

Demand for Energy Puts the Wadden Sea at Risk

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Nothing less than the health of one of the world's largest tidal wetlands is currently at stake. Shared between Denmark, Germany and the Netherlands, the Wadden Sea is a global biodiversity hotspot and one of Europe's most dynamic and wild ecosystems. This is reflected in the site's extraordinarily high level of protection, with UNESCO world heritage status from 2009 (with expansions in 2011 and 2014)¹, due to meeting three of the outstanding universal value (OUV) criteria: the depositional coastline of unparalleled scale and diversity (criterion viii), some of the last remaining natural large-scale intertidal ecosystems where natural processes continue to function largely undisturbed (criterion ix) and the floral and faunal diversity (criterion x).² However, despite this protective status, relevant parts of the Wadden Sea are in a poor environmental state.^{3,4}



Fig. 1: Natural dynamics in the Wadden Sea.

Photo: Markus Keller

In addition to already existent pressures from shipping, fisheries and pollution, the Wadden Sea is suffering from unprecedented levels of infrastructure development and exploitation for large-scale energy projects, as well as salt and sediment extraction. The demand for energy, fuelled by the Russian invasion of Ukraine, is a key driver for this drastic increase in project development. Another key driver is the climate crisis, leading to off-shore wind development with serious impacts on the Wadden Sea. For all these energy projects, there are more environmentally friendly alternatives: 1) to produce energy without fossil fuels via renewable energy and 2) to place the necessary infrastructure for renewables as much as possible outside the world heritage site in less ecologically sensitive locations, while also

mitigating the impact of the remaining ones. As long as these alternatives are not being implemented, they come at the cost of people and nature in the world heritage site.

United trilateral response by environmental NGOs

A coalition of nature NGOs from Denmark, Germany and the Netherlands has been closely monitoring progress in the property. We call for the urgent and complete implementation of Decision 45COM 7B.23 from 2023, as well as additional concerted action to address new developments. Key mandates are currently being ignored by Parties, such as para. 13c) to only authorise projects if they are shown to not adversely affect the OUV, and the clear mandate to stop specific projects (i.e., Ternaard and Mittelplate). Furthermore, we do not see evidence of the application of the UNESCO Guidance for Wind Energy Projects in a World Heritage Context (para. 12), for example given the misalignment in national nature, climate, and energy policies. At least in Germany, the Maritime Spatial Plan fails to consider the impact on the OUV of the Wadden Sea. While we appreciate that the Parties jointly submitted a State of Conservation Report in February 2024, most critical input from NGOs was neglected. The NGO coalition has therefore been sending several letters of alert to the World Heritage Centre. In February 2024, 22 NGOs wrote in response to the above-mentioned submission of the State of Conservation Report, including an Annex with detailed comments on the report⁵. The following projects and issues are of particular concern:

1. Fossil Project "Mittelplate" (DE)

As criticized in UNESCO decision 45 COM 7B.23, the Wintershall Dea company currently operates the oil platform "Mittelplate" in a dedicated fossil enclave in the centre of the southern Schleswig-Holstein property under a permit running until 2041 (see Fig. 2). While we appreciate that the regional government did not grant permission to a proposal to further expand exploitation in May 2024⁶, we severely criticize that Wintershall Dea is allowed to continue operating until 2041. The platform is already 36 years old, which increases the risk of an accident. The consequences of an oil spill would be disastrous to the ecosystem and its function: millions of waders, as well as harbour

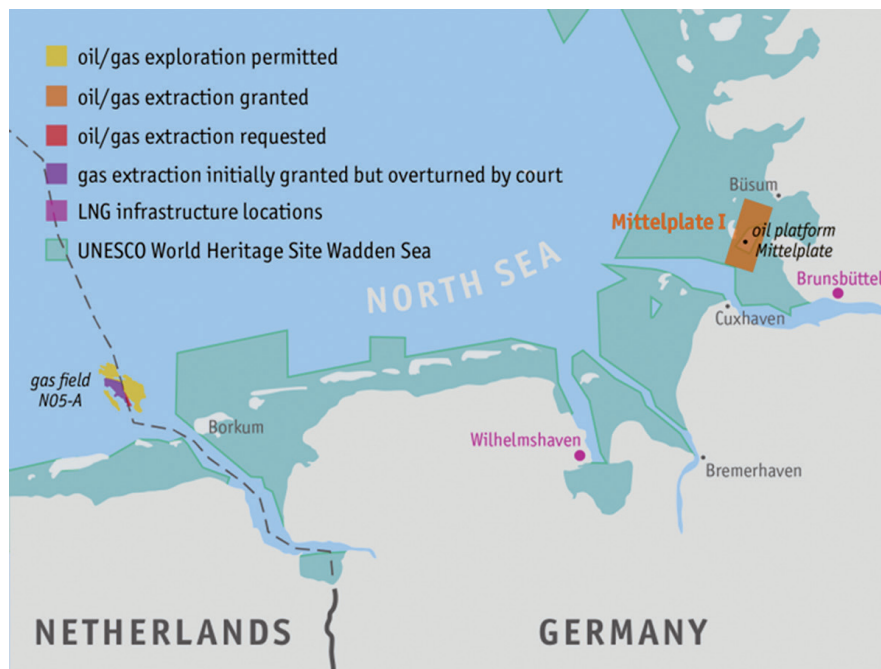


Fig. 2: Overview of current fossil fuel projects in the German and Dutch Wadden Sea.

Map: Deutsche Umwelthilfe

seals, grey seals and porpoises would lose their food source and livelihood in the mudflats.⁷ In line with the UNESCO decision, we call for a quick end of fossil fuel extraction in the property. The artificial enclaves for oil production within the Schleswig-Holstein and the Lower Saxony parts of the property should be fully included in the world heritage site, to close this loophole forever.

2. Fossil Project “GEMS” (NL-DE)

A consortium including the Waddenvereniging, Deutsche Umwelthilfe and the city of Borkum overturned the Dutch permission for the “GEMS” gas exploitation project, which has been

previously featured in the World Heritage Watch Report in 2022⁸ (see Fig. 3). The complete rejection of this project is however still pending in the Netherlands, and the permitting process is also still ongoing in Lower Saxony on the German side. The Dutch company ONE-Dyas, together with partners, aims to extract at least 13.6bn Nm³ over 10–35 years about 20 km from the islands of Schiermonnikoog and Borkum from the end of 2024. Environmental impacts are serious and include the destruction of a reef right next to the WHS, constant discharge of heavily polluted production water, widespread seabed subsidence, increased risks of earthquakes with the danger of destroying the freshwater lens below Borkum, disruption of fish migration and nitrogen emissions.⁹ The probability of an accident is exceptionally high.¹⁰

At least three OUV criteria would be permanently and severely compromised while the company plans to further expand its gas production in the area.¹¹

3. Fossil Project “Ternaard” (NL)

The fossil fuel company NAM is planning to extract gas near Ternaard in the Dutch Wadden Sea, with likely negative impacts not just including pollution and habitat loss, but also seabed subsidence, which is incompatible with actual sea level rise. We demand that the decision by the Dutch Parliament from 12.03.2024 to reform Dutch mining law to restrict mining activities¹² (fossil gas, as well as salt) will be adequately applied to stop the project going forward¹³. While we appreciate this decision by the Dutch parliament, we fear that it is still feasible that the project will go ahead and therefore call for a definitive cancellation.

4. Fossil Projects: LNG-Terminals (DE, NL)

Currently, there are three locations for the import of fossil Liquefied Natural Gas (LNG) operating or in construction in the Wadden Sea and its estuaries: Eemshaven, Wilhelmshaven (2 Floating Storage and Regasification Units [FSRU] & 1 planned onshore terminal) and Brunsbüttel (1 FSRU & 1 planned onshore terminal). They lead to increased pollution e.g. from oils, NO_x, SO₂, particulate matter, damage fish populations, and cause

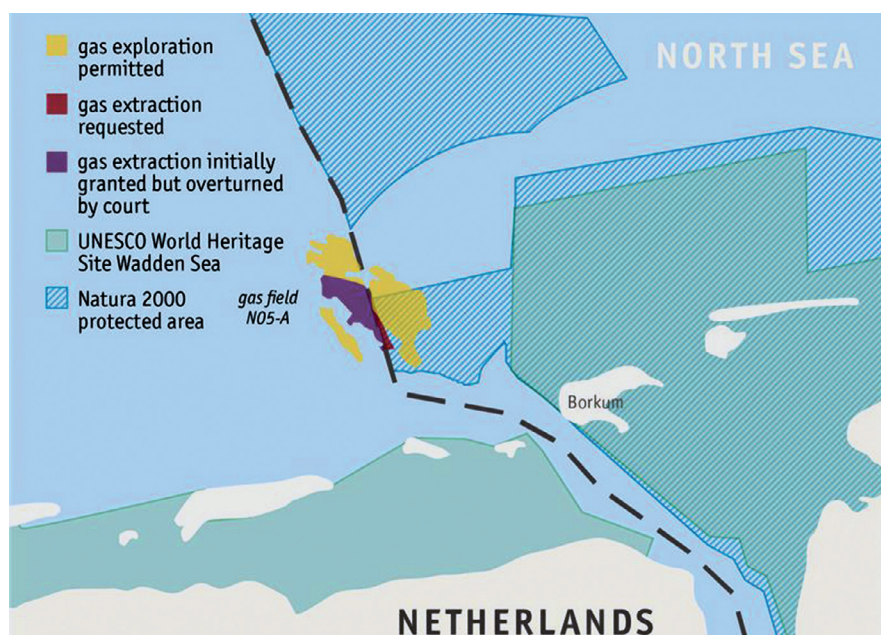


Fig. 3: Status of authorisation for exploration and extraction of the N05-A gas field within and close to the Wadden Sea WHS and the Natura 2000 protected area.

Map: Deutsche Umwelthilfe

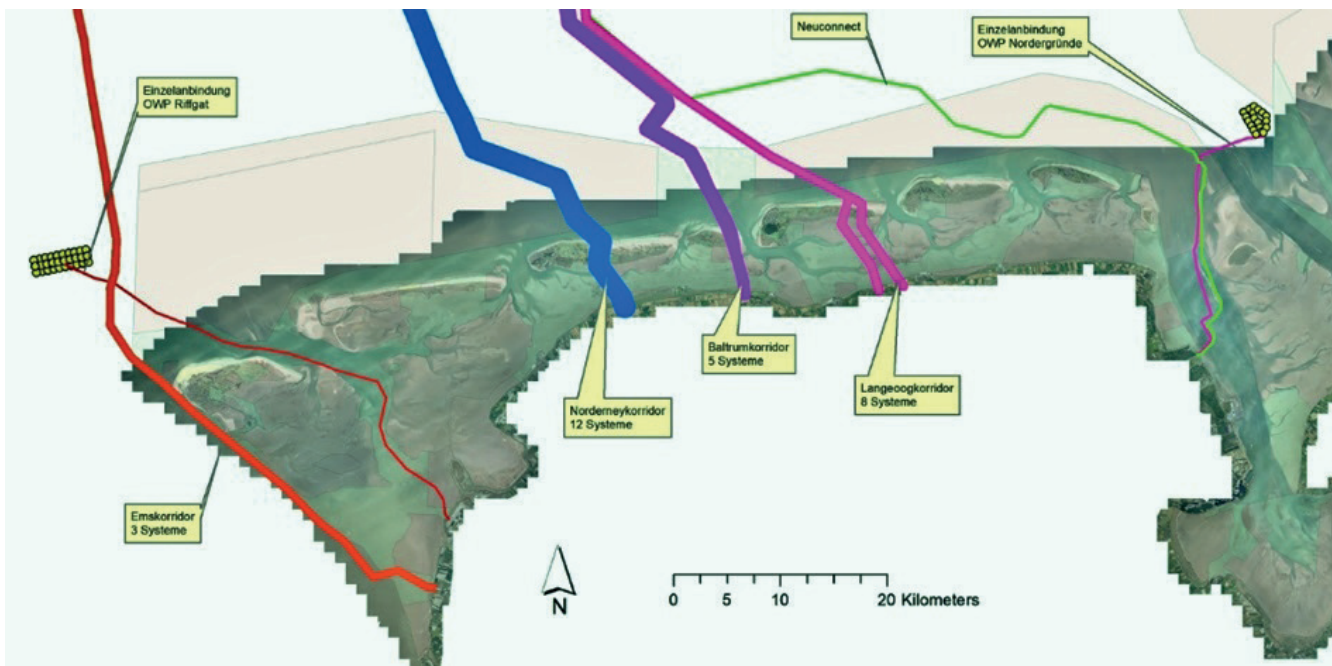


Fig. 4: Locations of the fossil projects “Ternaard” in the west and “Gems” in the east

Map: Amended from Map 1 in the State of Conservation Report: <https://www.waddensea-worldheritage.org/2024-report-state-conservation-world-heritage-property-wadden-sea-n1314>.

disturbances through increased ship traffic and construction. The floating terminal in Wilhelmshaven uses chlorine to clean its seawater pipes, which is particularly damaging. A lawsuit by DUH is currently pending. Additionally, seawater is used to regasify the gas, which is then returned to the sea at a cooler temperature. Not only has the Wadden Sea ecosystem been damaged during the construction of the current floating terminals, but future expansion of the fixed onshore infrastructure will cause additional damage.¹⁴

5. Cable and pipeline routes within the property (DE, NL)

There are plans to drastically increase the number of high-voltage cable and pipeline corridors across the property. Germany alone aims to scale up the energy transferred through the Wadden Sea from offshore wind to the mainland from about 9,5 GW today to 66 GW in 2045, in addition to hydrogen and CO₂ pipelines¹⁵. In Germany, in the Lower Saxonian part of the WHS alone, 34 new corridors are planned in addition to the 14 existing ones and 3 offshore gates (see Fig. 4), further damaging pristine habitats critical for seals and birds. In the Netherlands, the first potential corridors for high-voltage cables and hydrogen-pipelines are being assessed, which might also damage pristine parts. The renewable infrastructure expansion must be implemented as sensitively as possible.

Given that alternative routes for cables and pipelines are available in already heavily damaged shipping channels, no further corridors should be designated and built within the property. Existing cable corridors (e.g., Norderney) should be upgraded to the new generation of 2 GW cables, whilst pushing the develop-

ment of non-invasive installation techniques (i.e., vibrating cable plough). Open trench installation (see Fig. 5) must be avoided at all costs.



Fig. 5: Open trench for cable installation.

Photo: Lower Saxon Wadden Sea National Park Authority

6. Selection of other harmful projects

- Renewable energy is critical to tackle the climate crisis, but the expansion of offshore wind in the North Sea to 120 GW by 2030 and 300 GW by 2050 is going to impact the property, especially seabird populations and migrating birds, harbour porpoises and overall underwater noise levels due to service and construction vessel traffic¹⁶.
- Salt mining continues to be a threat in the Netherlands, but new government regulation may lead to a halt.
- The deepening of estuaries and shipping channels for large ships to reach ports is leading to ever-increasing dredging and dumping volumes. Hamburg dumps large amounts of

polluted dredging material at “Neuer Lüchtergrund” close to the Wadden Sea and plans to dump much more directly at the edge of the WHS and west of Helgoland¹⁷.

- Fisheries across almost the entire Dutch and German part of the property, notably for shrimp and mussels, continues to have a severe impact on fish populations, the ocean floor and carbon emissions¹⁸.

Conclusion

The cumulative pressure on the Wadden Sea property is too high and incompatible with its World Heritage Status. We therefore call upon the World Heritage Committee to decide at its 46th session to:

- **Urge** the State Parties to implement Decision 45 COM 7B.23, notably to stop extractive activities in the vicinity or underneath of the property in particular the GEMS, Tenaard, Mittelplate and Ballastplaat projects and to authorise project proposals only if adequate assessments demonstrate no adverse impact on the OUV (section 13 c);
- **Request** the State Parties to reject any future proposals for extractive activities inside or in close proximity to the property;
- **Remind** State Parties that the joint Strategic Environmental Assessment must consider the cumulative impact of all pressures on the property, assess individual projects on a case-by-case basis, and provide clear advice on red lines and improvements;
- **Urge** the State Party of Germany to immediately stop the LNG projects in Wilhelmshaven and Brunsbüttel, and to stop the use of biocides at the Wilhelmshaven terminal;
- **Urge** Germany not to permit any dumping site for harbour sludge or other polluted sediment so that the OUV will be impacted, certainly not within or close to the property;
- **Urge** State Parties to not develop any new corridors for high-voltage cables, pipelines or other energy infrastructure inside the property (notably Baltrum, Langeoog), to minimize adverse impacts in existent corridors and to submit a trilateral assessment of the cumulative impact of cable, pipeline and linear infrastructure on the OUV of the property to the World Heritage Centre for review by IUCN prior to a final decision on the projects;
- **Call** upon the State Parties to scope and explore safe corridors for cables and pipelines underneath existing shipping lanes using non-invasive techniques as a means to speed up the much-needed European energy-transition;
- **Call** on Germany to nominate the remaining enclaves originally foreseen for fossil fuel extraction for inclusion in the property as soon as possible.

Notes

- 1 Additional protection levels for parts of the site include listings as a Ramsar site, National Park, Natura-2000 site, UNESCO MAB biosphere reserve, Particularly Sensitive Sea Area (PSSA) under the International Maritime Organization, fisheries exclusion and whale conservation zones
- 2 <https://whc.unesco.org/en/list/1314>
- 3 <https://www.ospar.org/work-areas/cross-cutting-issues/qsr2023> ; <https://qsr.waddensea-worldheritage.org/>
- 4 <https://qsr.waddensea-worldheritage.org/reports/breeding-birds> ; <http://docs.dpaq.de/17231-fmars-07-606609.pdf>
- 5 https://www.nabu.de/imperia/md/content/nabude/meeresschutz/240228_ngo-joint-letter_state-of-conservation.pdf ; https://www.nabu.de/imperia/md/content/nabude/meeresschutz/240228_ngo-joint-letter_state-of-conservation_annex.pdf
- 6 https://www.schleswig-holstein.de/DE/landesregierung/ministerien-behoerden/Presse/PI/2024/05/240507_Wintershall_Dea.html?n=2309ee6f-8d32-4a05-8272-354fb9fd297d ; <https://www.duh.de/presse/pressemitteilungen/pressemitteilung/fossile-plaene-von-wintershall-dea-gestoppt-deutsche-umwelthilfe-begruesst-absage-neuer-oel-bohrungen-im/>
- 7 <https://www.klimareporter.de/deutschland/das-russland-argument-sticht-im-wattenmeer-nicht>
- 8 P. 38 onwards: <https://world-heritage-watch.org/content/wp-content/uploads/2022/11/2022-Report-WHW-final.pdf>
- 9 <http://bi-saubere-luft-ostfriesland.de/09-12-2022-einwand-zur-richtbohrungen-n05-a-in-den-deutschen-sektor-der-nordsee-einschliesslich-der-erdgasfoerderung-im-deutschen-hoheitsgebiet-der-one-dyas-b-v/> ; https://www.duh.de/fileadmin/user_upload/download/Pressemitteilungen/Energie/Thema_Gas/221209_DUH_Einwendung_Borkum_Richtbohrungen_final.pdf
- 10 <https://www.duh.de/presse/pressemitteilungen/pressemitteilung/einwendung-eingereicht-deutsche-umwelthilfe-fordert-sofortigen-stopp-der-gasfoerderungsplaene-vor-nor/>
- 11 <https://www.gemsnorthsea.co.uk> ; <https://www.duh.de/presse/pressemitteilungen/pressemitteilung/neue-test-gasbohrungen-vor-borkum-deutsche-umwelthilfe-geht-gegen-verfahrenswidrige-genehmigung-vor/>
- 12 <https://www.omropfryslan.nl/nl/nieuws/16353129/tweede-kamer-wil-in-toekomst-geen-winning-van-gas-en-zout-in-waddenzee>
- 13 <https://waddenvereniging.nl/nieuws/einde-gaswinning-en-zoutwinning-onder-de-waddenzee-nu-vastgelegd-in-de-wet/>
- 14 <https://www.duh.de/lng/> ; <https://energy-terminal.de/de/terminals>
- 15 <https://www.government.nl/documents/diplomatic-statements/2023/04/24/ostend-declaration-on-the-north-sea-as-europes-green-power-plant>
- 16 <https://www.government.nl/documents/diplomatic-statements/2023/04/24/ostend-declaration-on-the-north-sea-as-europes-green-power-plant> ; <https://www.nabu.de/natur-und-landschaft/meere/offshore-wind-parks/33162.html> ; <https://www.nabu.de/imperia/md/content/nabude/energie/wind/230822-ampelstudie-english-summary-nabu.pdf>
- 17 <https://blogs.nabu.de/naturschaetze-retten/wp-content/uploads/sites/3/2024/01/20231206-Stellungnahme-Baggergut-NABU.pdf>
- 18 <https://qsr.waddensea-worldheritage.org/reports/fisheries>