

Plans for More Oil and Gas Extraction Put the Wadden Sea at Risk

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Fig. 1: Shelducks on the Waddensea at low tide.

Photo: Imke Zwoch / BUND

The Wadden Sea World Heritage Site (WHS) has long been under severe threat, and new fossil projects in Germany and the Netherlands now pose an existential danger to this unique site. Through the extraction of additional oil and gas, these projects will fuel the climate crisis, which will affect the coastline, the biodiversity of flora and fauna, and the maritime ecosystem as a whole in an unprecedented and irrevocable way.

The Wadden Sea WHS covers the Dutch Wadden Sea Conservation Area, the German Wadden Sea National Parks of Lower Saxony, Hamburg and Schleswig-Holstein, and most of the Danish Wadden Sea maritime conservation area. The WHS was inscribed on the UNESCO World Heritage list in 2009, with extensions in 2011 and 2014¹. The UNESCO World Heritage Committee decided that the site met three of the criteria of outstanding universal value (OUV): criterion (viii) by virtue of the depositional coastline of unparalleled scale and diversity, criterion (ix) by virtue of some of the last remaining natural large-scale intertidal ecosystems where natural processes continue to function largely undisturbed and criterion (x) by virtue of the floral and faunal diversity.¹

The OUV of the Wadden Sea WHS was already under threat well before the area was even declared a WHS: oil has been drilled on the German side since 1987.² However, the WHS is

now the target of a new shock-doctrine-like wave of fossil fuel projects, in the wake of the Russian invasion of Ukraine: the fossil lobby has succeeded at making them look like a “necessary evil” in the name of “energy security”. Meanwhile, the International Energy Agency (IEA) stated last year that no new fossil projects can be developed from 2021 onwards if the crucial climate target of keeping global warming below 1.5 °C should be met, in line with the Paris Agreement, and thereby avoiding the extremely catastrophic, civilization-threatening consequences of global warming.^{3,4,5}



Fig. 2: Aerial view of the Mittelplate oil platform, inside the World Heritage.

Photo: Ralf Roletschek

On the German side of the WHS, a new oil drilling area with multiple wells starting from the existing platform “Mittelplate” and an extension of the existing drilling permit until 2069 were applied for in 2019 (approval not yet granted, decision pending).⁶ The Dutch government recently granted ONE-Dyas the license to drill until 2060 in a particular area 15 km away from the WHS, and the company is exploring potential additional gas fields nearby (see Fig. 3). These fossil projects will drastically affect all three OUV criteria, as will be explained in detail hereafter.

1. Germany

On the German side of the Wadden Sea WHS, in the federal state of Schleswig-Holstein, the Wintershall Dea company has

been drilling for crude oil since 1987.² All the oil extraction takes place from the Mittelplate platform through extended-reach drilling.⁷ An exploration permit was originally granted in 1981 for the area “Heide Restfläche” and was extended periodically from then on, with the current one being valid until the end of 2023.⁸ A production permit was also granted back then, in this case until 2041, for the area “Mittelplate I”, located within the aforementioned exploration area (see Fig. 3).⁹

In 2019, Wintershall Dea applied for a new drilling permit (“NB1-0002-00”) for an area south of the current production area “Mittelplate I” (see Fig. 4), also within the exploration area, while simultaneously requesting to extend the production permit for the whole oil reservoir until 2069.⁶ The responsible authorities have not reached a decision yet in terms of granting or denying the permit, according to the currently limited information at our disposal.

However, the new coalition contract of the ruling parties in the region of Schleswig-Holstein explicitly supports the fossil project.¹⁰

The new area would mean additional reserves of up to 2 million tonnes of crude oil,¹¹ the depth of the oil reservoir being somewhere between 2,000 and 3,000 m (Dogger beta reservoir).^{11,12} One well bore is initially planned. Based on the knowledge that would be gained from that well, additional boreholes would be developed (two additional wells are already being considered). Wintershall Dea indicated in its permit application that “the final number of wells can’t be predicted”.⁶

The new boreholes would be non-vertical, extended-reach ones, with a length of probably up to 10 km, thereby “reaching the current limit of what is technically possible”, in the words of the Board of Trustees of the Wadden Sea National Park.¹¹ Additionally, the platform itself is 36 years old, which increases the risk of an accident happening.¹³ In fact, the platform already needed an emergency intervention – without an official permit – back in 2007: there was an acute destabilization danger due to high levels of hydrodynamic scour caused by drilling.¹⁴ With increasing sea levels and heavier storms to be expected due to the climate crisis, the risk will only increase further and further.

The National Park Law of 1985 made an exemption for the oil drilling projects in the Mittelplate back then, explicitly allowing oil and gas extraction “only if the drilling takes



Fig. 3: Oil and gas fields that are in the production stage, in the drilling permit application stage, or in the exploration stage in German and Dutch areas of the Wadden Sea World Heritage Site. Map: Deutsche Umwelthilfe

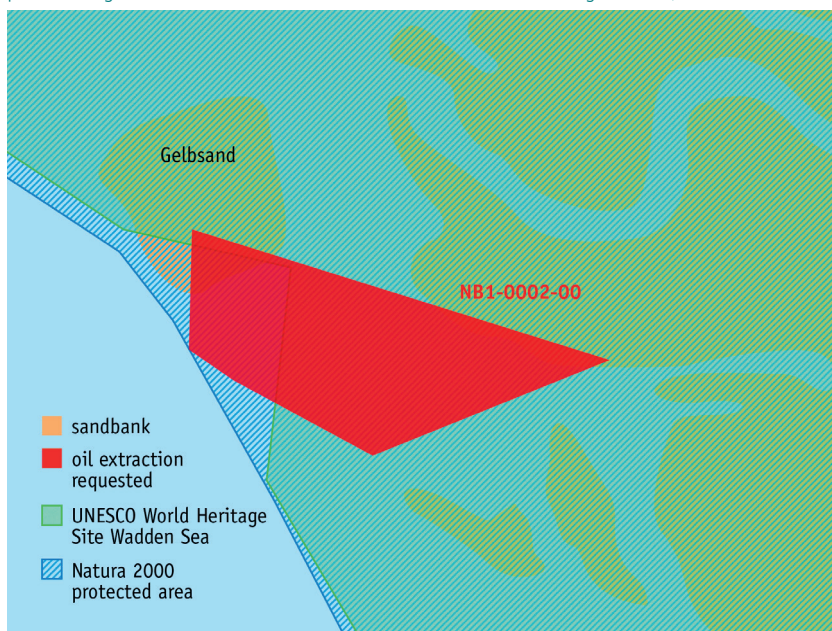


Fig. 4: Potential oil production field of Wintershall Dea corresponding to the drilling permit application “NB1-0002-00” from 2019, located in the German part of the Wadden Sea World Heritage Site. Map: Deutsche Umwelthilfe

place from the already-approved drilling platform Mittelplate-A, in consultation with the national park authorities". However, a legal opinion commissioned in 2020 by the Ministry of Energy, Agriculture, the Environment, Nature and Digitalization of Schleswig-Holstein reached the conclusion that the new drilling plans of Wintershall Dea from 2019 are most likely not allowed under the current National Park Law, revised in 1999. According to the interpretation that the legal opinion makes of the National Park Law, the new drilling sites are most probably not covered by the original exemption and should therefore not be authorized.¹³

An approval of the drilling permit would not automatically grant Wintershall Dea the right to start drilling right away: an operating plan would be also needed. According to the legal opinion from 2020 and another one from 2022¹⁵, the operating plan would need to comprise a planning approval procedure including an Environmental Impact Assessment (EIA), a Habitats Directive Assessment (HAD) and a public consultation process. The approval process of Wintershall Dea's drilling permit application from 2019 has been extremely opaque so far. For instance, it is not clear, from the documents at our disposal, whether an EIA was ever conducted for the framework operating plan (first approved in 1985) or for any of the main operating plans (normally renewed every two years) related to the Mittelplate. Wintershall Dea and the responsible mining authority are very reluctant to share information with the general public. The last main operating plan was allegedly to be approved on May 25th this year.¹⁶

Apart from being a World Heritage Site, the area at stake in the case of the drilling permit application from 2019 is located fully within the Wadden Sea National Park of Schleswig-Holstein, is a Special Area of Conservation (SAC DE 0916-391) and an EU bird reserve (SAP 0916-491). The OUV criterion (x) could therefore be greatly in danger in case of an accident (e.g. oil spill or blowout). The construction and regular operation of the additional wells would also entail increased noise and light pollution, and marine traffic. In addition, Wintershall Dea's plans of extending the drilling permit until 2069 – the other main demand in the drilling permit application from 2019 – not only flatly contradict the aforementioned climate-related findings of the IEA, but also the German climate neutrality date, 2045. This would irrevocably fuel the climate crisis, which would mean sea level rise, more frequent extreme weather events and significantly higher temperatures, among many other things. The latter would not only considerably increase the risk of an accident in the Mittelplate, but also drastically and inexorably disrupt, for example, the tidal systems, the coastline and the flora and fauna. In short, the sheer existence of the whole ecosystem,

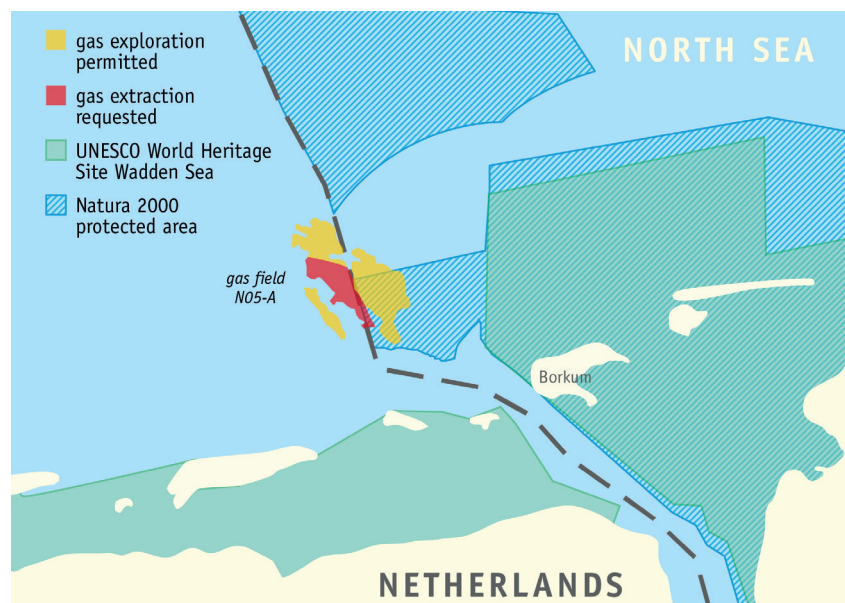


Fig. 5: The N05-A gas field and granted exploration areas of ONE-Dyas in the Dutch part of the Wadden Sea World Heritage Site.
Map: Deutsche Umwelthilfe

and therefore all three OUV criteria – (viii), (ix) and (x) –, would be under extreme threat.

2. Netherlands

The Dutch company ONE-Dyas, together with its partners Hansa Hydrocarbons and EBN, wants to extract at least between 2 and 4 billion cubic metres of gas about 20 km from the islands of Schiermonnikoog and Rottumerplaat (both in the Netherlands) and Borkum (in Germany) from the end of 2024 onwards for a time period of 10 to 25 years.¹⁷ The planned offshore platform N05-A (already approved in the Netherlands) will be located in the Netherlands about one and a half kilometres from German waters, and close to the Dutch Wadden Sea Conservation Area and the German Wadden Sea National Park of Lower Saxony (only 15 km away from the latter). More specifically, the N05-A gas field is located in the direct vicinity of the EU bird sanctuary V01 Lower Saxony Wadden Sea and adjacent coastal waters, which also include the Natura 2000 Borkum Reef Nature Reserve.

The gas field itself is located underground at a depth of 4 kilometres. The drilling field will cover both Dutch and German territorial waters and is partly in a Natura 2000 area. Moreover, ONE-Dyas is already looking for additional gas fields within the boundaries of ONE-Dyas' licenced exploration zone (Gateway to the Ems or GEMS).¹⁸

Platform N05-A will be powered through a cable from the neighbouring German wind farm Riffgat, and the gas produced will be injected to the Nordgastransport (NGT) pipeline through a new 13-kilometre pipeline through the Wadden Sea. The construction of the pipeline, the installation of the platform and the drilling activities will cover an area of 30 hectares on the seabed.¹⁹

The Dutch government has approved the project's EIA and licence and has issued a permit already. On the Germany side, the planning approval procedure has already been started at the Lower Saxony's State Office for Mining, Energy and Geology (LBEG in German).

The probability of the WHS being irreparably (directly and indirectly) damaged by this project is extremely high. The gas field is so close to the WHS that it may affect the migration patterns of fish moving from the North Sea to the Wadden Sea and vice versa, and there is a risk of earthquakes occurring, as were often the case in the nearby gas production sites in the Groningen area before the drilling was stopped. Furthermore, gas extraction can lead to a widespread sinking of the ground. This, in turn, can result in changes in sediment transport along the coast, with unintended ramifications.

Multiple other risks cannot be ruled out: for instance, shallow gas migration along the wells represents a potential methane emission pathway that currently is not recognised in any regulatory framework.²⁰ The dangers to the oyster reintroduction project in the area are also unknown,²¹ and the German North Sea Coast Protection Association even sees the drilling as a danger to shipping from further industrial plants on the high seas, which could have in turn severe consequences for the local environment in case of an accident.²² The climate crisis considerations and related consequences previously laid out in the German section also apply to the Dutch side of the WHS. Therefore, all three OUV criteria – (viii), (ix) and (x) – would be permanently and severely compromised, to say the least.

3. Conclusion

We contend that the very existence and the credibility of the protection of the Wadden Sea WHS and its OUV are under really severe threat from the dangers represented by the respective fossil projects from Wintershall Dea and ONE-Dyas. Beyond the many direct biodiversity and hydrogeological consequences and risks both projects would entail, they would also contribute to a terrible exacerbation of the climate crisis, which would in turn drastically and irrevocably affect all OUV criteria mentioned above – (viii), (ix) and (x).

We therefore call on the World Heritage Committee to recommend in its 45th session to:

- Review the cumulative impacts of the different fossil projects within the WHS, as UNESCO and IUCN have recently suggested;²³

- Add the Wadden Sea WHS to the list of World Heritage in Danger;
- Urge the States Parties of Germany and the Netherlands to submit, according to §172 of the Operational Guidelines, all planning documents for examination by IUCN, to publicly provide detailed information on the current status of the approval procedure for both of the drilling projects (e.g. for both projects an EIA – with special requirements set by the IUCN –, a HAD and a public consultation process are pending in Germany for the operating plan stage).
- Urge the responsible German authorities to not reach a decision concerning the approval of both projects before the Committee has taken a decision on the matter.

Endnotes

- 1 See <https://whc.unesco.org/en/list/1314>.
- 2 See <https://wintershalldea.com/en/where-we-are/germany/mittelplate>.
- 3 See "Net Zero by 2050" report, International Energy Agency, 2021.
- 4 See IPCC, 2022: "Climate Change 2022: Impacts, Adaptation, and Vulnerability", contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change, Cambridge University Press.
- 5 See IPCC, 2021: "Climate Change 2021: The Physical Science Basis", contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change, Cambridge University Press.
- 6 Application documents for the production permit provided by Lower Saxony's State Office for Mining, Energy and Geology (LBEG).
- 7 See <https://wintershalldea.de/de/wo-wir-sind/mittelplate>. (in German)
- 8 Exploration permit document provided by the LBEG.
- 9 Production permit document provided by the LBEG.
- 10 See coalition contract 2022-2027 for Schleswig-Holstein of the Die Grünen und the CDU. (in German)
- 11 See report from the Board of Trustees of the Wadden Sea National Park of Schleswig-Holstein, 28.11.2019, Husum. (in German)
- 12 See <https://www.earthdoc.org/content/papers/10.3997/2214-4609.201700981>.
- 13 Legal opinion from Prof. Dr. Ulrich Ramsauer and Dr. Henning Wendt, 2020.
- 14 Written response from the state government of Schleswig-Holstein (Ministry of Science, Economy and Transportation) to the information request from Marlies Fritzen (Die Grünen).
- 15 Legal opinion from Max Mayer, 2022.
- 16 Information provided by the LBEG.
- 17 See <https://www.gemsnorthsea.co.uk/>
- 18 See <https://www.gemsnordzee.com/nieuws/definitieve-vergunning-voor-gaswinning-uit-veld-n05-a/>. (in Dutch)
- 19 See video on <https://www.gemsnorthsea.co.uk/>. (in Dutch)
- 20 See <https://pubs.acs.org/doi/full/10.1021/acs.est.7b02732>.
- 21 See <https://www.rvo.nl/onderwerpen/bureau-energieprojecten/lopende-projecten/gaswinning-n05a/voorgeschiedenis> (in German)
- 22 See https://www.ndr.de/nachrichten/niedersachsen/oldenburg_ostfriesland/Inseln-kritisieren-Landtagsbeschluss-zu-Erdgas-Bohrungen,erdgas396.html. (in German)
- 23 See https://www.tweedekamer.nl/kamerstukken/brieven_regering/detail?id=2022Z10101&did=2022D20584.