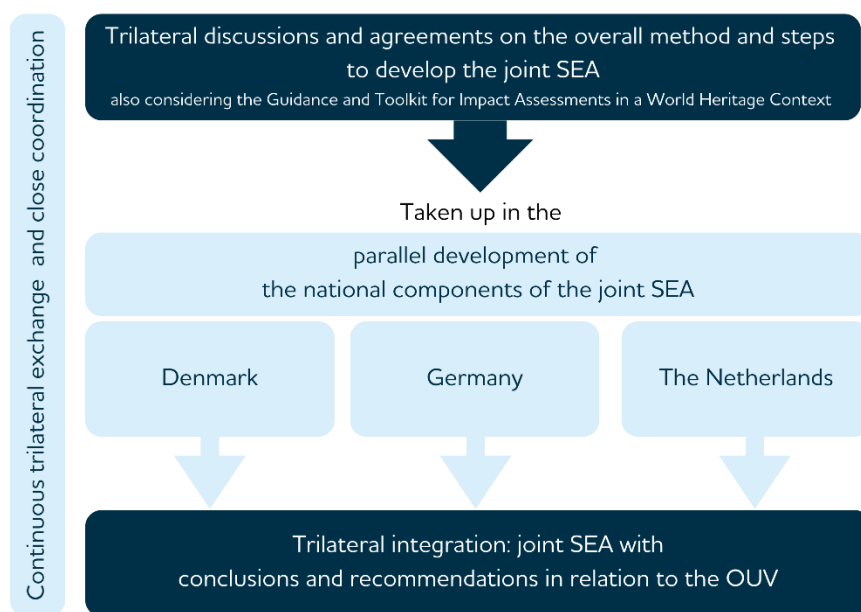
## **1.2 Working structure for the development of the joint SEA on cumulative effects**

Considering that the implementation of EU Directives takes place at national level and recognising that the relevant EU SEA and EIA Directives take into account the cumulative nature of impacts, it was proposed that a trilateral approach be taken to develop common understandings and agreements on methodology. This should include the principles of the Guidance and Toolkit for Impact Assessments in a World Heritage Context<sup>3</sup>. In a second step, these agreements should then be taken up in the 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).

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<sup>3</sup> UNESCO/ICCROM/ICOMOS/IUCN (2022). *Guidance and Toolkit for Impact Assessments in a World Heritage Context*. Paris, UNESCO.





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

The use of the existing common legal framework could lead to greater consideration of World Heritage issues by the competent authorities, better insight at the management level, and subsequently support discussions on the implementation of the outcomes in the national context and provide a trilateral learning experience on policy alignment on cumulative effects.

In the 46<sup>th</sup> session in New Delhi, India, 21 to 30 July 2024, the World Heritage Committee in Decision WHC/24/46.COM/7B.Add.3 requests moreover the State Parties to:

14. a) Ensure that the focus of the SEA is on the potential impacts on the attributes which convey the OUV of the property, as well as other heritage/conservation values, in accordance with the principles of the Guidance and Toolkit for Impact Assessments in a World Heritage Context,
- b) Submit the scoping report of the SEA to the World Heritage Centre for review;

This document is the draft Scoping Report, part of the joint SEA process, and sets out the main issues, the approach and methodology to be used in the assessment of potential impacts and impacts from cumulative effects on the OUV key values, attributes and other relevant related values of the Wadden Sea.

Once reviewed and refined, the scoping report will form the basis for the terms of reference for the joint SEA. The joint SEA will be subject to stakeholder consultation before being finalised and reflected in the next Ministerial Declaration on the protection of the Wadden Sea by the Trilateral Governmental Council.

### **1.3 The purpose of the joint SEA**

The joint SEA will provide a better insight into the proven and expected cumulative pressures on the OUV. Therefore, it will identify and evaluate the cumulative pressures from PPPs and the consequences for the Outstanding Universal Value of the Wadden Sea. The results of the joint SEA will provide information that can be used for future decision-making and should further improve the consideration of the OUV and help to reduce cumulative pressures on the OUV attributes and other relevant related values of the Wadden Sea.

### **1.4 The process of developing the draft scoping report**

Requests § 14 a) and b) above were taken up by the temporary SEA subgroup set up by the trilateral Task Group World Heritage (TG-WH) in October 2023 to guide the process of preparation and coordinated implementation of the joint Strategic Environmental Assessment.

Representatives of the Trilateral Wadden Sea Team of the environmental NGOs, who also act as Advisors to the Wadden Sea Board (WSB), were involved in developing the draft scoping report.

The draft scoping report was backed by the TG-WH and the WSB Members for submitting to WHC and IUCN.



## 2. The Wadden Sea World Heritage Site

The Wadden Sea was inscribed onto UNESCO’s World Heritage List in 2009 (and extended in 2011 and 2014) in recognition of its OUV. The global importance declared in the Statement of OUV recognises that the Wadden Sea is globally unique as the largest unbroken intertidal back-barrier sand and mudflat ecosystem in the world. Natural processes continue to thrive largely undisturbed, creating a variety of barrier islands, channels, flats, tidal creeks, saltmarshes, and other coastal and sedimentary features. The Wadden Sea is rich in species specially adapted to these environmental conditions. These conditions also make the Wadden Sea a vital spot for migratory birds in the East Atlantic Flyway, which plays a critical role in the conservation of African-Eurasian migratory waterbirds.

The Statement of OUV further recognises that the integrity, and the protection and management requirements are met: the extended property includes all the Wadden Sea ecosystems and is of sufficient size to maintain critical ecological processes and to protect key features and values. The property is subject to a comprehensive protection, management and monitoring regime with regulated human activities to minimise adverse impacts.

Sustainable usage of the Wadden Sea Area has been taking place for centuries. The Wadden Sea Area does not only include the Wadden Sea as a natural ecosystem, but it is also an area where people live, work and recreate. Nature conservation within the Wadden Sea is needed in order to continue living, working and recreating. Conservation is organised at national level (see SIMP, Chapter 3), under the umbrella of trilateral agreements, so that attention is paid to the key values of the Wadden Sea World Heritage Site in terms of its ecosystem functions, its global importance, especially for migratory birds, its biodiversity and the uniqueness of geomorphological processes. It is also important for nature experiences and landscape values such as the open landscape, vastness, silence and darkness.

In this context, the Trilateral Monitoring and Assessment Program (TMAP) and the following Quality Status Reports (QSR), as well as QSR Synthesis Reports (in preparation) offer valuable insight into the state of the OUV and its key values.

Simultaneously, the recent period saw various (new) activities with a possible impact on the Outstanding Universal Value, raising attention on possible cumulative pressures of such activities. This led to specific agreements in the Trilateral Governmental Wilhelmshaven Declaration 2022:

- The pre-announcement of a joint coordinated research call with the aim to develop more knowledge on the ecological effects of climate change and human activities in the Wadden Sea (Art. 44, WD), and
- The agreement to “promote the inclusion of cumulative aspects in decision making by taking into account the Guiding Principle and the Outstanding Universal Value” (Art. 11 WD), and

- To take “into account the cumulative effects due to increasing pressures from more intensive use of adjacent areas” (Art. 36 WD).

Via the reactive monitoring system from UNESCO’S World Heritage Convention, concerns were raised on possible effects of specific projects as well as the need for more attention on the topic of cumulative effects.

Also, 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.

Finally, EU legal requirements to assess if programmes, plans and projects 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 Directive<sup>4</sup> (2001/42/EC), the cumulative nature of the effects is among the criteria for determining the likely significance of effects. This is reinforced by the ESPOO Convention<sup>5</sup> and the Kyiv Protocol<sup>6</sup>, which require states to notify and consult on major projects with significant transboundary environmental impacts. In the EIA Directive<sup>7</sup> (2011/92/EU), the cumulation with other projects is a selection criterion to decide on a case-by-case basis if a project is subject to assessment. In the Habitats Directive<sup>8</sup> (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)<sup>9</sup> (2008/56/EC) requires Member States to assess environmental status on a regular basis (every six years), among others by identifying predominant pressures and impacts, including human activities and taking into account the main cumulative and synergistic effects.

## 2.1 Outstanding Universal Value, its key values and attributes

Values are defined by UNESCO as the reasons why a heritage place is considered globally important to be protected for present and future generations. Attributes convey and enable an understanding of those values as well as the integrity of the property. Attributes and the interactions between them are the focus of management and conservation actions<sup>10,11</sup>.

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<sup>4</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32001L0042>

<sup>5</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A21992A0424%2804%29>

<sup>6</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A22008A1119%2802%29>

<sup>7</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32011L0092>

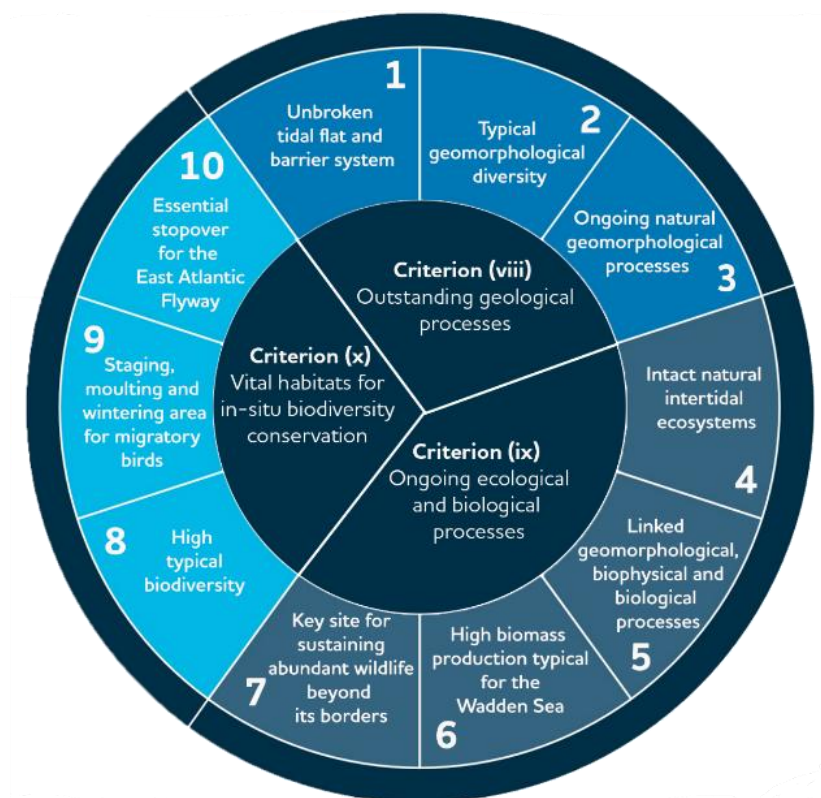
<sup>8</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A31992L0043>

<sup>9</sup> [https://ec.europa.eu/environment/marine/eu-coast-and-marine-policy/marine-strategy-framework-directive/index\\_en.htm](https://ec.europa.eu/environment/marine/eu-coast-and-marine-policy/marine-strategy-framework-directive/index_en.htm)

<sup>10</sup> UNESCO/ICCROM/ICOMOS/IUCN (2022). *Guidance and Toolkit for Impact Assessments in a World Heritage Context*. Paris, UNESCO.

<sup>11</sup> UNESCO/ICCROM/ICOMOS/IUCN (2023). *Enhancing our heritage toolkit 2.0: assessing management effectiveness of World Heritage properties and other heritage places*. Paris, UNESCO.

Values and attributes are used for assessing the possible positive or negative effects of proposed activities on the OUV of a World Heritage Site<sup>4,5</sup>. Ten OUV key values based on the Statement of Universal Outstanding Value (2014)<sup>12</sup> have been defined for the Wadden Sea World Heritage Site (Figure 2). These have been implemented nationally, on project level and trilaterally, among others, in the Climate Vulnerability Index assessment (CVI) in 2019<sup>13</sup>, in the SIMP Integrated Management Plan for ONE Wadden Sea World Heritage (2023)<sup>14</sup> and for the rapid expert assessment of impact factors and OUV in the Quality Status Reports on Energy<sup>15</sup> and Harbours and Shipping<sup>16</sup>. The sharpening of attributes is the next step for the TWSC. TG-WH will lead the process to operationalise attributes considering the ones developed in the CVI assessment (Annex 2).



**Figure 2.** The Wadden Sea World Heritage criteria and the respective ten key values derived from the criteria described in the Statement of OUV of the Wadden Sea.

## 2.2 Other natural and conservation values of relevance

Other natural and conservation values of the Wadden Sea are closely tied to the key values of the OUV.

**Scenic Beauty:** The Wadden Sea’s landscape is defined by the dynamic interplay between land and water, featuring mudflats, creeks, and tidal influences. This geological and ecological richness and natural dynamic supports diverse plant and animal life, creating

<sup>12</sup> <https://whc.unesco.org/en/decisions/6098>

<sup>13</sup> [www.waddensea-worldheritage.org/climate-vulnerability-index-cvi-phase-1-workshop-report](http://www.waddensea-worldheritage.org/climate-vulnerability-index-cvi-phase-1-workshop-report)

<sup>14</sup> [www.waddensea-worldheritage.org/simp-integrated-management-plan-one-wadden-sea-world-heritage-o](http://www.waddensea-worldheritage.org/simp-integrated-management-plan-one-wadden-sea-world-heritage-o)

<sup>15</sup> <https://qsr.waddensea-worldheritage.org/reports/energy>

<sup>16</sup> <https://qsr.waddensea-worldheritage.org/reports/harbours-and-shipping>

stunning natural sceneries and phenomena that attract both residents and visitors.

**Landscape and Culture:** Although the Wadden Sea is a natural area, it is rich in cultural heritage that spans both past and present. This heritage includes the landscapes of islands, Halligen and marshland areas, the Frisian language, traditional usage of the Wadden Sea and regional traditions. There are the scores of shipwrecks dating from Mediaeval and Early Modern Times. Archaeological features in the Cooperation area reflect the deep connection between humans and their environment in the region.

**Silence:** The Wadden Sea offers vast areas of natural silence.

**Air quality:** The natural environment of the Wadden Sea, including its clean air has been a destination for health improvement for decades.

**Water Quality:** While nutrient levels in the Wadden Sea’s coastal waters have decreased, they still exceed natural background levels. Water turbidity remains a concern, possibly exacerbated by human activities, indicating that water quality improvements are ongoing but not yet ideal.

**Darkness:** The Wadden Sea is one of Europe’s darkest regions, making it a valuable place for experiencing natural nightscapes. However, light pollution from industry, housing, and recreation poses a threat to this unique characteristic.

**Recreational Values:** The Wadden Sea supports various recreational activities like water sports and nature experience like mud flat walks. These activities are a major basis for the local economy and are compatible with conservation efforts as long as they follow regulations and established guidelines.

**Climate Change Mitigation potential:** The Wadden Sea plays a role in mitigation of climate change effects due to its natural carbon sequestration potential.

## 2.3 Study Area

The study area is the Wadden Sea World Heritage Site and its wider setting within the trilateral and national realm. The joint SEA will be undertaken in view of the site’s key values for which the site was designated. The area under investigation is determined by where the planning areas of programmes, plans or locations of projects and their spheres of likely relevant negative effects may overlap with the site. Since it is irrelevant for the assessment of these effects on the key values of the site whether the origin/ source of the impact is inside or outside, the Wider Setting must also be scanned for possibly relevant PPPs.

### The Wider Setting

The spatial range of relevant impacts can vary depending on their mode of action, different mechanisms, pathways and the exposure of the key values attributes to these impacts, e.g., disruptive effects on animal populations, contamination from exhaust gas or wastewater plumes, light pollution, etc. Therefore, it is not possible to assume a defined radius for the

delimitation of the Wider or Broader Setting here. Rather, a functional definition is given for the Wider Setting that supports the screening, i. e. answering the question of which PPPs should be included in the SEA with sufficient certainty, also taking the precautionary principle into account. It is limited, however, by the scope of national competencies to address and handle/regulate these impacts.

## 3. Policy and legal context

The policy, legal, and management frameworks that apply to the property and the wider setting, provide the context in which past, ongoing and reasonably foreseeable future programmes, plans and projects (subject of the joint SEA) have been, or are considered to be implemented.

As part of the joint SEA, and as described in Sections 4.2 (Present baseline analysis) and 4.3 (Analysis and assessment of potential impacts on the OUV), the national policy and legal context for nature conservation and management, planning and approval procedures, including environmental assessments, will be described to identify where improvements could be made in implementation. It aims in particular to strengthen the prioritisation of the conservation goals, to improve aligning the consideration of the OUV in assessment and permitting procedures at case level, to inform the SEA assessment and the resulting recommendations for future decision-making that can contribute to reducing the (cumulative) pressure on the OUV attributes and other relevant values of the Wadden Sea.

### 3.1 Nature conservation and management

The current management system of the Wadden Sea World Heritage Site is almost entirely based on EU legislation and international conventions, implemented by and complemented by national regulations. Furthermore, protection at national level forms the backbone to the protection regime for the World Heritage Site. The existing national protection and management systems (see SIMP Annex, Figs. A 3-5) are supplemented by trilaterally coordinated management, including a number of trilateral visions, strategies, and action plans (see SIMP Fig. 7). Sections 3.1 and 3.2 of the SIMP (2023) provide an overview of the management system at the trilateral and national levels.

In addition, the SOC report 2024, in particular Table 2 under Other general issues affecting the OUV, presents recent policy developments as well as the latest updates of the legal system in the Netherlands. Annex 3 of the same report contains a list of relevant climate change adaptation policies and plans at the national level for the three Wadden Sea countries.

Nature conservation and management in the wider setting for the joint SEA is, similarly as the property, governed by EU legislation, international and regional conventions, implemented and complemented by national regulations.

Annex 3 provides a preliminary list of the relevant legally binding regime for the protection and management of the site Wadden Sea World Heritage OUV, other related values and the wider setting.



## 3.2 Planning and approval procedures, including impact assessments

The planning and approval procedures for programmes, plans and projects are based on different regulations and decision-making structures in the three Wadden Sea countries. These procedures strictly follow EU and national legislation on impact assessment, including a holistic approach to potential adverse impacts including cumulative effects.

## 3.3. Cumulative effects

Environmental law systems pay attention to cumulative effects in different ways. Firstly, various international conventions, EU directives and derived national regulations impose an obligation to examine and analyse cumulative effects as part of environmental impact assessment. In the European Union, this obligation applies to environmental impact assessments at both project level and strategic level. Within the Natura 2000 regime, cumulative effects must be taken into account when assessing proposals for new plans and projects (Article 6(3) of the EU Habitats Directive).

The joint SEA will provide information on the existing and expected relevant cumulative effects on the Wadden Seas’s OUV based on the methodological approaches of the relevant EU legislation on strategic environmental assessments and Appropriate Assessment (Habitats Directive), European Court ruling, related guidance papers and the implementation practices at national level.

Cumulative effects are then the sum of past and present effects of implemented and planned activities, possibly in combination with other external pressures such as climate change<sup>17</sup>. This definition is in line with and further complements the one from the Guidance and Toolkit for Impact Assessments in a World Heritage Context: “A cumulative impact results from the environmental impacts of a project combining with the same environmental impacts of other past, existing or reasonably foreseeable future projects or activities, including those that may be enabled by the project”.

In order to operationalise the process of defining geographical areas relevant to the cumulation of effects of PPP’s “effect distance estimates” (e.g., Andersen et al., 2020<sup>18</sup>, Lamprecht & Trautner, 2007<sup>19</sup>, Uhl et al., 2018<sup>20</sup>) has to be applied for specific types of projects based on the effects on parameters relevant to the OUV (e.g., geomorphological and biological parameters) as a basis for calculating (potential) combined effects (cumulative impacts).

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<sup>17</sup> Bastmeijer, C.J., C.J.M. Philippart, P. Hoekstra, M. Schroor & P. van Beukering. (2024). *Cumulative effects in the Wadden Sea Region*. Waddenacademie Quick Scan 2024-01, Leeuwarden.

<sup>18</sup> Andersen, J. H., Bendtsen, J., Hammer, K. J., Harvey, T., Knudsen, S. W., Murray, C. J., Carstensen, J., Petersen, I. K., Sveegaard, S., Tougaard, J., Edelvang, K., Egekvist, J., Olsen, J., Vinther, M., Al-Hamdani, Z., Jensen, J. B., Leth, J. O., Kaae, B. C., Olafsson, A. S., ... Yocum, D. (2020). *ECOMAR: A data-driven framework for ecosystem-based Maritime Spatial Planning in Danish marine waters*. NIVA. NIVA Report No. 7562-2020

<sup>19</sup> Lamprecht, H. & Trautner, J. (2007). *Fachinformationssystem und Fachkonventionen zur Bestimmung der Erheblichkeit im Rahmen der FFH-VP: Endbericht zum Teil Fachkonventionen*. F+E-Vorhaben im Rahmen des Umweltforschungsplanes des Bundesministeriums für Umwelt, Naturschutz und Reaktorsicherheit im Auftrag des Bundesamtes für Naturschutz - FKZ 804 82 004, Schlussstand: Juni 2007., accuraplan H. Lamprecht, Hannover, 239 S.

<sup>20</sup> Uhl, R., Runge, H. & Lau, M. (2018). *Ermittlung und Bewertung kumulativer Beeinträchtigungen im Rahmen naturschutzfachlicher Prüfinstrumente*. Bundesamt für Naturschutz (Hrsg.). BfN-Skripten 534, 179 S.



## 4. Approach and methodology

Regarding the approach to developing the joint SEA, it is important to consider the different management approaches in the Wadden Sea countries. As mentioned in the SOC report 2024, in the Wilhelmshaven Declaration 2023, the ministers acknowledge these differences are a challenge, but these are also regarded by the Parties as an opportunity. Recognising the benefits of joining forces to meet the challenges ahead, the Parties are committed to learn 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.

A trilateral approach is being taken to develop common understandings and agreements on the methodology to develop the joint SEA. This includes the principles of the Guidance and Toolkit for Impact Assessments in a World Heritage Context<sup>21</sup> and the further improvements in the explicit integration of the OUV in impact assessments. These trilateral agreements and common understandings will be taken up in nationally developed components of the joint SEA.

In preparing the national components, the states are basing their assessment on the described methodological approach to explore aspects of the review that they consider relevant in greater depth, to provide more detail or to carry out additional assessments.

In order to operationalise the definition of the term “wider setting” a data driven approach will/must be applied. This will allow for setting up an analytic model calculating the cumulative impacts (combined effects) of the PPPs initially registered within “the wider setting” as potentially having an impact on the OUV. An example of effect distances is given by Andersen et al 2020, table 5.

To manage the concerns of time and comparability to align the nationally developed SEAs in the joint SEA, the TWSC:

- has been and will continue to be in continuous exchange to achieve agreements and common understandings,
- has sought and will continue to seek the expert advice from IUCN and WHC, 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.

The advantages of the proposed approach of conducting national components are that it unlocks existing data and information at national level and respects local differences, for example in content or national legal framework. Also, the nationally developed components of the joint SEA and the joint SEA itself can work as a strategic tool to account for and help to

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<sup>21</sup> UNESCO/ICCROM/ICOMOS/IUCN (2022). *Guidance and Toolkit for Impact Assessments in a World Heritage Context*. Paris, UNESCO.

further reduce the identified cumulative effects. The trilateral integration will allow trilateral discussion on what and where the highest ecological denominators are being used.

The methodological approach for the joint SEA is agreed at a trilateral level.

Experts will be engaged for the national components as well as for the trilateral integration into the joint SEA, in close collaboration with trilateral levels. The national components will be developed in a comparable way using corresponding methodologies, potential impacts and cumulative impacts analysis. The national components and thus the joint SEA will be based on analysis of existing information on the Wadden Sea and the wider setting. Therefore, the joint SEA will be a “desk study” and no new data is expected to be collected.

The main result of the SEA is an overview of relevant PPPs in and around the world heritage site and an assessment of their impacts on the OUV criteria. For the first time, a comprehensive assessment of possible cumulative effects on the Wadden Sea World Heritage is provided which can serve as a basis for decision making.

Furthermore, a trilateral integration will result in a joint SEA, resulting in conclusions and recommendations for further implementation and to be reported to the WHC alongside a trilateral appreciation. The national components and the overarching joint SEA report will be advised by specialists with the relevant expertise complying with Principle 6 of the UNESCO Guidance and Toolkit for Impact Assessments.

## **4.1 Programmes, plans and projects as subject to the joint SEA**

In the screening process past, ongoing and reasonably foreseeable future programmes, plans and projects are identified based on expert knowledge, which likely impact the Wadden Sea OUV and other related values in a relevant way (=relevant PPPs). The World Heritage site and the wider setting are considered. Likely relevant, direct negative impact, either individually or in combination with other PPPs on one of the sensitive attributes of the key values leads to the inclusion of the respective PPP in the SEA, regardless of their location. SEA, EIA or AA legal obligations, existing preliminary relevance assessments by the responsible authority, or if not yet available, expert opinion, informs the screening at case level. A list of PPPs inside and adjacent to the site will be based on a quick scan, which is a spatial-/temporal analysis of relevant impact mechanisms and pathways (see methodology) and focussed on the main pressures, as defined by the SIMP key topics, in a pragmatic and proportionate approach. Annex 4 of the Scoping Report lists the types of future PPPs that are currently foreseeable in the three countries. The location of the PPPs will be indicated in a (GIS based) map.

The identification at case level is done per country and focused on the five SIMP key topics. Pre-selected programmes, plans and projects will be considered in further screening. These PPPs can also contain measures to improve the situation in the Wadden Sea and therefore contribute to the safeguarding and enhancement of the OUV.

## **4.2. Present baseline analysis**

Baseline for a SEA refers to the current condition of the environment<sup>22</sup>/OUV key values and attributes, and other heritage/conservation values, both at the World Heritage property and its wider setting.

In the framework of the joint SEA for the Wadden Sea World Heritage site, the current status of the environment including existing pressures by human uses will be described and analysed based on the Quality Status Synthesis Report planned for 2024/5 and the already existing national metalevel evaluations per country. The Quality Status Thematic Reports (QSR) and TMAP parameter data from the period 2017 to 2024 will be used to produce the QSR Synthesis Report (2024/5). The metalevel evaluations per country include Natura 2000, MSFD and WFD reports produced in the last evaluation cycle (2018 to 2024). Also, the relevant information for the baseline contained in relevant appropriate assessments, environmental impact assessments, and SEAs on programmes, plans and projects in the same period will be considered (past and ongoing PPPs).

The UNESCO Guidance and Toolkit for Impact Assessments, further advises “to revisit the condition of a World Heritage property at the time of its inscription, so that subsequent changes to OUV and the property’s state of conservation can be measured, and potential vulnerabilities identified.” To further inform and identify long-term trends, the drivers behind pressures and threats, information on the state of the environment in the property (OUV) and the wider setting, will be taken from the Nomination Dossiers, SOC reports 2016 and 2024, Periodic Reporting (2014, 2023), QSRs (2009-2016), TMAP parameter data (1999-2016), EU Directive-related national assessments, relevant information for the baseline in the relevant SEAs and EIAs carried during that period as far as necessary will be consulted. In relation to the past, the question of the period under consideration thus begins in any case with the time of inscription in 2009.

The baseline will be organised as far as possible according to the ten OUV key values (Figure 2). Information gaps and uncertainties that may limit the accuracy of the baseline will be presented with recommendations on how to fill them (as recommended by UNECE 2018).

The baseline analysis in the joint SEA will:

- 1) Analyse the current state and the trends of the environment per key values as far as possible, and
- 2) Analyse the identified human induced pressures, threats and potential drivers influencing the trends including their ongoing cumulative effects as pre-effects.

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<sup>22</sup> Operational Guidelines for the implementation of the World Heritage Convention, the UNESCO Guidance and Toolkit for Impact assessments, the UNESCO Guidance for Wind Energy Projects in a World Heritage Context, EU SEA Directive and Protocol, examples from SEA in the World Heritage sites Sundarbans and Swiss Alps Jungfrau-Aletsch, and the Organization for Economic Cooperation and Development Assistance Committee (OECD-DAC) guidelines for applying strategic Environmental Assessments.

Annex 5 presents a list of the sources for baseline data in addition to Appropriate Assessments, Environmental Impact Assessments and SEAs of past and present programmes, plans and projects as far as available.

### **4.3. Analysis and assessment of potential impacts on the OUV**

#### **4.3.1. Analysis of potential impacts**

Fisheries, tourism, shipping/ports, energy and coastal protection are important socio-economic factors in the region identified as the five SIMP key topics. These activities not only contribute to creating and preserving jobs in the region, but also provide regional food security and energy supplies, they also protect the local populations and the landscape from coastal flooding and erosion and play an important role in maritime trade and transport. Nevertheless, the Statement of OUV identifies these as key threats requiring ongoing attention. Human uses within the Wadden Sea World Heritage Site and the surrounding area are regulated through existing legal regimes. However, stressors from the five SIMP key topics mentioned above (can) interact and combine over time in an area, both with each other and with likely climate change effects, causing cumulative impacts on the marine environment from inside and outside the site. Assessment and management of cumulative effects require cross-sectoral and interdisciplinary consideration and exchange<sup>23</sup>.

For the joint SEA, the potential impacts on the OUV associated with the implementation of the programmes, plans and projects will be identified. The identification of potential impacts will reflect the likely interaction between the selected programmes, plans and projects focussed on the SIMP five key topics and the OUV key values, attributes and other values.

The analysis of the identified impacts will include the origin (inside or outside the property), the type of impact, the extent and severity of the impacts on the OUV attributes of the Wadden Sea and other values. Annex 6 presents preliminary rapid expert assessment matrixes of potential impacts used in Quality Status Reports on Energy<sup>24</sup> and Harbours and Shipping<sup>25</sup> for those two SIMP key topics and will be further extended to all other SIMP key topics. The methodology and visualisation used for the rapid assessment is based on the UNESCO Periodic Reporting, adapted by the additional use of a traffic light colour and symbols<sup>26</sup>. In the SEA these will evolve and be more detailed, potentially also including interrelationships between attributes (Principle 9, together with the next heading).

#### **4.3.2 Cumulative impacts analysis and assessment**

In the SOC report 2024, the three Wadden Sea countries acknowledged the need to continue developing general knowledge on cumulative and combined effects of both likely known

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<sup>23</sup> [www.waddensea-worldheritage.org/simp-integrated-management-plan-one-wadden-sea-world-heritage-o](http://www.waddensea-worldheritage.org/simp-integrated-management-plan-one-wadden-sea-world-heritage-o)

<sup>24</sup> <https://qsr.waddensea-worldheritage.org/reports/energy>

<sup>25</sup> <https://qsr.waddensea-worldheritage.org/reports/harbours-and-shipping>

<sup>26</sup> [www.waddenacademie.nl/fileadmin/inhoud/pdf/04-bibliotheek/2014Waddenmonitoring\\_in\\_the\\_spotlight.pdf#:~:text=Waddenacademie%20and](http://www.waddenacademie.nl/fileadmin/inhoud/pdf/04-bibliotheek/2014Waddenmonitoring_in_the_spotlight.pdf#:~:text=Waddenacademie%20and)

relevant climate change and human use effects. The Wadden Sea countries also agreed that the joint SEA should be methodologically based on EU legislation as the commonly implemented framework and that it will be in line with the principles of the UNESCO Guidelines and toolkit for Impact Assessment in a World Heritage Context. The assessment of cumulative effects within the joint SEA should improve the holistic consideration of World Heritage issues in an ecosystem approach by the relevant authorities, provide better insight at the management level, and subsequently support discussions on the implementation of the results in the national context and allow for a trilateral learning experience on policy alignment on cumulative effects (Principle 11 from UNESCO guidelines 2022). The nationally developed components of the joint SEA and the joint SEA itself can serve as a strategic tool to better address and further reduce identified cumulative impacts.

For the joint SEA, the assessment of cumulative impacts will consider the combined relevant pre-effects of past and ongoing (baseline pressures and threats) programmes, plans and projects to analyse the current degree of cumulative pressure on the ecosystem, specifically on the OUV key values.

In this context, the assessment will consider the various dynamics of cumulative impacts, recognising that they can manifest in different ways. Cumulative effects can be purely additive in nature, i.e. the simple sum of all impacts; they can neutralise each other, generate positive or negative synergies or create indirect interactions elsewhere in the system, the sum of which can exceed that of simple addition. Many cumulative effects have built up over a long period of time, so that their relevance already in the baseline analysis is reflected as pressures and trends verbally-analytically. These effects are not only caused by the implementation of programmes, plans and projects (requiring authorisation), but can also arise due to other (human) activities and influences, as well as due to the interaction with “natural” processes going on in the Wadden Sea, e.g. sediment transport and tidal water movements.

Cumulative impact prediction involves identifying<sup>27</sup>:

- a) The total impacts on a resource that result from different components of a plan or project (intra-plan or intra-project impacts); and
- b) the total impacts of a plan or project in interaction with those of other human activities (inter-plan, inter-project impacts)

For the joint SEA, there is the additional factor:

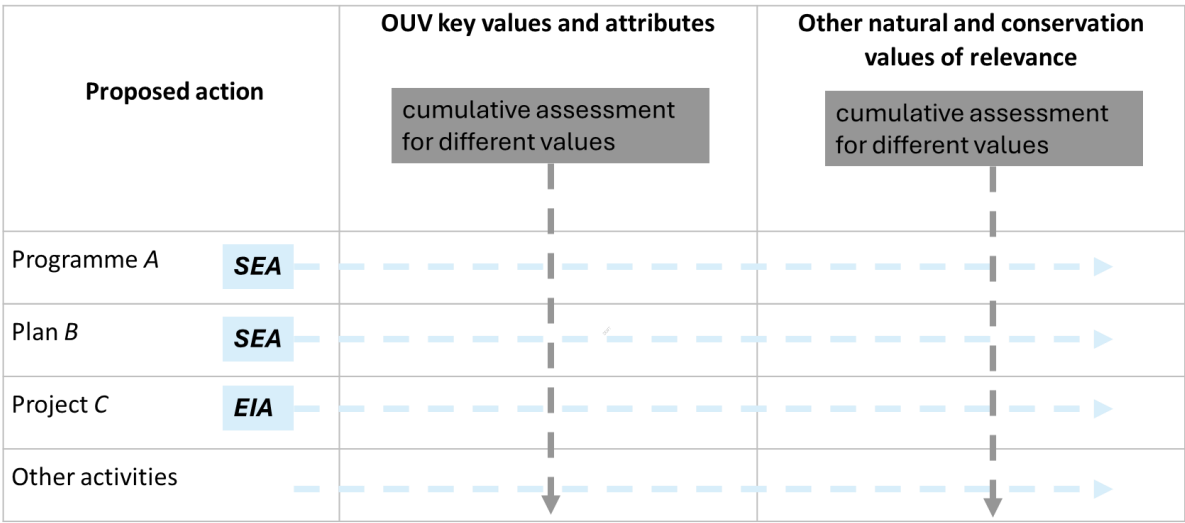
- c) The total impacts of all environmentally relevant programmes, plans and projects in interaction with other selected human activities on the OUV in the specified area of the World Heritage property.

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<sup>27</sup> Therivel, R. & Ross, B. (2007). Cumulative effects assessment: Does scale matter? *Environmental Impact Assessment Review*. Volume 27, Issue 5: 365-385. <https://doi.org/10.1016/j.eiar.2007.02.001>

Rather than focussing on the impacts of a programme, plan or project, a cumulative impact assessment focuses on the receiving environment and considers all impacts on a protected value (e.g. OUV key value, attribute), i.e. similar impacts in a functional context. These impacts can be both positive and negative in nature. When combining positive and negative impacts, particular attention would be paid to maintain methodological transparency so that the analysis and evaluation do not result in significant problems being obscured or overlooked.

Figure 3 illustrates the relationship between SEAs and EIAs for individual programmes, plans, and projects, and the cumulative assessments that can be performed for each of the OUV key values, attributes and other natural and conservation values of relevance.



**Figure 3.** Schematics of the relationship between SEAs and EIAs for individual programmes, plans, projects, and other human activities, and cumulative assessments for the Wadden Sea values. Adapted for the Wadden Sea from Therivel & Ross, 2007<sup>28</sup>.

In addition to PPPs that are subject to mandatory testing from a legal perspective, other activities should also be included if they may be relevant to the state of the environment. In this context, widespread, sometimes diffuse impacts, caused for example by fishing activities, commercial shipping or leisure activities such as water sports or areas frequented by people at beaches or tidal flats, etc., need to be considered. These would be included in the baseline analysis and in the analysis and evaluation as trends in future scenarios.

The level of detail of the protected values can be the qualitatively defined attributes of the OUV key values, as developed for the trilateral Climate Vulnerability Index CVI (see Annex 2), since it is essential to maintain the ecological systemic context<sup>29</sup>. With very few exceptions

<sup>28</sup> Therivel, R. & Ross, B. (2007). Cumulative effects assessment: Does scale matter? Environmental Impact Assessment Review. Volume 27, Issue 5: 365-385. <https://doi.org/10.1016/j.eiar.2007.02.001>  
<sup>29</sup> Jones, C. (2016). Cumulative effects assessment: theoretical underpinning and big problems. Environmental Reviews. Volume 24, Number 2: 187-204. <https://doi.org/10.1139/er-2015-0073> AND Therivel, R. (2010). Strategic Environmental Assessment in Action. 2nd Edition. Routledge. 384p.

in the OSPAR, MSFD or WFD context, there are no trilaterally or nationally agreed thresholds for the state of these attributes.

With regard to transboundary impacts, those types of programmes, plans, projects and environmental influences will be identified which, by their very nature, have long-range transboundary impacts (in this case, on the trilateral area), also from a cumulative perspective.

In the case of the cumulative assessment, a logical tiering between the different levels of concretisation from programme-plan-project will be applied, in order to avoid duplicate assessments of the same (not to be confused with similar!) impacts on an OUV key value.

For the implementation of the joint SEA, analysis, forecasting, and assessment techniques should be chosen for their efficiency, ensuring they achieve the objectives with minimal resource and personnel expenditure, measured against the objective of the joint SEA. It will be key to use the appropriate scale and resolution levels (temporal, spatial, content-related detailing) when predicting cumulative effects.

The SEA will, to the greatest extent possible, be based on data-driven analysis/models ensuring both the professional quality and possibility of re-creation of results as well as a transparent approach for the benefit of stakeholders and the public. This does also apply to the assessment of cumulative impacts/combined effects. It is important that the SEA distinguishes between proven cumulative effects and (expert judgment based) assumptions on cumulative effects.

The SEA prediction, analysis and evaluation techniques may include:

- ‘Expert judgement’, also involving informed stakeholders
- Risk-based analysis of cause-effect chains related to the OUV key values, e.g. as a matrix / relationship diagram
- Overlay or constraints maps, e.g. overlay of impact zones
- GIS applications
- Alternative future scenario analysis, also GIS-supported
- Multi-criteria analysis and evaluation for summarising the overall result

A comparative analysis of future scenarios (perspective: 2050) can be considered, if feasible, to analyse and evaluate the advantages and disadvantages of the cumulative impacts of individual scenarios on the key values of the OUV and their attributes.

This will create a factual basis to argue whether measures for nature and environmental conservation, restoration and improvement measures alone (for example WFD, MSFD, Natura 2000, NRR and related international agreements) are sufficient to maintain or enhance the OUV, and to evaluate the consequences of the execution of all reasonably foreseeable planned human uses on the OUV. It will also assess whether all these combined



measures can prevent a net loss of key values in the future and identify which fields need more or less action. Such an analysis can explore the conservation measures contained within the present EU protection regime. This would potentially also include best practices, restoration and innovative conservation. Obligatory mitigation and compensation, for example due to the EU Habitat Directive, are considered as integrated part of each programme, plan or project. Climate change is included in all scenarios.

**Table 1.** *Future Scenarios for 2050 building on the Baseline (current state of the environment, including past and current PPPs, pressures and trends since 2014).*

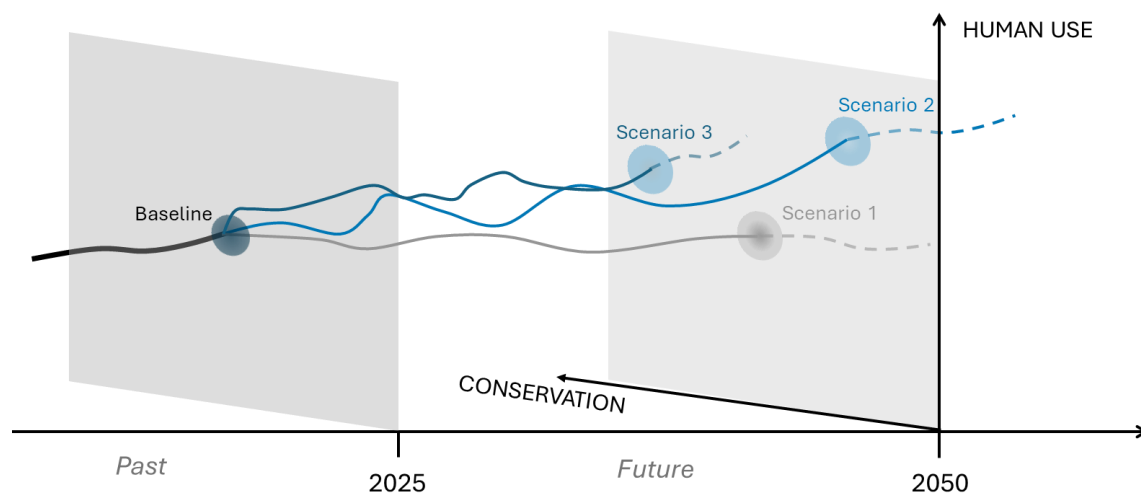
Scenario	Description
<b>Scenario 1:</b> Reference	No new human use activities are introduced, existing pressures and trends from the baseline continue unchanged.
<b>Scenario 2:</b> Projected Development	All reasonably foreseeable future human use activities (incl. PPPs) are implemented without foreseeable conservation measures (WFD, MSFD, Natura 2000, NRR).
<b>Scenario 3:</b> Regulated Development	All reasonably foreseeable future human use activities (incl. PPPs) are implemented, along with foreseeable conservation measures (WFD, MSFD, Natura 2000, NRR).

As presented in the 2024 SOC<sup>30</sup>, recent publications by the Dutch 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. These detailed analyses plead for a specific fourth scenario within the Dutch context focusing on additional conservation measures needed in order to maintain the OUV.

In the German and Danish<sup>31</sup> context, the OUV is covered via existing legal frameworks, such as the MSFD, the Birds- and Habitat Directives and National Park Laws, etc., hence three scenarios can be sufficient. In parallel, further investigations on a possible fourth scenario are needed. A fourth scenario would build on Scenario 3 by explicitly incorporating the OUV, including enhanced conservation, restoration, and innovative environmental measures.

<sup>30</sup><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](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)

<sup>31</sup> <https://mim.dk/media/zqknzk1p/indsatsprogram-2024.pdf>



**Figure 4.** Diagram illustrating scenarios that build on the baseline, incorporating past and present conditions, and projecting plausible future pathways for the Wadden Sea.

## 5. Description of the SEA process

The process is steered by the trilateral Task Group World Heritage, especially the SEA subgroup. The national components of the SEA and the integration into joint SEA will be developed by independent experts with the relevant expertise as described in Principle 6 of the UNESCO Guidelines and Toolkit for Impact Assessment.

### 5.1 Steps to develop the joint SEA

The steps to develop the SEA adapted for the Wadden Sea are (advised by the Netherlands Commission on Environmental Assessment (NCEA):

- 1) **Screening and preparation:** setting the boundaries  
Result: Starting document, collation and selection of programmes, plans and projects to be subject of the joint SEA.
- 2) **Scoping:** determine the content of the SEA, including stakeholder consultation.  
Result: Scoping report.
- 3) **Conducting the SEA study:** development of national components and joint SEA.  
Result: draft joint SEA report.
- 4) **Review the draft joint SEA** by NCEA, UNESCO/IUCN and stakeholder consultation.  
Result:
  - (i) Advisory review report by NCEA;
  - (ii) Review report by UNESCO/IUCN and
  - (iii) Response to stakeholder’s input.
- 5) **Finalisation of SEA study.**  
Result: Final joint SEA report
- 6) **Approval/ adoption** of joint SEA by TWSC/WSB and WHC/IUCN

### 5.2 Stakeholder engagement and communication

In agreement with Principle 8 of the UNESCO Guidance and Toolkit for Impact Assessment and the World Heritage Committee’s strategic objective to enhance the role of communities in the implementation of the World Heritage Convention, stakeholders in the Wadden Sea are engaged throughout the process.

Stakeholder consultation is an established practice in each of the Wadden Sea countries. The existing stakeholder groups are involved according to their respective processes. The same procedure was followed for, for example, The SIMP, and this is the procedure for consultation on Ministerial Declarations.

In addition, representatives of the trilateral Wadden Sea Team of environmental NGOs, who act as advisors to the WSB, have been involved in the stakeholder engagement for the joint SEA since the scoping phase.

### **5.3 Tasks for the terms of reference to conduct the SEA study**

The national and trilateral SEA processes require continuous exchange and close coordination, as well as stakeholder consultation and integration of suggestions.

The independent expert is expected to accompany the development of the national SEA components and to align and integrate the components to develop the overarching report - the joint SEA. Specific tasks include the following:

- in-depth review of existing SEA methodologies, with particular reference to the assessment of cumulative effects.
- definition of the wider setting including effect distances or ranges.
- description for the baseline the current state and the trends of the environment per key value as detailed as possible, as well as analyse the identified human induced pressures, threats and likely drivers influencing these trends.
- completion of the list of PPPs in a coherent way for all countries (Annex 4).
- description and analysis of known impacts and cumulative effects of past and ongoing programmes, plans and projects on the OUV key values, attributes and other values.
- Assessment of potential cumulative impacts considering the combined effects of past, ongoing (baseline pressures and threats) and future PPPs by outlining scenarios.
- description of difficulties, gaps and uncertainties identified throughout the assessment.
- integration the national components in the trilateral joint SEA and draw conclusions and recommendations in relation to the OUV.
- based on the analysis and assessments, identify potential improvements and provide recommendations to support reducing known cumulative effects, strengthen the prioritisation of the conservation goals, to improve alignment of the consideration of the OUV in assessment and permitting procedures at case level, and to inform the assessment and the resulting recommendations for improving the consideration of cumulative effects in future decision making.

### **5.4 Preliminary timeline**

Recommendations resulting from the joint SEA would be integrated in the management system in accordance with Principle 11 of the UNESCO Guidance and Toolkit for Impact Assessment. Preliminary results are expected to be presented at the Governmental Council during the Trilateral Governmental Conference in spring 2026 and, if possible, incorporated into the 2026 Ministerial Declaration. The final results in 2027 will inform the next Ministerial Declaration, the SIMP review cycle, and specific trilateral strategies, action plans, and roadmaps. Additionally, they will inform and support national-level discussions on implementation and foster trilateral learning on policy alignment for cumulative effects.

The following preliminary timetable is proposed:

Date	Activity
August 2024 March 2025	Development of the draft Scoping Report for the joint SEA by SEA Subgroup, the TG-WH with stakeholder engagement from the advisors from the environmental NGOs.
31 March 2025	Draft Scoping Report, backed by WSB submitted to WHC and IUCN for review.
In 2025	Stakeholder consultation, expert review, integration of comments and start of SEA study.
Throughout 2026	Development of SEA study: national components and integration into draft joint SEA.
In 2027	Review of the draft joint SEA (including stakeholder engagement with WHC and IUCN).
2027-Finalisation	Integration of feedback from stakeholder engagement, WHC and IUCN review, and NCEA advice, leading to the final joint SEA.

# Annexes

## Annex 1. Glossary (in alphabetical order)

**Other heritage/conservation values.** In the context of the Guidance and toolkit for impact assessments in a world heritage context (UNESCO, ICCROM, ICOMOS, IUCN 2022), these are heritage/conservation values that a property may have in addition to Outstanding Universal Value. They may include the reasons behind the designation of a World Heritage property as being of national or local heritage/ nature conservation importance, and Indigenous values attributed to the property. They may also include other aspects of the place which, while not sustaining OUV, are nevertheless of aesthetic, historic, scientific, social or other value.

**Scoping.** Scoping identifies the issues that are considered to be important enough for planning and decision-making to be included in an Environmental and Social Impact Assessment and eliminates or limits consideration of those issues that are of little or no concern. It allows an impact assessment to focus on important issues and to avoid wasting time and resources on unnecessary investigations. Scoping is a process that occurs early in an Environmental and Social Impact Assessment, usually after screening. It normally occurs during prefeasibility studies when the nature and scope of a project is being developed at a fairly high level with little or no detail. Thus, scoping is generally a qualitative assessment of potential environmental risks and impacts (while a subsequent impact assessment is more quantitative). Typically, the scoping process results in a document designed to direct the conduct of an EIA study (or SEA study). This document can take various forms, and have various names, in different impact assessment systems, e.g. Initial Environmental Examination, Scoping Report, Environmental and Social Impact Assessment Guidelines, Terms of Reference, and Project Brief (UNESCO, ICCROM, ICOMOS, IUCN 2022).

**Cumulative impacts.** A cumulative impact results from the environmental impacts of a project combining with the same environmental impacts of other past, existing or reasonably foreseeable future projects or activities, including those that may be enabled by the project (UNESCO, ICCROM, ICOMOS, IUCN 2022).

**PPPs.** Programmes, plans and projects

**QSR.** Quality Status Report

**TMAP.** Trilateral Monitoring and Assessment Programme

**TWSC.** Trilateral Wadden Sea Cooperation

**TG-WH.** Task Group World Heritage

**WSB.** Wadden Sea Board

## Annex 2. Wadden Sea OUV key values and attributes

*The Wadden Sea key values and attributes (derived from the Statement of Outstanding Universal Value by the Trilateral Task Group World Heritage).*

Statement of OUV – Criteria	10 OUV key values	Attributes defined in the Climate Vulnerability Index workshop
<b>Criterion (viii) – to be outstanding examples representing major stages of earth's history, including the record of life, significant on-going geological processes in the development of landforms, or significant geomorphic or physiographic features;</b>		<b>Criterion (viii): Outstanding geological processes</b>
The Wadden Sea is a depositional coastline of unparalleled scale and diversity.	1. Unbroken tidal flat and barrier system	1a. Extent and distribution of mud flats, sand shoals, and barrier islands
It is distinctive in being almost entirely a tidal flat and barrier system with only minor river influences and an outstanding example of the large-scale development of an intricate and complex temperate-climate sandy barrier coast under conditions of rising sea-level.	2. Typical geomorphological diversity	2a. Barrier islands (incl. ongoing forming or erosion of island/sand banks) 2b. Tidal flats, gullies, channels, ebb-tidal deltas 2c. Sub-tidal shoals 2d. Sand dunes, beaches
Highly dynamic natural processes are uninterrupted across the vast majority of the property, creating a variety of different barrier islands, channels, flats, gullies, saltmarshes and other coastal and sedimentary features.	3. Ongoing natural geomorphological processes	3a. Geomorphological processes (e.g. sediment movement by waves, current and wind), accretion/sedimentation patterns, erosion)
<b>Criterion (ix) – to be outstanding examples representing significant ongoing ecological and biological processes in the evolution and development of terrestrial, fresh water, coastal and marine ecosystems and communities of plants and animals;</b>		<b>Criterion (ix): Ongoing ecological and biological processes</b>
The Wadden Sea includes some of the last remaining natural large-scale intertidal ecosystems, where natural processes continue to function largely undisturbed.	4. Intact natural intertidal ecosystems	4a. Estuaries, tidally influenced transition zones 4b. Coastal wetlands (e.g. saltmarshes, beaches and dunes) [see also 8c]
Its geological and geomorphologic features are closely entwined with biophysical processes and provide an invaluable record of the ongoing dynamic adaptation of coastal environments to global change. There are a multitude of transitional zones between land, sea and freshwater that are the basis for the species richness of the property.	5. Linked geomorphological, biophysical and biological processes	5a. Numbers and distribution of species typical for Wadden Sea ecosystems (e.g., species adapted to salt marshes or wet dunes, sediment gradient of tidal flats). 5b. Ecological processes (e.g. primary production, predation, particle feeding, recruitment, connectivity) 5c. Bio-geomorphological interactions (e.g. eelgrass meadows slow down flow, trap suspended particles, raising the seabed, mussel beds. Seabed reworking by infauna changes the sedimentary composition)



The productivity of biomass in the Wadden Sea is one of the highest in the world, most significantly demonstrated in the numbers of fish, shellfish and birds supported by the property.	6. High biomass production typical for the Wadden Sea	6a. Fish stocks <i>[see also 7c]</i> 6b. Birds <i>[see also 7a &amp; 8d]</i> 6c. Filter feeders (e.g. shellfish, mussels) 6d. Suspension feeders (e.g. sandworms/ lugworms - <i>largest worm population</i> worldwide) 6e. Productivity (high bacterial remineralization, strong import of organic matter, high microphytobenthos production)
The property is a key site for migratory birds and its ecosystems sustain wildlife populations well beyond its borders.	7. Key site for sustaining abundant wildlife beyond its borders	7a. Migratory birds <i>[see also 9a-9c]</i> 7b. Marine mammals (e.g. common harbour seal, grey seal, harbour porpoise) 7c. Diadromous fish (e.g. flounder, smelt, eel)
<b>Criterion (x) – to contain the most important and significant natural habitats for in-situ conservation of biological diversity, including those containing threatened species of outstanding universal value from the point of view of science or conservation.</b>	<b>Criterion (x): Vital habitats for in-situ biodiversity conservation</b>	
Coastal wetlands are not always the richest sites in relation to faunal diversity, however this is not the case for the Wadden Sea. The salt marshes host around 2,300 species of flora and fauna, and the marine and brackish areas a further 2,700 species, and 30 species of breeding birds.	8. High typical biodiversity	8a. Subtidal fauna/flora (e.g. shrimp, fish, sponges, tunicates, harbour porpoise) 8b. Intertidal fauna/flora (e.g. crabs, mussels, oysters, seagrass) 8c. Dunal fauna/flora (e.g. saltmarsh, grassland, Kentish Plover, Little Tern, Snow Bunting) 8d. Important bird breeding areas (e.g. Eurasian Spoonbill, Avocet, Gull-billed Tern, Sandwich Tern) <i>[see also 6b, 10a &amp; 10b]</i>
The clearest indicator of the importance of the property is the support it provides to migratory birds as a staging, moulting and wintering area. Up to 6.1 million birds can be present at the same time, and an average of 10-12 million each year pass through the property.	9. Staging, moulting and wintering area for migratory birds	9a. Staging areas (e.g. important for Bar-tailed Godwit, Grey Plover) <i>[see also 7a &amp; 10a]</i> 9b. Moulting areas (e.g. important for Common Shelduck, Common Eider and Common Scoter) <i>[see also 7a &amp; 10a]</i> 9c. Over-wintering areas (e.g. important for Great Ringed Plover, Dunlin, Herring Gull, Redshank) <i>[see also 7a &amp; 10a]</i>
The availability of food and a low level of disturbance are essential factors that contribute to the key role of the nominated property in supporting the survival of migratory species. The property is the essential stopover that enables the functioning of the East Atlantic and African-Eurasian migratory flyways. Biodiversity on a worldwide scale is reliant on the Wadden Sea.	10. Essential stopover for the East Atlantic Flyway	10a. Food availability and quality for migratory birds

### Annex 3. Preliminary list of the relevant legally binding regime for the protection and management of the site Wadden Sea World Heritage OUV, other values and the wider setting.

Name	Date	Links	Short summary
<b>NETHERLANDS</b>			
<b>Omgevingswet</b>	2024	<p><u><a href="https://wetten.overheid.nl/BWBR0037885/2024-01-01#Hoofdstuk4">Omgevingswet:</a></u>  <a href="https://wetten.overheid.nl/BWBR0037885/2024-01-01#Hoofdstuk4">https://wetten.overheid.nl/BWBR0037885/2024-01-01#Hoofdstuk4</a></p> <p>Environmental Decree:  <a href="https://wetten.overheid.nl/BWBR0041278/2024-05-07#Hoofdstuk6">https://wetten.overheid.nl/BWBR0041278/2024-05-07#Hoofdstuk6</a></p> <p>Living Environment Activities Decree:  <a href="https://wetten.overheid.nl/BWBR0041330/2024-05-07">https://wetten.overheid.nl/BWBR0041330/2024-05-07</a></p> <p>Environmental Regulation:</p>	<p>In January 2024, 26 Dutch legislations (including the Water Act, the Spatial Planning and Nature Conservation Act) have been included in the Environment and Planning Act (Dutch: Omgevingswet).</p> <p>The most important rules in the Act have been elaborated in 4 decrees:</p> <ol style="list-style-type: none"> <li>1. Environment decree (Omgevingsbesluit)</li> <li>2. Environment Buildings Decree (Besluit bouwwerken leefomgeving)</li> <li>3. Environmental Quality Decree (Besluit kwaliteit leefomgeving)</li> <li>4. Environmental Activities Decree (Besluit activiteiten leefomgeving)</li> </ol> <p>Finally, there is the Environmental regulation (Omgevingsregeling, Or). This describes how the laws must be implemented.</p>
<b>GERMANY</b>			
<b>National</b>			
<b>Federal Nature Conservation Act</b>	2009	<u><a href="https://www.gesetze-im-internet.de/bnatschg_2009/BNatSchG.pdf">https://www.gesetze-im-internet.de/bnatschg_2009/BNatSchG.pdf</a></u>	The Federal Nature Conservation Act is a federal framework act for nature conservation which includes provisions for the establishment of nature reserves and National Parks. Main habitats of the Wadden Sea are, amongst others, legally protected by § 30 of the Federal Nature Conservation Act. Actions that could lead to the destruction or other significant adverse effects are prohibited.
<b>Navigation Ordinance</b>	1992, last amended 2023	<u><a href="https://www.gesetze-im-internet.de/nordsbefv/BJNR0710A0023.html">https://www.gesetze-im-internet.de/nordsbefv/BJNR0710A0023.html</a></u>	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).
<b>Gesetz über die Umweltverträglichkeitsprüfung (UVPG)</b>		<u><a href="https://www.gesetze-im-internet.de/uvpg/">https://www.gesetze-im-internet.de/uvpg/</a></u>	
<b>Schleswig-Holstein</b>			
<b>Landesnaturschutzgesetz (LNatschG)</b>	2010, amended 2022	<u><a href="https://www.gesetze-rechtsprechung.sh.juris.de/bssh/docu/ment/jlr-NatSchGSH2010rahmen">https://www.gesetze-rechtsprechung.sh.juris.de/bssh/docu/ment/jlr-NatSchGSH2010rahmen</a></u>	Gesetz zum Schutz der Natur (Landesnaturschutzgesetz - LNatschG). The implementation of the Federal Nature Conservation Act (BNatschG) in the legal framework of the federal state of Schleswig-Holstein is given within the Landesnaturschutzgesetz (LNatschG), last revised in 2022. The LNatschG gives the legal framework for establishing protected parts of nature and landscape. Before the

			establishment of the “Nationalpark Schleswig-Holsteinisches Wattenmeer” areas had already been protected as nature reserves. Designation and protection of “Natura 2000” areas is regulated within section II of the LNatSchG.
<b>National Park Act Schleswig-Holstein</b>	1999, amended 2023	<a href="https://www.gesetze-rechtsprechung.sh.juris.de/bssh/document/jlr-NParkGSH1999V6P3">https://www.gesetze-rechtsprechung.sh.juris.de/bssh/document/jlr-NParkGSH1999V6P3</a>	Gesetz zum Schutze des schleswig-holsteinischen Wattenmeeres (Nationalparkgesetz - NPG). In 1999 the amended state law (Act for protection of the Wadden Sea of Schleswig Holstein, National Park Act, NPG) came into effect. The protection purpose is to protect the Wadden Sea and its natural development. Natural processes shall be permitted to take place as unimpededly as possible. The National Park shall be conserved as a habitat for the plant and animal species that occur in it naturally, as well as for the relationships occurring between such species and their habitats. Nature in its entirety, including its natural development, and including all plants, animals and ecosystems, has a value in itself and must be protected as such (NPG; 1999).
<b>State planning programme</b>	last update 2023	<a href="https://www.schleswig-holstein.de/DE/fachinhalte/L/landesplanung/allgemein/landesplanung_aufgaben_instrumente_raumordnungsplaene.html?nn=abe03b36-ce7f-4acd-b470-e73ebcf936fe">https://www.schleswig-holstein.de/DE/fachinhalte/L/landesplanung/allgemein/landesplanung_aufgaben_instrumente_raumordnungsplaene.html?nn=abe03b36-ce7f-4acd-b470-e73ebcf936fe</a>  Spatial development plans per region in Schleswig-Holstein: <a href="https://www.schleswig-holstein.de/DE/landesregierung/themen/planen-bauen-wohnen/landesplanung/raumordnungsplaene/raumordnungsplaene_node.html">https://www.schleswig-holstein.de/DE/landesregierung/themen/planen-bauen-wohnen/landesplanung/raumordnungsplaene/raumordnungsplaene_node.html</a>	<p>As an ‘umbrella plan’, the state development plan contains standardised state-wide framework specifications. The regional plans are developed from the state development plan, concretise the specifications and take into account the regional characteristics of the various planning areas. Spatial development plans set out objectives and principles for spatial development. Spatial planning objectives are binding requirements. They are finally weighed up by the spatial planning authority and laid down as binding in the text or map of the spatial development plan. They must be observed by all public bodies when carrying out spatially relevant planning and measures. Urban land-use planning must be adapted to the objectives of spatial planning.</p> <p>Spatial planning principles are specifications for subsequent consideration or discretionary decisions. They must be taken into account by public planning authorities when weighing up the various options. Spatial development plans indicate whether they are a spatial planning objective that must be observed or a spatial planning principle that must be taken into account when weighing up the options.</p> <p>The spatial development plans represent the desired spatial structure for the country and the respective planning areas. Among other things, they define settlement development, for example settlement axes, and the structure of open spaces as well as locations or routes that are to be secured for infrastructure. Important instruments include the designation of priority, reserved and suitable areas, for example for wind energy, water protection or nature and recreation. Priority areas are areas that are designated for certain spatially significant functions or uses. Other spatially significant uses are excluded there if they are not compatible with the prioritised functions or uses.</p>
<b>Water Law</b>	1960 last update 2024	<a href="https://www.gesetze-rechtsprechung.sh.juris.de/bssh/document/jlr-WasGSH2020rahmen">https://www.gesetze-rechtsprechung.sh.juris.de/bssh/document/jlr-WasGSH2020rahmen</a>	The law regulates all issues relating to water management in Schleswig-Holstein, from groundwater protection and coastal protection to wastewater management
<b>Landesgesetz über die Umweltverträglichkeitsprüfung (Landes-UVP-Gesetz - LUVPG)</b>		<a href="https://www.gesetze-rechtsprechung.sh.juris.de/perma?j=UVP_GH_SH">https://www.gesetze-rechtsprechung.sh.juris.de/perma?j=UVP_GH_SH</a>	

Lower Saxony			
<b>Niedersächsisches Ausführungsgesetz zum Bundesnaturschutzgesetz (NAGBNatSchG)</b>	2010	<a href="https://voris.wolterskluwer-online.de/browse/document/70a32f43-7c25-3e5e-944f-bdd967305111">https://voris.wolterskluwer-online.de/browse/document/70a32f43-7c25-3e5e-944f-bdd967305111</a>	The regional development plans consist of a text section and a map. An environmental report describes and assesses the likely significant effects that the implementation of the plans will have on the environment.
<b>National Park Act Niedersachsen</b>	2010, amended 2022	<a href="https://voris.wolterskluwer-online.de/browse/document/2c3161b9-48fa-3d3f-a43a-d9b0eaf1c319">https://voris.wolterskluwer-online.de/browse/document/2c3161b9-48fa-3d3f-a43a-d9b0eaf1c319</a>	<p>The National Park was first established by statutory order in 1986. The first State Act on the protection of the area as a National Park was introduced in 1999. The legal framework regarding the boundaries and protection zones today is set within the Act on the National Park “Wadden Sea of Lower Saxony” of July 2001 (NWattNPG 2010). In total an area of approximately 345.000 ha is currently declared as National Park. (A&amp;W and Bioconsult 2023).</p> <p>The Lower Saxony Wadden Sea National Park is divided into three zones, in which different activities are allowed or prohibited. The inhabited islands, except for the villages, are part of the National Park. A second major amendment in 2010 extended the area of the National Park to include large parts of the offshore belt. The full legal protection regime for the core zone (Zone I) applies for the extension area well. Cockle fishery, as a ground damaging activity, has not been carried out since 1992.</p>
<b>State planning programme</b>	1994 last updated 2022	<a href="https://www.ml.niedersachsen.de/lrop/neubekanntmachung-der-lrop-verordnung-2017-158596.html">https://www.ml.niedersachsen.de/lrop/neubekanntmachung-der-lrop-verordnung-2017-158596.html</a> <a href="https://voris.wolterskluwer-online.de/browse/document/59c1b282-77c0-30e7-89f9-de515f831160">https://voris.wolterskluwer-online.de/browse/document/59c1b282-77c0-30e7-89f9-de515f831160</a>  GIS data: <a href="https://sla.niedersachsen.de/raumordnung/FIS-RO/?#217838@7.29363/53.67861r0@EPSG:25832">https://sla.niedersachsen.de/raumordnung/FIS-RO/?#217838@7.29363/53.67861r0@EPSG:25832</a>	<p>Landes-Raumordnungsprogramm (LROP) <a href="https://www.ml.niedersachsen.de/lrop/landes-raumordnungsprogramm-niedersachsen-5062.html">https://www.ml.niedersachsen.de/lrop/landes-raumordnungsprogramm-niedersachsen-5062.html</a></p> <p>The State Spatial Development Programme (LROP) is the spatial development plan for the state of Lower Saxony. The LROP is based on an ordinance from 1994, has been updated several times since then, was published again in 2008 and 2017 and was last amended in 2022.</p> <p>With binding statements on spatially significant uses (settlements, transport routes, raw material extraction, etc.) and their development, the LROP serves to harmonise the often conflicting economic, social, cultural and ecological interests in the area. It thus represents the planning concept for sustainable regional development.</p> <p>The LROP comprises a so-called ‘descriptive presentation’ with textual specifications and a ‘graphic presentation’ (map at a scale of 1 : 500,000).</p> <p>The descriptive presentation of the programme is divided into four sections:</p> <p>Section 1 contains the objectives and principles for the development of the state and its sub-regions, for the integration of the state into the North German and European development, for the integrated development of the coast, the islands and the sea and for the development of the areas in the Bremen / Lower Saxony integration areas.</p> <p>Section 2 contains regulations on the development of settlement structures, in particular on the topics of settlement development, location functions, the development of services of general interest and central locations (regional and medium-sized centres) and the development of retail supply structures.</p> <p>Section 3 contains regulations on the development of open space structures and open space</p>

			<p>utilisation, in particular in the areas of soil protection, nature and landscape, agriculture / forestry / fisheries, recreation, securing and extracting raw materials and water management.</p> <p>Section 4 sets out regulations on the development of technical infrastructure and spatial-structural location potential with objectives and principles of spatial planning for mobility / transport / logistics, sea and inland ports as well as port-oriented facilities, energy generation and transport, contaminated sites and waste disposal facilities.</p>
<b>Water Law</b>	2010 latest update 2019	<a href="https://faolex.fao.org/docs/pdf/ger73260.pdf">https://faolex.fao.org/docs/pdf/ger73260.pdf</a>  <a href="https://voris.wolterskluwer-online.de/browse/document/28842cc0-9bf5-3511-ad30-f3cb6e87c933">https://voris.wolterskluwer-online.de/browse/document/28842cc0-9bf5-3511-ad30-f3cb6e87c933</a>  <a href="http://www.nds-voris.de">www.nds-voris.de</a>	<p>One Law implemented in several ordinances. do we need the most relevant ordinances?  <a href="https://www.ecolex.org/details/legislation/lower-saxony-water-law-lex-faoc073260/">https://www.ecolex.org/details/legislation/lower-saxony-water-law-lex-faoc073260/</a></p> <p>The present Law applies to surface waters, coastal waters, groundwaters and parts thereof. Waters are to be secured as part of the natural environment and living space for human beings, animals and plants. They have to be managed in such a way that they meet the wellbeing of the community; once such a principle is complied with, their use may also suit individual interests. Adverse influence on eco-systems has to be avoided and in general a sustainable development has to be guaranteed. In view of the paramount necessity to safeguard the climate, a high degree of protection for the whole environment shall have to be ensured. The text consists of 198 articles divided into 11 chapters as follows: General provisions (I); Provisions relating to surface waters (II); Provisions relating to coastal waters (III); Provisions relating to groundwaters, protection of thermal and medicinal waters (IV); Water supply, disposal of waste water discharge (V); Installations concerning the discharge of harmful substances into waters (VI); Competent authorities, data base, assessment of hazard (VII); Compulsory rights (VIII); Planning of water resources, Water Register (IX); Penalties (X); Transitional and final provisions (XI).</p>
<b>Niedersächsisches Umweltverträglichkeitstprüfungsgesetz (NUVPG)</b>		<a href="https://voris.wolterskluwer-online.de/browse/document/182b32b3-5240-3ee3-8099-f9f2dcc8c007">https://voris.wolterskluwer-online.de/browse/document/182b32b3-5240-3ee3-8099-f9f2dcc8c007</a>	
<b>Hamburg</b>			
<b>Ausführungsgesetz</b>	2010, amended 2020		Hamburgisches Gesetz zur Ausführung des Bundesnaturschutzgesetzes (HmbBNatSchAG). Nature Conservation and Landscape Management
<b>National Park Act Hamburg</b>	1990, amended 2017	<a href="https://www.landesrecht-hamburg.de/bsha/document/jlr-WattMGHArahmen">https://www.landesrecht-hamburg.de/bsha/document/jlr-WattMGHArahmen</a>	Law on the Hamburg Wadden Sea National Park to conserve natural habitats and wild animals and plants. Defines rules regulating the human activities within the National Park.
<b>Water Law</b>	2005 latest update 2012	<a href="https://www.landesrecht-hamburg.de/bsha/document/jlr-WasGHA2005V3IVZ">https://www.landesrecht-hamburg.de/bsha/document/jlr-WasGHA2005V3IVZ</a>  <a href="https://nettelnburg.com/wp-content/uploads/2016/08/Hamburgisches-Wassergesetz-2012.pdf">https://nettelnburg.com/wp-content/uploads/2016/08/Hamburgisches-Wassergesetz-2012.pdf</a>	Hamburgisches Wassergesetz (HWaG)

State planning programme			
Gesetz über die Umweltverträglichkeitsprüfung in Hamburg (HmbUVPg)		<a href="https://www.landesrecht-hamburg.de/bsha/document/jlr-UVPgHAV5P1">https://www.landesrecht-hamburg.de/bsha/document/jlr-UVPgHAV5P1</a>	
<b>DENMARK</b>			
Nature Conservation Act	1992, last amended 2024	<a href="https://www.retsinformation.dk/eli/lt/2022/1392">https://www.retsinformation.dk/eli/lt/2022/1392</a>	The 1st of July 1992, the Nature Conservation Act entered into force in Denmark (this act replaced an older nature conservation act). The purpose of this act is to contribute to safeguarding nature and environment in Denmark, thus ensuring sustainable social development in respect of human conditions of life as well as the protection of flora and fauna. The objective of the act is to protect nature with its stock of wild animals and plants and their habitats as well as its scenic, cultural historic, natural science and educational values. The act furthermore aims to improve and restore or create areas of significance for wild animals and plants and for landscape and historical interests and to provide access to nature and to improve opportunities for open-air-recreation (CWSS nomination dossier).
The Statutory Order for the Danish Nature and Wildlife Reserve			The Danish Wadden Sea is subject to a comprehensive protection within the framework of the Statutory Order of the Nature and Wildlife Reserve Wadden Sea established in 1979 and 1982, merged into one Statutory Order in 1992, and amended in 2007. It is part of the overall trilateral Conservation Area. The Wadden Sea order specifically intends to promote the sustainable management of the Wadden Sea and preserve the area as a coherent natural area of national and international importance and as a habitat for seals and populations of waterfowl. Obligations of Natura 2000 are ensured within the order.
Decree on conservation and game reserve in the Wadden Sea	2007	<a href="https://www.retsinformation.dk/eli/lt/2007/867">https://www.retsinformation.dk/eli/lt/2007/867</a>	The purpose of the executive order is 1) to promote sustainable management of the Wadden Sea, 2) to ensure fulfilment of Denmark's international obligations in accordance with a) declaration of 9 December 1982 on the protection of the Wadden Sea signed by the Danish, German and Dutch governments, b) birds Directive, c) Habitats Directive, d) Ramsar convention.
Executive Order on the Wadden Sea National Park	2010	<a href="https://www.retsinformation.dk/eli/lt/2010/1159">https://www.retsinformation.dk/eli/lt/2010/1159</a>	
Planning Act	1991, last amended in 2025	<a href="https://www.retsinformation.dk/eli/lt/2024/572">https://www.retsinformation.dk/eli/lt/2024/572</a>	<p>§ 1. The Act must ensure coherent planning that unites societal interests in land use, contributes to protecting the country's nature and environment as well as climate and creates a good framework for growth and development throughout the country, so that social development can take place on a sustainable basis with respect for human living conditions, conservation of animal and plant life and increased economic prosperity.</p> <p>PCS. 2. The Act specifically intends,</p> <p>1) that, on the basis of a planning and socio-economic overall assessment, appropriate development takes place throughout the country and in the individual municipalities and local communities,</p> <p>2) that valuable buildings, urban environments and landscapes are created and preserved,</p>



			<p>3) to create a good framework for business development and growth,</p> <p>4) that the open coasts must continue to constitute a significant natural value and landscape value,</p> <p>5) that biodiversity is supported and that emission of greenhouse gases, pollution of air, water and soil as well as noise disadvantages are prevented,</p> <p>6) that the public is involved as far as possible in the planning work, and</p> <p>7) that versatility in the housing composition is promoted through the possibility of planning for public housing in the cities.</p>
<b>Maritime Strategy Act</b>	2017	<a href="https://retsinformation.dk/eli/lt/2019/1161">https://retsinformation.dk/eli/lt/2019/1161</a>	The purpose of the Act is to determine the framework for the measures that must be implemented in order to achieve or maintain good environmental conditions in the marine ecosystems, and enable a sustainable use of the marine resources.
<b>Maritime Spatial Planning Act</b>	2016, last amended 2020	<a href="https://www.retsinformation.dk/eli/lt/2020/400">https://www.retsinformation.dk/eli/lt/2020/400</a>	<p>Maritime Spatial Planning Act. The Act lays down the framework for the implementation of a planning of the Danish sea areas.</p> <p>The purpose of the law is to promote economic growth, the development of marine areas and the exploitation of marine resources on a sustainable basis; contribute to the achievement of the objectives for maritime planning set out in this Act; consider the interaction between land and sea and strengthen cross-border cooperation in accordance with the provisions of the UN Convention on the Law of 1982. Also refers to the Directive 2014/89/EU on maritime spatial planning. In order to achieve the objectives in aim to contribute to the sustainable development of the energy sector at sea, sea transport, transport infrastructure, fisheries and aquaculture.</p>
<b>Act on the Protection of the Marine Environment</b>	1993, last amended 2024	<a href="https://www.retsinformation.dk/eli/lt/2019/1165">https://www.retsinformation.dk/eli/lt/2019/1165</a>	cf. Legislative Decree No. 1032 of 25 June 2023. The law must contribute to protecting nature and the environment, so that social development can take place on a sustainable basis in respect for human living conditions and for the preservation of animal and plant life.
<b>EUROPEAN UNION</b>			
<b>Directive 92/43/EEC - Habitats Directive</b>	1992	<a href="https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:01992L0043-20130701&amp;from=EN">https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:01992L0043-20130701&amp;from=EN</a>  <a href="https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A31992L0043&amp;qid=1614765208665">https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A31992L0043&amp;qid=1614765208665</a>	defines coastal sand dunes of the North Sea as a natural habitats type of community interest whose conservation requires the designation of special areas of conservation.
<b>Directive 2000/60/EC - Water Framework Directive</b>	2000	<a href="https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:01992L0043-20130701&amp;from=EN">https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:01992L0043-20130701&amp;from=EN</a>  <a href="https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32000L0060&amp;qid=1614765208665">https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32000L0060&amp;qid=1614765208665</a>	The directive establishes a framework for Community action in the field of water policy. Its purpose is to "establish a framework for the protection of inland surface waters, transitional waters, coastal waters and groundwater". It refers to some extent to flood protection.
<b>2008/56/EC Marine Strategy Framework Directive</b>	2008	<a href="https://ec.europa.eu/environment/marine/eu-coast-and-marine-policy/marine-strategy-framework-directive/index_en.htm">https://ec.europa.eu/environment/marine/eu-coast-and-marine-policy/marine-strategy-framework-directive/index_en.htm</a>	



<b>Environmental Impact Assessment Directive</b>	2011	<a href="https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32011L0092&amp;qid=1614767155442&amp;from=EN">https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32011L0092&amp;qid=1614767155442&amp;from=EN</a> <a href="https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32011L0092&amp;qid=1614767155442">https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32011L0092&amp;qid=1614767155442</a>	The directive establishes a framework for the assessment of the effects of certain public and private projects on the environment. For coastal work to combat erosion and maritime works which can affect the coast (e.g. dykes, sea defence works...), Member States can decide if there should be an assessment for the project. in accordance with Articles 5 to 10. Refers to the Espoo Convention and the Habitats Directive.
<b>SEA Directive (2001/42/EC)</b>	2001	<a href="https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32001L0042">https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32001L0042</a>	The Strategic Environmental Assessment (SEA) Directive sets out a procedure that must be undertaken when assessing a plan or programme to which the procedure applies (i.e. land use, transport, energy, waste, agriculture).
<b>ESPOO Convention</b>	2001	<a href="https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32001L0042">https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32001L0042</a>	The Espoo (EIA) Convention sets out the obligations of Parties to assess the environmental impact of certain activities at an early stage of planning. It also lays down the general obligation of States to notify and consult each other on all major projects under consideration that are likely to have a significant adverse environmental impact across boundaries.
<b>Kyiv Protocol to the ESPOO Convention</b>	2010	<a href="https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A22008A1119%2802%29">https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A22008A1119%2802%29</a>	The SEA Protocol requires states to evaluate the consequences of their official draft plans and programmes, and, to the extent appropriate, policies and legislation that are likely to have significant environmental effects.
<b>Maritime Spatial Planning</b>	2014	<a href="https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014L0089&amp;from=EN">https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014L0089&amp;from=EN</a> <a href="https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32014L0089">https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32014L0089</a>	Establishes a framework for maritime spatial planning within the EU. Refers to the UNCLOS. Refers to the Birds Directive, Habitats Directive, Marine Strategy Framework Directive and Water Framework Directive.

## Annex 4. Preliminary list of reasonably foreseeable future programmes, plans and projects organised per SIMP key topic

SIMP key topic	Generalised examples of identified ongoing and reasonably foreseeable future programmes, plans and projects
<b>Energy</b>	<p><b>Programmes and Plans:</b> State Spatial Planning Programmes, State Spatial Planning for the EEZ, Regional Spatial Planning Plans</p> <p><b>Projects:</b> Wind farm construction onshore and offshore, Offshore high voltage submarine power grid connection, Onshore high voltage overhead power grid connection, High voltage power grid interconnector, Gas Pipeline (Hydrogen, CO<sub>2</sub>) interconnector, Power to X Plant/ Hydrogen plant, Power Plant Energy from Biomass/Waste, Tidal Energy power plant, Exploration of Oil/Gas Fields, Exploitation of Oil/Gas Fields.</p>
<b>Shipping and Ports</b>	<p><b>Programmes and Plans:</b> Sectoral Strategies on Maritime Traffic</p> <p><b>Projects:</b> Harbour Extensions, Deepening/ Dredging of Fairway, Dumping Sites for Dredged Material</p>
<b>Fisheries</b>	<p><b>Programmes and Plans:</b> Sectoral Plans for Shrimp fishery, Shellfish Management Plans</p> <p><b>Projects:</b> Shellfish Culture Plots, Shellfish handpicking permits, Shellfish Seed (Rope)Collectors, (Introduction of Seed Mussels), Mechanic Worm Fishing</p>
<b>Tourism</b>	<p><b>Programmes and Plans:</b> State Spatial Planning Programme, Regional Spatial Planning Plan, Sectoral Strategy, Recreational Water sports Regulations</p> <p><b>Projects:</b> Mud flat walking tours, Seal/ whale watching ship tours, Events/ Festivals, Hike and bike routes, Visitor Infrastructure in the field</p>
<b>Coastal Flood Defence and Protection</b>	<p><b>Programmes and Plans:</b> State Spatial Planning Programme, Sectoral Strategy, Saltmarsh Management Plans</p> <p><b>Projects:</b> Submarine Sand Extraction, Dike Strengthening, Sand Suppletion, Dune Strengthening, Saltmarsh Management Plans</p>
<b>Other (with potential negative effects)</b>	<p><b>Programmes and Plans:</b> Sectoral Plan Military infrastructure</p> <p><b>Projects:</b> Airfield, extension, Discharge of Wastewater, Exploitation of Mineral Salt, Pipeline for industrial Water, Water Management Infrastructure, Locks and Sluices, Industrial/ Chemical Plants</p>
<b>Other (aiming at positive effects)</b>	<p><b>Programmes and Plans:</b> Nature Conservation Management Plans, Water Framework Directive Management Plans, Marine Strategy Directive Programme of Measures</p> <p><b>Projects:</b> -</p>

## Annex 5. Preliminary list of sources of information for the present baseline.













Author(s)	Year(s)	Title (English)	Area	OUV key values relation (1-10)	Links
<b>INTERNATIONAL</b>					
<b>Netherlands</b>	2024	East Atlantic Flyway Monitoring	Bird Monitoring	X	<a href="https://sovon.nl/actueel/nieuwsberichten/13000-waarnemers-uit-36-landen-leveren-enorme-telprestatie-bij-east">https://sovon.nl/actueel/nieuwsberichten/13000-waarnemers-uit-36-landen-leveren-enorme-telprestatie-bij-east</a>
<b>TRILATERAL</b>					
<b>Independent scientists</b>	planned for 2024/5	Quality Status Synthesis Report	Wadden Sea World Heritage	All	
<b>Independent scientists</b>	1999/ 2009-2024	QSR thematic reports (2009-2024) and TMAP parameter data (1999-2024)	Wadden Sea World Heritage	All	<a href="https://qsr.waddensea-worldheritage.org/">https://qsr.waddensea-worldheritage.org/</a>
<b>State Parties/ TWSC</b>	2009, 2011, 2014	Nomination Dossiers	Wadden Sea World Heritage	All	<a href="https://whc.unesco.org/en/list/1314/documents/">https://whc.unesco.org/en/list/1314/documents/</a>
<b>State Parties/ TWSC</b>	2014, 2023	UNESCO Periodic Reporting	Wadden Sea World Heritage	All	
<b>State Parties/ TWSC</b>	2020, planned for 2025	IUCN World Heritage Outlook (for Wadden Sea)	Wadden Sea World Heritage	All	
<b>NETHERLANDS</b>					
<b>D. Heidinga, B. Schilt, F. Versloot, W. Gotjé, W. Bijkerk en J.B. Latour</b>	2023	Ecological evaluation N2000 management plans (Wadden Sea)	N2000 targets	All	<a href="https://www.waddenzee.nl/actueel/nieuwsoverzicht/2024/natuurbescherming-waddenzee-kost-tijd/">https://www.waddenzee.nl/actueel/nieuwsoverzicht/2024/natuurbescherming-waddenzee-kost-tijd/</a>
<b>Katja Philippart, Kees Bastmeijer, Piet Hoekstra &amp; Marleen van Rijswijk</b>	2022	Factsheet Quality of surface water in the Wadden Sea region	Water quality	IX en X	<a href="#">Factsheet Waterkwaliteit Waddengebied 2022-03.pdf (waddenacademie.nl)</a>
<b>Basismonitoring</b>	Yearly	Wadden in focus	Broad	All	<a href="#">Wadden in Beeld - basismonitoringwadden (waddenzee.nl)</a>
<b>Rekenkamer</b>	2013	Report Wadden Region: nature protection, nature management and spatial planning	All nature	All	<a href="https://www.rekenkamer.nl/publicaties/rapporten/2013/11/28/waddengebied-natuurbescherming-natuurbeheer-en-ruimtelijke-inrichting">https://www.rekenkamer.nl/publicaties/rapporten/2013/11/28/waddengebied-natuurbescherming-natuurbeheer-en-ruimtelijke-inrichting</a>
<b>AT Osborne</b>	2018	Exploration Wadden Sea Management Authority	All nature	All	<a href="#">02.1 Eindversie Verkenning Beheerautoriteit Waddenzee.PDF (officielebekendmakingen.nl)</a>









<b>Waddenacademie &amp; CBS</b>	2024	State of the Wadden Sea			<i>In progress</i>
<b>GERMANY</b>					
<b>National</b>					
<b>BMUB</b>	2012	Initial assessment	Germany/ biogeogr. Region	1 - 8	<a href="#">BMUV: Anfangsbewertungen der deutschen Nord- und Ostsee   Download</a>
<b>BfN</b>	2019	Habitats Directive report 2019	Germany/ biogeogr. Region	4,7,8	<a href="#">FFH Bericht 2019   BfN</a>
<b>BfN</b>	2019	Bird protection report 2019	Germany/ biogeogr. Region	7,8,9,10	<a href="#">Vögel in Deutschland - Vogelschutzbericht 2019 (bfm.de)</a>
<b>Lower Saxony, Hamburg, Schleswig-Holstein</b>					
<b>FGG Elbe</b>	2021	Management plan for the Elbe river basin district  Annex A5-2: List of surface water bodies with information on status/potential and achievement of management objectives	Coastal region Schleswig-Holstein, Hamburg, Lower Saxony with Elbe estuary	1 - 8	<a href="#">Bewirtschaftungsplan 2021 (für den Zeitraum 2022 - 2027) - FGG Elbe (fgg-elbe.de)</a>
<b>Lower Saxony</b>					
<b>NLWKN</b>	2010	Assessment of the status of transitional and coastal waters in Lower Saxony	Lower Saxon Coastal Waters, also inside WSWH	1 - 8	<a href="https://www.nlwkn.niedersachsen.de/wasserrahmenrichtlinie/uebergangs_und_kustengewasser/bewertung_nach_eg_wrrl/bewertung-der-uebergangs--und-kuestengewaesser-119145.html">https://www.nlwkn.niedersachsen.de/wasserrahmenrichtlinie/uebergangs_und_kustengewasser/bewertung_nach_eg_wrrl/bewertung-der-uebergangs--und-kuestengewaesser-119145.html</a>
<b>EU</b>	2008	Decision on intercalibration (EU)		1 - 8	<a href="https://www.nlwkn.niedersachsen.de/wasserrahmenrichtlinie/uebergangs_und_kustengewasser/bewertung_nach_eg_wrrl/bewertung-der-uebergangs--und-kuestengewaesser-119145.html">https://www.nlwkn.niedersachsen.de/wasserrahmenrichtlinie/uebergangs_und_kustengewasser/bewertung_nach_eg_wrrl/bewertung-der-uebergangs--und-kuestengewaesser-119145.html</a>
<b>NLWKN</b>	2011	Implementation instructions for species and biotope protection	Lower Saxony	4 - 10	<a href="#">Vollzugshinweise für Arten und Lebensraumtypen   Nds. Landesbetrieb für Wasserwirtschaft, Küsten- und Naturschutz (niedersachsen.de)</a>
<b>NLPV</b>	2022	Management measures in the Lower Saxon Wadden Sea National Park	Lower Saxon Wadden Sea National Park		<a href="#">Maßnahmenplanung für das FFH-Gebiet "Nationalpark Niedersächsisches Wattenmeer" - Nationalpark Wattenmeer (nationalpark-wattenmeer.de)</a>
<b>Schleswig-Holstein</b>					

<b>MELUND (MEKUN)</b>	2022	Management plan for the Eider river basin district	Schleswig-Holstein coastal waters	1 - 8	<a href="https://www.schleswig-holstein.de/DE/fachinhalte/W/wasserrahmenrichtlinie/bewirtschaftungszeitraum3.html?nn=361421d9-6f5c-46d8-9ff9-d6a5b89fa18e">https://www.schleswig-holstein.de/DE/fachinhalte/W/wasserrahmenrichtlinie/bewirtschaftungszeitraum3.html?nn=361421d9-6f5c-46d8-9ff9-d6a5b89fa18e</a>
<b>MELUND (MEKUN)</b>	2019	Monitoring and reports in accordance with Art17 of the Habitats Directive	Schleswig-Holstein incl. coastal waters	1,4,7,8,9	
<b>MEKUN</b>	2020	Habitats Directive report of the State of Schleswig-Holstein	Schleswig-Holstein	4,7,8,9	

## Annex 6. Matrix of (potential) impacts related to a) shipping and ports and to b) energy production and the OUV key values of the Wadden Sea World Heritage site, time frame 2016-2022.

*The following legend shows the symbols used in the rapid assessment matrix (taken from the UNESCO Periodic Reporting, degrees additionally symbolised by traffic light colours) for shipping and ports and energy production. This method will be extended to all SIMP key topics.*

Impact		Origin		Trend		Temporal scale	
	positive		inside		stable		one off or rare
	negative		outside		increasing		intermittent or sporadic
	current				decreasing		frequent or on-going
	potential						

































































































































Degree of concern (negative)			Spatial scale		
	Insignificant	The (potential) impact has no effect on the OUV key value.		Widespread	affecting between 91-100% of the property's area at any one time
	Minor	The (potential) impact produces/can produce a minor disturbance of the OUV key value.		Extensive	affecting between 51-90% of the property's area at any one time
	Significant	The (potential) impact produces/can produce a significant disturbance of the OUV key value.		Localised	affecting between 11 and 50% of the property's area at any one time
	Major	The (potential) impact is/can be a major cause of disturbance of the OUV key value.		Restricted	affecting less than 10% of the property's area at any one time
	Range	The (potential) impact is/can be from insignificant to a major cause of disturbance of the OUV			

## a) Shipping and ports

Possible conflicts	Activity related to energy production	Impact	Criterion (viii): Outstanding geological processes			Criterion (ix): Ongoing ecological and biological processes				Criterion (x): Vital habitats for in-situ biodiversity conservation		
			1	2	3	4	5	6	7	8	9	10
			Unbroken tidal flat and barrier system	Typical geomorphological diversity	Ongoing natural geomorphological processes	Intact natural intertidal ecosystems	Linked geomorphological, biophysical and biological processes	High biomass production typical for the Wadden Sea	Key site for sustaining abundant wildlife beyond its borders	High typical biodiversity	Staging, moulting and wintering area for migratory birds	Essential stopover for the East Atlantic Flyway
Introduction of invasive alien species	Operational pollution											
Underwater noise	Operational pollution											
Greenhouse Gas Emissions	Operational pollution											
Dredging and dumping of sediments in estuaries	Maintenance											
Pollution due to Accidents	Accidental pollution											
Pollution due to unlawful Acts	Unlawful acts											



## b) Energy production

			Criterion (viii): Outstanding geological processes			Criterion (ix): Ongoing ecological and biological processes				Criterion (x): Vital habitats for in-situ biodiversity conservation		
			1	2	3	4	5	6	7	8	9	10
Possible conflicts	Activity related to energy production	Impact	Unbroken tidal flat and barrier system	Typical geomorphological diversity	Ongoing natural geomorphological processes	Intact natural intertidal ecosystems	Linked geomorphological, biophysical and biological processes	High biomass production typical for the Wadden Sea	Key site for sustaining abundant wildlife beyond its borders	High typical biodiversity	Staging, moulting and wintering area for migratory birds	Essential stopover for the East Atlantic Flyway
Underwater noise	Wind energy	   							 			
Reef effect	Wind energy, gas and oil	   								 		
Physical disturbance of the seafloor	Cables and pipelines	   			 	 	 	 	 		 	
Turbidity and Sedimentation	Cables and pipelines	   			 	 	 	 	 	 	 	 
Heat dissipation	Cables and pipelines	   				 	 		 			
Electromagnetic fields	Cables	   				 						
Spills	oil, ships, pipelines	   				 	 	 	 	 	 	 
Ground surface subsidence	gas	   	 	 	 	 	 	 	 	 	 	 
Collisions	Wind energy, gas and oil, ships	   								 	 	 
Scaring	Wind energy, gas and oil, ships	   							 	 	 	 
Pollution	Wind energy, gas and oil, ships	