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# ENVIRONMENTAL REPORT 2024

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Ports of Bremen / Bremerhaven

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Die Senatorin für Wirtschaft,  
Häfen und Transformation

bremenports  
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# ENVIRONMENTAL REPORT 2024



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# CONTENTS

<b>0</b>	<b>Greenports Highlights 2022/23 .....</b>	<b>1</b>
<b>1</b>	<b>Introduction .....</b>	<b>2</b>
<b>2</b>	<b>The ports of Bremen and their activities .....</b>	<b>4</b>
	2.1 Own sphere .....	7
	2.2 Influence on other spheres .....	8
	2.3 Selected KPIs for the ports of Bremen .....	9
<b>3</b>	<b>Environmental policy statement.....</b>	<b>14</b>
	3.1 New environmental policies and legislation.....	15
<b>4</b>	<b>Environmental aspects and performance of the ports .....</b>	<b>22</b>
	4.1 Significant environmental aspects.....	22
	4.2 Environmental information system and monitoring of requirements .....	23
	4.2.1 Reducing CO <sub>2</sub> .....	24
	4.2.2 Air quality .....	28
	4.2.3 Water quality .....	32
	4.2.4 Sediment quality .....	34
	4.2.5 Resources and Closed Substance Cycle .....	35
	4.2.6 Ship Inspections.....	42
	4.2.7 Other key performance indicators .....	42
	4.2.8 Environmental ship index .....	44
	4.4.2 “Green Focus Award 2023” .....	45
	4.3 Conformity review of environmental performance .....	46
<b>5</b>	<b>Brief description of environmental management structures .....</b>	<b>49</b>
	5.1 Organizational charts .....	49
	5.1.1 The senator for economic affairs, port and transformation.....	49
	5.1.2 bremenports GmbH & Co. KG .....	50
	5.1.3 Harbour Master Office (HBH) .....	52

5.2 Environmental responsibilities of key staff.....	54
5.3 Resources allocated specifically to port environmental management.....	55
5.4 Raising staff awareness at bremenports, public relations.....	56
<b>6 Selected examples of best Practice .....</b>	<b>58</b>
6.1 Tide2Use - Intelligent control of lock operations.....	59
6.2 Dredging spoils for dyke construction .....	61
<b>7 Contact information, publishers and Picture credits.....</b>	<b>64</b>
ABOUT THIS REPORT .....	65
Annex A: Register of significant environmental aspects .....	i
Annex B: Environmental Performance Indicators .....	ii
Annex C: Maps .....	iii

*List of figures*

Figure 1: The twin ports of Bremen/Bremerhaven in Europe .....	4
Figure 2: Geographical location of the Bremen twin ports.....	5
Figure 3: Containervessels at the Stromkaje in Bremerhaven .....	6
Figure 4: Role allocation in the twin ports of Bremen/Bremerhaven.....	7
Figure 5: Task distribution in port infrastructure and port superstructure .....	8
Figure 6: Aerial picture of the Überseehafen .....	9
Figure 7: Aerial picture of the “Fischereihafen” .....	9
Figure 8: Aerial picture of the “Industriehafen” .....	10
Figure 9: Aerial picture of the “Industriehafen” and the “Neustädter Hafen” .....	10
Figure 10: Measurements of immissions on land.....	16
Figure 11: At the BLG terminal at Nordhafen.....	17
Figure 12: Planning area Energy Port.....	17
Figure 13: Examples of ship calls in Bremerhaven with an ESI score (2024).....	18
Figure 14: Improper and illegal cleaning on failing antifouling coating .....	20
Figure 15: Excerpt from the Annex A.....	22
Figure 16: Environmental data in the HafenGIS .....	24
Figure 17: Trend for residual emissions.....	25
Figure 18: CO2e-Emissionen in Tons CO2e.....	25
Figure 19: Kick-off meeting.....	27

Figure 20: Absolute greenhouse gas emissions (Scope 1+2) ©BLG .....	28
Figure 21: Results of the measuring station in Bremerhaven.....	30
Figure 22: PFOS concentrations (mean values) in the port waters .....	34
Figure 23: Sediment sampling in the port .....	35
Figure 24: Amount of dredged material Überseehafen and Fishery Port .....	36
Figure 25: Bremen-Seehausen: dredging spoils on the dewatering fields.....	37
Figure 26: Handling dredging spoils (share) .....	38
Figure 27: Construction site.....	39
Figure 28: Garbage room on board a car carrier.....	40
Figure 29: Disposal of ship-generated garbage at the port .....	41
Figure 30: improper disposal of illuminants .....	42
Figure 31: Ecological Restoration of “Untere Lune” .....	43
Figure 32: Distribution ESI-Scores of ship calls .....	44
Figure 33: Share of ship calls with an ESI Score .....	44
Figure 34: “Laura Maersk” in Bremerhaven .....	47
Figure 35: Organisation of environmental matters at the Senator .....	49
Figure 36: Organization of environmental matters at bremenports GmbH & Co. KG .....	51
Figure 37: Organisation of environmental matters at the Harbour Master Office.....	52
Figure 38: Lock Oslebshausen .....	60
Figure 39 : Dredging spoils as building material .....	62

### *List of tables*

Table 1: Performance Indicators of the twin ports for 2021 at a glance.....	11
Table 2: Overview indicators .....	23
Table 3: Environmental responsibilities of key staff on the operational level .....	54
Table 4: Measures to raise employee awareness at bremenports .....	56
Table 5: Public relations measures on environmentally relevant topics .....	56

## 0 GREENPORTS HIGHLIGHTS 2020/21

### ***Award for compensatory mitigation project***

The port management company bremenports GmbH & Co. KG, in cooperation with various local water authorities and a citizens' association, conducted a project to revitalise the River Billerbeck and won third prize in a competition run by Lower Saxony to promote healthy rivers and lakes. This compensatory mitigation project involved the comprehensive ecological restoration of a stretch of roughly 5.5 km of the River Billerbeck.

### ***Joining forces for the Wadden Sea National Park***

At the 14th Trilateral Wadden Sea Conference in Wilhelmshaven, bremenports GmbH & Co. KG signed a joint declaration on behalf of the ports of Bremen in which 39 organisations endorse their intention of jointly protecting the unique Wadden Sea ecosystem. The aim is to promote and reconcile economic and ecological interests in the region.

### ***Launch of joint project sh2unter@ports***

This research and development project, launched in January 2022, is conducted in cooperation with various partners and addresses the shunting locomotives used at the ports in Bremen and Hamburg with the aim of converting them to hydrogen operations. The project investigates the prerequisites for the conversion, identifies the conditions required for refuelling and also clarifies safety and legal issues. The project was finalized in August 2024.

### ***"RV Uthörn" Climate-friendly coastal research***

In 2023 the coastal research vessel Uthörn operated by the Alfred Wegener Institute (AWI) was replaced by an innovative new vessel. The new Uthörn has been built to run on green methanol and will in future emit practically no carbon as it sails the North Sea. Combustion of the green methanol takes place in two specially designed engines which generate electrical energy to power the Uthörn. On introducing this new coastal vessel, the AWI has set a new benchmark for eco-friendly seagoing vessels. As part of the project, the vessel was refuelled with methanol in Bremerhaven. In future, refuelling will be handled by UTG Tanklogistik GmbH, a tank farm at Fischereihafen in Bremerhaven. The green methanol needed for operations is to be produced on site.

### ***Implementation of Columbus Quay compensatory mitigation measure***

A further compensatory mitigation project has been implemented on the banks of the River Lune as compensation for unavoidable impact on nature at the ports of Bremen. The riparian zone linked to the river by flood troughs has a total water area of 6600 square metres and will serve as spawning grounds for various species of fish. It will also upgrade the habitat quality for other species. This area is part of the "Pond bat habitat in the Bremerhaven/Bremen area" covered by the Habitats Directive.

### ***CO<sub>2</sub>-neutral Überseehafen project***

The target is to achieve completely CO<sub>2</sub>-free operations at the Überseehafen district in Bremerhaven as from 2035. Implementation began in October 2023 with a joint kick-off meeting of all stakeholders. As part of the project, a decarbonization pathway was identified for the participating companies and thus also for the Überseehafen as a whole. The project was completed in August 2024 and it was agreed to enter into a cooperation agreement for further collaboration between the stakeholders.



# ENVIRONMENTAL REPORT 2024

## Chapter 1

## 1 INTRODUCTION

This Environmental Report, like its predecessors, is intended to inform interested readers about the environmental impact of the ports of Bremen in Bremen and Bremerhaven. It also provides information on the implemented environmental management measures that are intended to avoid, reduce or offset detrimental effects. The ports of Bremen/Bremerhaven were certified as the first German ports in 2011 based on the so-called PERS<sup>1</sup> standard of the Ecoport Network<sup>2</sup>. This Environmental Report also comprises the sixth recertification under the auspices of the Ministry for Economic Affairs, Labour and Ports, which has been applied in October/November 2024. This documents again the successful environmental management which has been practised in the ports of Bremen for several years now.

PERS is an environmental management system developed specially for the demands in ports. It refers for example to voluntary instruments of preventive environmental protection for systematic registration and prevention of the environmental implications of a port. Accordingly, the report primarily addresses the demands that the certification process makes in terms of contents; it should be updated every two years and be available in the public domain.

With this reporting procedures, the aim is – also in the future – to illustrate the constant willingness of those responsible for the ports to work towards on-going improvements in the quality of the environment in and around the ports and to proceed with corresponding organisational improvements in their own sphere and in interaction with all players involved in the ports.

The port management company bremenports GmbH & Co. KG has launched a new sustainability initiative in 2022/2023. As part of this initiative the company is planning a new conference format to enhance the sustainability profile of the ports of Bremen and promote nationwide knowledge sharing in questions of environmental protection and climate change mitigation. The conference is targeted at players in the ports and logistics industries. This new conference format will ideally evolve into a key get-together for the industry and make a significant contribution towards promoting cooperation in connection with the climate crisis. The first conference in September 2023 was a great success with lots of positive feedback from the participants. bremenports GmbH & Co. KG is delighted to announce the second conference in September 2024 also in Bremerhaven. The plan is to continue the ENVOCONNECT every two years.

The new “Port Development Concept 2035” for the ports of Bremen was finalised in 2022. Various workshops were held to define a plan of action for the coming years in respect of the key issues for the future of the port community, such as digitisation, transition to green power and sustainability. Particular attention was paid to ecological and social sustainability. The process was transparent and encouraged active participation with the aim of ensuring good acceptance from the business community at the ports and in order to promote networking amongst the individual actors.

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<sup>1</sup> Port Environmental Review System

<sup>2</sup> This network has been part of the European Sea Ports Organisation (ESPO) since 01.01.2011.

# ENVIRONMENTAL REPORT 2024

## Chapter 2



## 2 THE PORTS OF BREMEN AND THEIR ACTIVITIES



**Figure 1: The twin ports of Bremen/Bremerhaven in Europe**

The ports of Bremen rank amongst the most important universal ports in Europe: Whether containers and vehicles, general and bulk cargo or dangerous goods and project cargo, the terminals at the twin ports can handle virtually all kinds of goods. Moreover, the Columbus Cruise Center in Bremerhaven is one of the most modern and efficient passenger terminals for cruise vessels.

The good location with prime connections to overseas and hinterland destinations is a major advantage for the ports. But it is above all the comprehensive experience, outstanding communications and IT skills and qualified workforce that make Bremen/Bremerhaven a competitive logistics centre with future potential.

Bremerhaven handles the latest generation of container vessels, car carriers and cruise liners. With water depths that can accommodate seagoing vessels, Bremerhaven offers ideal conditions for handling container traffic. The seaport is one of the leading automotive hubs in Europe and handles container vessels, car carriers and refrigerated fruit carriers, thus accounting for more than 80 per cent of the total throughput of the overall port group.

60 kilometres further south, the ports in the city of Bremen concentrate on transhipping and handling conventional general cargo, high & heavy as well as bulk cargo. This includes project cargo, wood and wood products, steel and steel products and also vast quantities of bulk cargo, such as ore, coal and grain. This location is home to Germany's leading freight village, GVZ, as well as many other logistics centres.

Bremen's freight village, GVZ, is a byword for a highly competent logistics cluster. This is where goods are transhipped between different transport modes, assembled into loads and made ready for transport. Shortly after it opened, the GVZ served as a template for the development of further freight villages in Germany and other European countries and it now has the largest high-bay warehouse anywhere in Europe. Diverse transport businesses, logistics firms and other service providers as well as logistics-intensive industrial and commercial businesses use the ideal connections to the airports, seaports and inland waterway ports in Bremen, the railway connections to and from the freight village and the nearby motorways and trunk roads to deliver their goods from Bremen to destinations all over the world.

In a European comparison, Bremen's freight village comes second and the transport and logistics hub at Neustädter Hafen remains a leading location in Germany. In fact, the GVZ is actually the Number 1 freight village in Germany.



**Figure 2: Geographical location of the Bremen twin ports in the so-called "Northwest Range"**

### ***Employment effects***

The ports of Bremen are a central element of the marine economy and of outstanding importance for the Federal Land of Bremen, the whole of Germany and, as an international hub in hinterland and transhipment traffic, also for other European countries. In addition to this key role in international goods trade, the port-related industry in Bremen generates high added value, which in turn leads to a high number of highly qualified jobs both in the region and throughout Germany. The overall macroeconomic importance of the ports of Bremen is evident when one considers their function as gateway to the global markets for German export and import businesses. In 2019, the gateway function of the ports of Bremen provided 344,900 industrial jobs throughout Germany, with the federal state of Bremen accounting for around 38,800 of these.

These nationwide effects in the port-related industry derive from exports via the ports of Bremen according to goods groups and the average employment intensity of these products. Bremerhaven's significance for the automotive export sector and parts logistics is also reflected in the regional structure of its effects on employment: more than half the jobs in Germany that can be attributed to the ports of Bremen are located in the federal states of Bavaria and Baden-Württemberg.

### ***Throughput trend***

In 2023, throughput at the ports of Bremen – as at the other German seaports – was defined by the weak European economy and geopolitical upheaval, above all Russia's war of aggression against Ukraine.

As a result, total throughput at the ports of Bremen was down by 8.6 per cent in 2023, reaching a figure of just under 58.5 million tons. Container throughput, which totalled 4.2 million standard containers in 2023, was also affected and decreased by 8.6 per cent year-on-year.

The cautious mood in the automotive market was also noticeable at what is still Europe's second-largest automobile terminal: in 2023, throughput in Bremerhaven amounted to just under 1.5 million vehicles, which corresponds to a year-on-year downturn of 10.5 per cent.

Although business at the port has already started to pick up again in 2024, a significant milestone was reached in 2023: whilst it is almost traditional in the automobile sector for around 80 per cent of hinterland traffic to be carried on rail, a symbolic figure could also be recorded for container traffic: rail's share of container hinterland traffic amounted to 51.2 per cent, which means that for the first time more than every second container in this segment was delivered to or collected from the ports by train. Moreover, the continuous expansion of the rail dispatch facilities at the port means that this share is likely to rise even further.

However, rail traffic was by no means the only segment that achieved higher figures at the ports. The cruise terminal also closed with a significant increase, with the number of passengers up to 322,257, more than ever before. In view of the 38.5 per cent increase compared with 2022, which was already a good year, cruise passengers thus demonstrated that after the pandemic, this type of travel is once again an undisputed growth sector.



**Figure 3: Container vessels at the Stromkaje in Bremerhaven**

A total of 5,816 ships called at the twin ports in Bremen and Bremerhaven in 2023. Container ships made up the largest share with 42 percent, followed by car transporters with 18 percent.

The United States remains the strongest trading partner of Bremen's ports. 6.2 million tons were exported to the United States. This puts the United States ahead of Norway (5.8 million) and China (4.8 million).<sup>3</sup>

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<sup>3</sup> Facts and Figures 2023

## 2.1 Own sphere

In the framework of this certification of environmental management, it is first necessary to describe the sphere of the public port authority. For the Free Hanseatic City of Bremen, the Senator for Economics, Ports and Transformation uses the operative organisations of bremenports GmbH & Co. KG and the Harbour Master Office (HBH) (cf. Fig. 3).

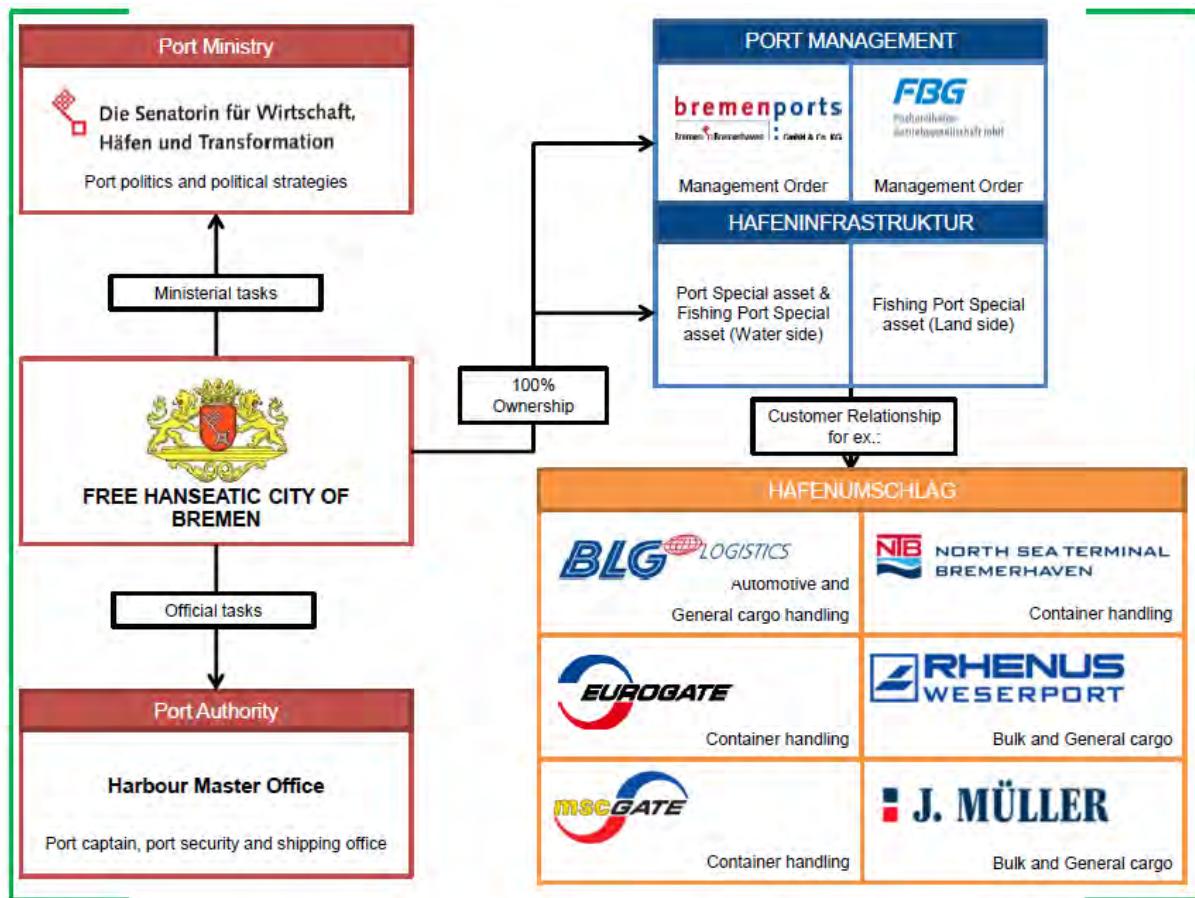


Figure 4: Role allocation in the twin ports of Bremen/Bremerhaven

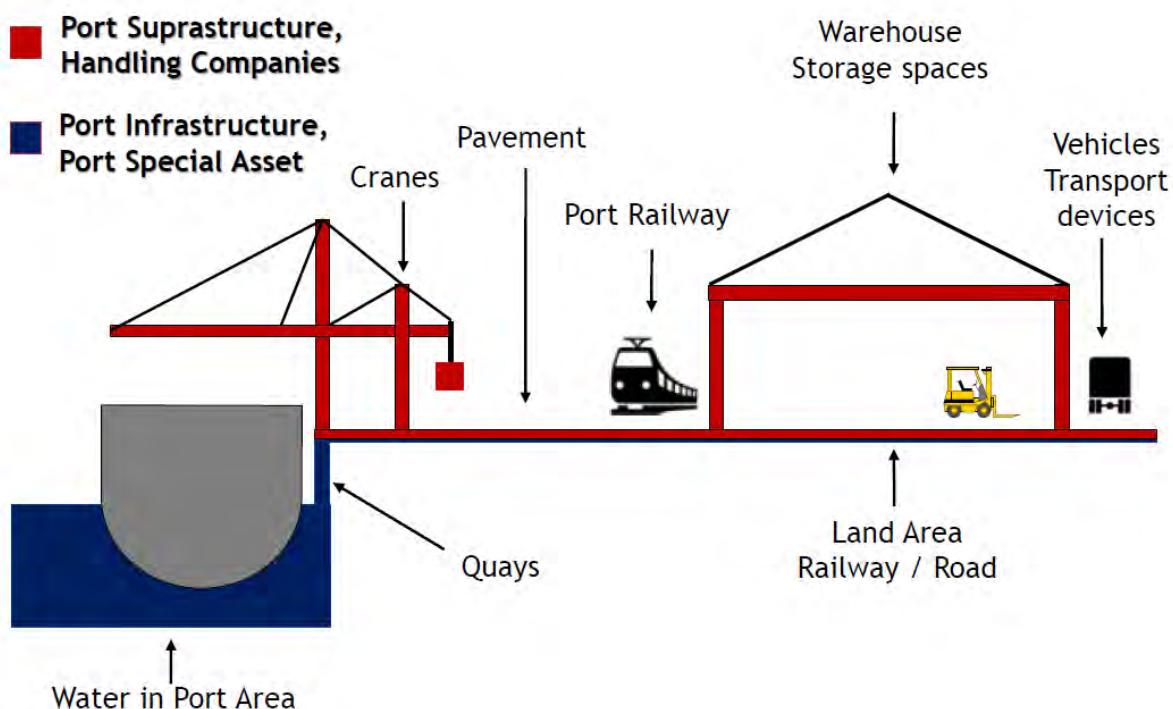
While the Senator for Economics, Ports and Transformation performs the ministerial tasks (including port policy and political strategies), which also include responsibility for the ports as special assets, covering the whole area of the ports, bremenports GmbH & Co. KG as a wholly owned subsidiary of the Free Hanseatic City of Bremen manages these assets for the Ministry. bremenports GmbH & Co. KG also manages the so-called port infrastructure. Furthermore, bremenports GmbH & Co. KG is responsible for the development, planning, expansion and maintenance of the ports and for marketing the twin ports.

Regulatory functions are performed by the Port Authority Bremen, including the tasks of the port captain, port safety and averting any danger, together with the shipping office. For other public law permits the responsible other municipal and state authorities have to decide.

The port areas (ports as special assets) refer to both sites in Bremen and Bremerhaven. The Areas include a large number of compensation sites caused and managed by the port that today forms the green infrastructure of the ports. A closer look at the actual port areas

encompassed in the special assets is provided in the Annex C – maps. These include the port areas in Bremen (and the international port area in Bremerhaven and the fishery port).

The municipality of Bremen and the state of Bremen in the case of the state fishery port in Bremerhaven are the owners of the municipal ports. The port infrastructure (see blue elements in Fig. 5) was financed by public funds and the port land areas were subsequently leased and/or sold to private users. From there on, the corresponding users are responsible for the so-called superstructure (see red elements in Fig. 5). In case of the fishery port the Fischereihafen-Betriebsgesellschaft mbH (FBG) takes care of the land-based port infrastructure.



**Figure 5: Task distribution in port infrastructure and port superstructure**

Private companies are responsible for operating the terminals, for actual handling operations in the port and for warehousing activities.

## 2.2 Influence on other spheres

In addition to the direct sphere (see chapter 2.1), the municipality of Bremen respectively the state of Bremen act as land owners and lessors under private law. Any influence on the users is restricted to the contents of the contracts negotiated between the parties. Possibilities of influence no longer exist in those places where land has been sold to private users. This applies for example to certain parts of the city port areas in Bremen.

Compared to the port's own sphere, the port authority thus has very limited influence outside the activities described above (chapter 2.1). The actual public law permits for usage are issued by the competent municipal and state authorities (with the exception of the port authority).

## 2.3 Selected KPIs for the ports of Bremen

The ports in Bremerhaven are located at the estuary of the River Weser into the North Sea. Access to the port coming in from the North Sea extends for 32 nautical miles and takes for a ship about two and a half hours. The tidal range, i.e. the difference between high tide and low tide, averaged at 3.73 m<sup>4</sup> in the five-year period from 2019 to 2023. At the moment, the port can only be reached regularly regardless of the tide by ships with a draught of 12.8m (Panmax) respectively 12.5m (Post-Panmax).

The following two figures show the Überseehafen and the Fischereihafen which are both located in Bremerhaven:



**Figure 6: Aerial picture of the Überseehafen**



**Figure 7: Aerial picture of the “Fischereihafen”**

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<sup>4</sup> WSA Weser-Jade-Nordsee, 28.02.2024, Angaben für Bremerhaven Alter Leuchtturm und Bremen Oslebshausen

The ports in Bremen City are connected to the North Sea by 72 nautical miles of the River Weser, a journey that takes five to six hours. The tidal range, i.e. the difference between high tide and low tide, averaged at 4.23m in the five-year period from 2019 to 2023. The maximum vessel draught in the tidal part of the port is outgoing 10.35m and incoming 10.7m. The following figures show the Industriehafen, the Neustädter Hafen and the GVZ which are all located in Bremen.



**Figure 8: Aerial picture of the “Industriehafen”**



**Figure 9: Aerial picture of the “Industriehafen” and the “Neustädter Hafen”**

**Table 1: Performance Indicators of the twin ports for 2023 at a glance<sup>5</sup>**

<b>2023</b>	<b>Bremerhaven</b>	<b>Bremen</b>	<b>Total</b>
<b>Infrastructure:</b>			
Area of port land <sup>6</sup>	<b>2,824 ha</b>	<b>1,833 ha</b>	<b>4,657 ha</b>
Navigable waters in the port <sup>7</sup>	<b>244 ha</b>	<b>302 ha</b>	<b>546 ha</b>
Total quayage	<b>28 km</b>	<b>10 km</b>	<b>38 km</b>
<b>Port business:</b>			
Cargo handling in 1,000 tons	<b>47,298</b>	<b>11,159</b>	<b>58,457</b>
Container handling in 1,000 TEU	<b>4,177</b>	<b>4</b>	<b>4,181</b>
Passengers	<b>322,257</b>	-	<b>322,257</b>

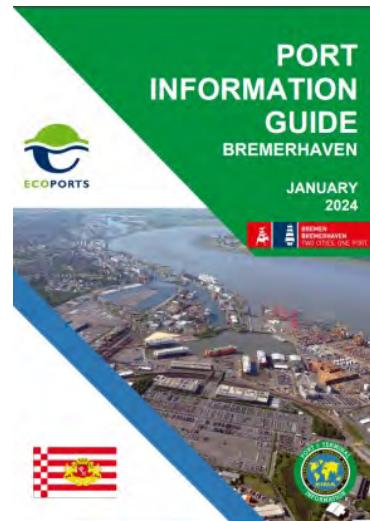
<b>Cargo handling and main commercial activities [handling in 1,000 tons]:</b>			
General cargo			<b>49,809</b>
Containers	<b>42,918</b>	<b>26</b>	<b>42,944</b>
Trade cars / number of vehicles			<b>1,478</b>
Bulk			<b>8,648</b>
Ore, stones, gravel			<b>5,918</b>
Coal, petroleum products			<b>1,655</b>

<sup>5</sup> Data source: Facts and Figures for the ports of Bremen and Bremerhaven 2023<sup>6</sup> Internal Data (Port Profile)<sup>7</sup> Internal Data (Port Profile)

## ***Further details***

Key KPIs for the ports of Bremen are constantly updated and published:

- Handling and port structure: Facts & Figures (issued every year Senator for economic affairs, ports and transformation; also as download at:  
<https://www.bremenports.de/en/ports>
- Shipping: Port information guides Bremen and Bremerhaven and information on ship's waste disposal and water ballast as download at:  
<http://www.hbh.bremen.de/sixcms/detail.php?gsid=bremen138.c.1842.de>





# ENVIRONMENTAL REPORT 2024

## Chapter 3

### 3 ENVIRONMENTAL POLICY STATEMENT OF THE MINISTRY FOR ECONOMIC AFFAIRS, PORTS AND TRANSFORMATION

As the second-largest port location in Germany, the ports of Bremen handle functions which are of central economic importance at both national and regional level. The Senate of Bremen is fully aware of its responsibility of reconciling not only economic, but also social and environmental concerns in the interests of sustainability. The environmental management system "PERS – Port Environmental Review System" was introduced in 2011 with regard to environmental issues. PERS documents the efficiency of the ports in terms of environmental protection, promotes continuous improvements and provides a framework for stipulating and reviewing the environmental targets. As part of that process, an Environmental Report is updated and published at two-yearly intervals. This practice satisfies the requirements of EcoPorts, the ESPO environmental policies and the actors at the ports.

*I herewith declare that the ports of Bremen*

- take steps over and above the legally required environmental standards in order to develop and implement **innovative environmentally friendly technologies and processes** in respect of the ports and shipping. Sharing knowledge with the actors involved continues to play a key role in that connection;
- have continued to ensure **GHG-neutral port infrastructure** since 2023 and endeavour to reduce emissions even further and thus minimise the necessary share of certified emission reduction credits. To achieve that target, plant and equipment, the fleet of motor vehicles and service vessels will be changed over to emission-free drive systems and renewable energy supply, new sources of energy developed and appropriate energy storage systems established;
- pursue the objective of making the ports of Bremen a **carbon-neutral and low-emission port location** by 2035. With that aim in mind, they support the endeavours of the port industry to evolve into a "green" hub within "green" transport corridors of a sustainable supply chain; the carbon-neutral Überseehafen project and the Fischereihafen climate alliance are just two examples. The development of suitable targets for reducing air pollutant emissions is also under investigation;
- actively promote the generation, storage, use and processing of **green hydrogen** for both the port industry and shipping and will establish appropriate import and distribution structures for supplying the hinterland. Integrating Bremerhaven into the hydrogen core grid is specified in the coalition government agreement and this target is being pursued in order to promote the establishment of a green hydrogen economy;
- are investigating the establishment of carbon export terminals in order to contribute to the establishment of transport chains which are dedicated to the disposal and, where applicable, reuse of CO<sub>2</sub> from **carbon capture processes** and plant in the interests of climate change mitigation;
- take a holistic approach to **digitisation, the use of artificial intelligence and the environment**: process optimisation should deliver benefits for the environment and the climate. High-quality data are a fundamental criterion for doing so and should be provided in a user-friendly and targeted manner;
- are expanding their knowledge of the environment. The present **environmental monitoring** activities will be continued and expanded to enable better evaluation of change and target achievement and made available for planning processes;
- regard compliance with the demands of **water protection** (Marine Strategy Framework Directive, Water Framework Directive) and **nature conservation** (Natura 2000, Wadden Sea World Heritage Site) as a fundamental boundary condition and take these aspects into account in port operations and port development. They aim to ensure that the environment is not impaired for man or nature to such an extent that the future of the port is in jeopardy;
- raise awareness of the demands of a **circular economy** in the port sector and endeavour to avoid waste which has a hazardous impact on the environment.

Kristina Vogt

The Senator for economic affairs, ports and transformation

### 3.1 New environmental policies and legislation

#### ***Climate protection and greenhouse gas (GHG) neutrality***

The amendment to Bremen's Climate Protection and Energy Act in 2023 has set binding target horizons for GHG reductions for the federal state: carbon emissions in the state of Bremen (including the steel industry) are to be reduced by at least 60% by 2030, by at least 85% by 2033 and by at least 95% by 2038 compared to the 1990 base year level. Based on the Climate Protection Action Plan of the Free Hanseatic City of Bremen's Climate Protection Strategy 2038, companies in which Bremen holds a majority stake, including bremenports GmbH & Co. KG, are called upon to fulfil their role model function and make a contribution to achieving the climate protection targets. In concrete terms, this means that the target of an 80% reduction in carbon emissions at these companies is to be achieved by 2030.

Bremen's Act on Climate Protection and Energy (BremKEG) provides the legal basis for the Climate Strategy 2038.

The Climate Strategy 2038, which is based on the findings of the final report of a select committee set up in 2020, states measures for achieving the target of climate-neutrality by 2038 as legally enshrined in Bremen's Act on Climate Protection and Energy (BremKEG). Four central elements are intended to ensure the success of this strategy: a climate programme for the Federal land of Bremen, a climate plan of action, a priority ranking of measures of particular urgency by the Senate and, of course, a financial plan. The strategy was last amended in April 2024 in response to various new developments, in particular the financial plan.

The plan of action also includes measures which impact on the ports, such as the "Carbon-neutral Überseehafen project, the establishment of electrolysis capacities at Fischereihafen, providing shore power connections for seagoing and inland waterway vessels and, in addition to many others, the survey on the development and establishment of a port-related hydrogen economy.<sup>8</sup>

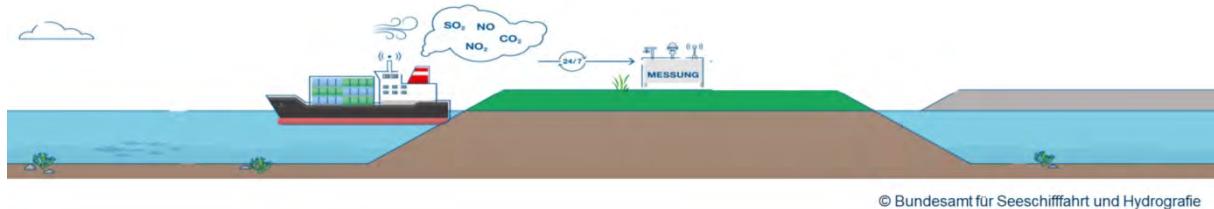
#### ***Revised Ambient Air Quality Directive***

In October 2023, the EU published a proposal for revision of the Ambient Air Quality Directive and the European Commission, Council and Parliament reached a consensus in February 2024, so that the new directive, which combines three previous directives, will enter into force as from May 2024. After that, the Member States are obliged to transpose the directive into national law within a period of two years. Transposition of the new legislation in the Federal Land of Bremen is the responsibility of the Senator for the Environment, Climate and Science.

The revised directive contains several significant changes. The EU limits are now closer to the WHO limits agreed in 2021. As from 2030, for instance, the limit value for PM<sub>2.5</sub> will be 2.5µg/l, the limit for NO<sub>2</sub> will be 20µg/l. It will be compulsory in future to monitor other anthropogenic contaminants and there will be additional measuring stations and an obligation to measure ultrafine particles. Roadmaps are to be developed to enable compliance with these limits in critical areas by 2030. If it is not possible to meet the deadline by 2030, the competent authorities will be obliged to draw up clean air plans.

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<sup>8</sup> [https://www.bremische-buergerschaft.de/drs\\_abo/2024-04-23\\_Drs-21-409\\_9d42d.pdf](https://www.bremische-buergerschaft.de/drs_abo/2024-04-23_Drs-21-409_9d42d.pdf)



© Bundesamt für Seeschifffahrt und Hydrographie

**Figure 10: Measurements of immissions on land**

### ***Significance for the ports***

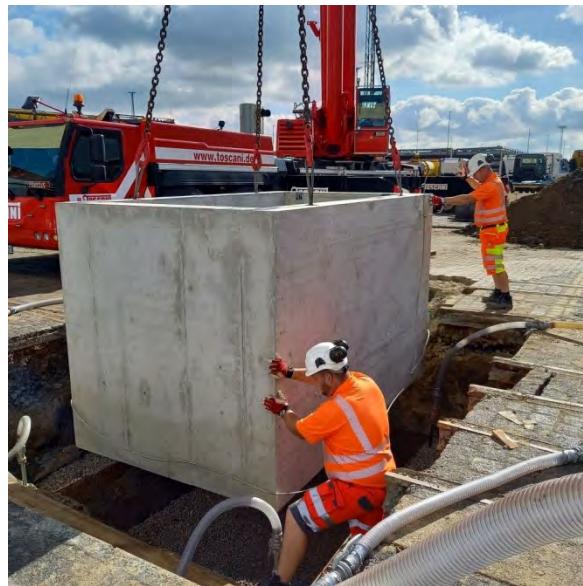
The ports are included in the definition of “air pollution hotspots”, which are to be subject to more stringent monitoring. The extent to which the ports of Bremen will be obliged to conduct additional monitoring has yet to be clarified. In the past, indicative measurements have proved to be a good gauge of air quality. For example, passive collectors have been used to classify the concentration of NO<sub>2</sub> in the immediate environment of Überseehafen. bremenports assumes that the mobility transition to alternative fuels at the ports and the supply of shore power will lead to a decrease not only in carbon emissions, but also of air other pollutants, thus improving air quality in the port environment.

### ***National application of the AFIR***

The AFIR – the Alternative Fuels Infrastructure Regulation – entered into force on 13.04.2024 and thus applies directly to the EU Member States and consequently also to German ports. This regulation is part of the EU’s “Fit for 55” package and is intended to help achieve the European climate goals. It stipulates binding targets for the establishment of hydrogen and charging infrastructure, LNG refuelling and shore power infrastructure as from a specific number of vessels calling at the port.

This also affects the ports of Bremen, so that permanent or mobile shore power supply facilities have to be available for seagoing and inland waterway vessels by the end of 2029 as well as an appropriate number of LNG refuelling points as from the end of 2024. Bremen and Bremerhaven also have to comply with the targets specified for inland ports. The establishment of this infrastructure is to be guided by market demand, port development and the refuelling facilities that are already available. In addition to expanding these facilities, the Member States also have reporting obligations, i.e. they are obliged to draw up National Policy Frameworks (NPF) by the end of 2025 in which the Member States inform the European Commission of how they plan to achieve the targets for climate-friendly shipping. The Federal Ministry for Digital and Transport has entrusted data monitoring within the scope of the AFIR reporting obligations to the company NOW GmbH.

All in all, the AFIR leaves many questions – including technical questions – unanswered as regards implementation of the targets at the ports, regarding incentives for bunker companies to establish infrastructure for alternative fuels or what kind of funding could be provided when aids are no longer available for shore power facilities.



**Figure 11:** At the BLG terminal at Nordhafen: installation of the cable shaft for the RoRo shore power system for the car carriers. The shaft will house the electrical connection point between the system at the quay and the converter system.

### *Energy Port*

The ports of Bremen have two locations in Bremerhaven and Bremen, each of which offers highly diverse and efficient services at the various terminals. In other words, the ports of Bremen have excellent conditions for promoting the global transition to green energy and actively shaping the future scenario by developing new sites and port areas. One of the central projects in that respect involves the planning and implementation of an “Energy Port” in Bremerhaven. The focus is on the establishment of a wind energy terminal in Bremerhaven. The planners are also investigating the option of converting Neustädter Hafen in Bremen into a carbon export hub by putting the existing port infrastructure to new use, as well as the development of a bunker terminal for alternative marine fuels on the Columbus peninsula.

The project of a wind energy terminal in particular has considerable potential for creating added value in the region. In addition the creating of necessary import infrastructure for hydrogen and hydrogen derivatives is being investigated. There are plans to link up the future hydrogen import location at Bremerhaven to the hydrogen core grid.



**Figure 12:** Planning area Energy Port

Extensive sites are available for development in the Fischereihafen port area in the south of Bremerhaven. With areas of more than 250 hectares, they are approved for development as industrial and commercial sites and have excellent sea and land traffic connections, making them ideal locations for highly diverse projects as part of the sustainable transformation process. They are fundamentally suitable for practically all kinds of use in connection with the transition to green power. At the same time, the project planners are examining how sites on the southern part of the Columbus peninsula can be used for the forthcoming developments, for instance by setting up tank farms and bunker services for alternative (low-emission) marine fuels to help the shipping industry achieve its decarbonisation targets. To ensure that the transition to green energy succeeds in Bremerhaven, the current plans naturally include aspects such as nature conservation and a comprehensive reconciliation of interests.

### **Environmental Ship Index**

The Environmental Ship Index (ESI) was developed by a working group of the main northwest European ports (including Bremen) on behalf of the World Port Climate Initiative (under the overall organisation of the IAPH) with the objective of enabling the comparison and assessment of emissions caused by shipping. It is a voluntary international rating system which allows ports to provide incentive programmes for environmentally friendly seagoing vessels. Ships can be registered voluntarily for the ESI and are allocated an individual ESI score calculated on the basis of various certificates and documentation and in accordance with the index formula.<sup>910</sup>

The ESI is continuously adapted in line with the latest statutory requirements (for example the use of fuel with the maximum sulphur content of 0.5%). In 2019, the ESI working group decided that in future, the ESI should also address the topic of noise pollution by vessels. In 2019 a project for a new ESI berth module was initiated by IAPH Cruise and Environment. The project is aimed at making data on the environmental performance of a vessel in terms of air pollutants and greenhouse gas emissions available on a global portal for users such as port operators. The portal uses data provided by the shipowners and operators on the vessel's emissions during a call at the port or when at berth.<sup>11,12</sup> This berth module is intended to facilitate decisions on appropriate measures to reduce emissions, such as the provision of shore power facilities, developing and adapting incentive systems or specifying "green" emission requirements during the time spent in port.

Beispiele Anläufe mit ESI Scores									
Zielhafen	ImoNr	Schiffssname	ESIAir	NOxScore	SOxScore	CO2Score	ESI Noise	OPS	Scrubber
Bremerhaven	9769128	CORALIUS	100	57,07	33,18	10,77	0	Nein	Nein
Bremerhaven	9925368	JASMINE LEADER	90,87	55,69	30,18	5	0	Nein	Nein
Bremerhaven	9925368	JASMINE LEADER	90,87	55,69	30,18	5	0	Nein	Nein
Bremerhaven	9818400	CONTAINERSHIPS ARCTIC	85,68	54,98	25,7	5	0	Nein	Nein
Bremerhaven	9881304	AUTO ACHIEVE	85,48	60,77	19,71	5	0	Nein	Nein
Bremerhaven	9642576	SAMSKIP KVITNOS	84,31	45,97	33,33	5	0	Nein	Nein

**Figure 13: Examples of ship calls in Bremerhaven with an ESI score (2024)**

Since 2020, ESI administration has been fully integrated into the International Association of Ports and Harbors (IAPH) where administration and operational management are in the hands of the Green Award Foundation, which is domiciled in the Netherlands.

<sup>9</sup> The fundamental principle is to reward vessels whose emissions of air pollutants and carbon outperform the legal requirements (IMO Standard).

<sup>10</sup> Homepage Environmental Ship Index: <https://www.environmentalshipindex.org/>

<sup>11</sup> IAPH website: <https://sustainableworldports.org/iaph-wpsc-cruise-project/>

<sup>12</sup> IAPH WSPS - CRUISE EMISSIONS PROJECT: <https://sustainableworldports.org/wp-content/uploads/IAPH-Cruise-Emissions-Working-Group-Implementation.pdf>

### ***Future development of the Environmental Ship Index (ESI)***

The calculation basis for the Environmental Ship Index is to be given a new focus. In future, the formula for calculating the subscores will also take into account the use of alternative and innovative technologies and the use of alternative fuels. This reflects the latest developments of the IMO Guidelines relating to greenhouse gases in shipping. It creates incentives for innovations and improved performance. While it will endeavour to maintain consistency with the present ESI philosophy, the scores of the individual seagoing vessels will fundamentally differ from their current ESI scores.

Workshops will take place over a transitional period to provide support for both incentive providers and recipients. The overall aim is to minimise the administrative work involved. This will also ensure that a data review is both possible and practicable.

The ports of Bremen reject the inclusion and positive assessment of nuclear-powered seagoing vessels. It is not intended to support ships with this type of propulsion at the ports of Bremen.

### ***IMO Ballast Water Management Convention***

The IMO<sup>13</sup> Ballast Water Management Convention was adopted in February 2007 to control the exchange and treatment of ballast water. The Convention entered into force in September 2017 and is intended to prevent the introduction and spread of invasive species. Ships have to compensate for changes in weight when cargo is loaded or unloaded. They do so by taking on or discharging water. This ensures the vessel's stability and safety. However, the water that is taken into the ship's tank also contains organisms which travel with the ship and, unless the water is treated, are released into the environment together with the ballast water at the vessel's destination. Amongst other things, these organisms can cause major ecological and economic damage in their new environment.

The Ballast Water Management Convention specifies how ballast water is to be managed. The D2 standard defines quality parameters that ballast water has to satisfy before it can be discharged into the marine environment. To satisfy these standards, ballast water treatment systems are installed on board the vessels to ensure that the water that is to be discharged meets the criteria of the D2 standard. After a transitional period, all relevant vessels will be obliged to have ballast water treatment plant as from 2024. This plant must be proven to reliably satisfy the D2 standard and the quality criteria.<sup>14</sup>

### ***CLEAN - environmentally friendly cleaning of ship hulls***

Preventing growth caused by biofouling from accumulating on ship hulls and emission-free biofouling management are two issues that play an increasingly important and complex role in shipping. Apart from the need to avoid the introduction of potentially invasive species, the reduction of carbon emissions thanks to lower fuel consumption by the vessels is also an important economic consideration, as shipping has been included in EU emissions trading since 2024. However, in order to prevent biocides, contaminants and microplastics from leaching into the water when the ship hulls are cleaned, different aspects of proactive biofouling management have to be taken into account.

The CLEAN project showed that the practice of proactive cleaning on abrasion-resistant coatings without an antifouling agent is technically feasible, saves fuel, reduces emissions and costs as the vessel no longer has to go into the dock once a year to have the antifouling coating renewed<sup>15</sup>. However, current practice has revealed that cleaning performed on

<sup>13</sup> IMO: International Maritime Organisation

<sup>14</sup> <https://www.umweltbundesamt.de/themen/chemikalien/biozide/ballastwasserbehandlung>

<sup>15</sup> <https://www.youtube.com/watch?v=QjJxIVb46jA>

antifouling coatings, even if proactively planned and carried out, inevitably means that higher quantities of biocides, contaminants and microplastics are admitted into the water.



**Figure 14: Improper and illegal cleaning on failing antifouling coating**

Our own tests performed in the course of the project showed that unless a collector system is in place, cleaning leads to the admission of substantial quantities of all components of an eroding biocide-based antifouling coating. This is not in compliance with valid national and international legislation.

Over the medium term, an obligation to change over to hard coatings – including provisions for a transitional period – should be part of a far-sighted environmental and climate policy. As in the case of the TBT ban or the goal of achieving climate-neutral shipping, this would make it possible to ban eroding biocide-based antifouling coatings over the long term and replace them with hard coatings that undergo regular cleaning. A sustainable and forward-looking move would be to amend the IMO Convention so that it bans the use of eroding biocide-based antifouling coatings and imposes standards for effective and eco-friendly cleaning methods as well as easy to clean coatings. Such an amendment could help protect the marine environment from the present immense quantities of contaminants resulting from antifouling coatings.

# ENVIRONMENTAL REPORT 2024

## Chapter 4



## 4 ENVIRONMENTAL ASPECTS AND PERFORMANCE OF THE PORTS

Depending on the location and surroundings, the expansion and usage of a port have a wide range of implications for the environment. According to and stated in our greenports policy there is a willingness to reduce environmental impacts as far as possible. However the certification to PERS still requires a focus on environmental aspects. For this purpose, as part of the PERS certification, a systematic consideration of significant environmental aspects is carried out first which is presented in Annex A: Register of significant environmental aspects".

### 4.1 Significant environmental aspects

In accordance with the requirements<sup>16</sup>, "significant environmental aspects" refer to those which are subject to

- statutory provisions or
- political aims.

**Annex A** shows the results of the analysis with a systematic description according to the spheres for the port administration:

- A:** own sphere of the port infrastructure;  
**B:** sphere of the port users

- influencing factors (port activities)
- paths of influence
- responsible organizations
- main legislation and applicable programmes and strategies
- legal and other requirements (measures)
- control measures with responsible organisation and remarks

In terms of function, this register is used for self-analysis and for developing suitable control instruments, and in the end also for providing transparent information to those interested.

Register of significant environmental aspects								
Twin-Ports of Bremen/Bremerhaven								
Ref. No.	Environmental impact by port activities	Exposure path-way / Impact on	Responsible organisation	Applicable legislation / strategies / programmes (green: international legislation, red: European legislation, blue: Federal legislation, black: state regulations)	Legal and other requirements	Control measures	URL	
<b>A: Port own aspects (Infrastructure)</b>								
A.0	Sustainable port management	All aspects of the environment	bremenports GmbH & Co. KG, Division Port Construction and Innovation	<p>RL 2014/95/EU of 22.10.2014 last amended 24.12.2014</p> <p>CS(EU) 2022/2454 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 14 December 2022 amending Regulation (EU) No. 537/2014 and Directives 2004/109/EC, 2009/64/EC and 2013/34/EU as regards corporate sustainability reporting</p> <p>Taxonomy Regulation of 18.06.2020 last amended 22.06.2020 last corrected 01.06.2023</p>			<a href="https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:02014L0095-20141205&amp;from=EN">https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:02014L0095-20141205&amp;from=EN</a>	
								<a href="https://eur-lex.europa.eu/legal-content/DE/TXT/PDF/?uri=CELEX:32022L2464">https://eur-lex.europa.eu/legal-content/DE/TXT/PDF/?uri=CELEX:32022L2464</a>
								<a href="https://eur-lex.europa.eu/legal-content/DE/HTML/?uri=CELEX:02020L0052&amp;from=EN">https://eur-lex.europa.eu/legal-content/DE/HTML/?uri=CELEX:02020L0052&amp;from=EN</a>

Figure 15: Excerpt from the Annex A

<sup>16</sup> PERS – Requirements and guidelines Version 5 (2016)

## 4.2 Environmental information system and monitoring of requirements

### ***Environmental performance indicators***

In the framework of environmental management, relevant environmental performance indicators have to be developed to verify compliance with the statutory and environmental requirements and to document progress made in improving the quality of the environment in and around the ports. According to the requirements and guidelines<sup>17</sup> the levels of consideration are:

**Table 2: Overview indicators**

<b>Operational performance Indicators (OPI)</b>	<b>Management performance Indicators (MPI)</b>	<b>Environmental conditions Indicators (EPI)</b>
Amount of dredged material	Use of regenerative energy port infrastructure and port management	Air quality
Emitted air pollutants from vessels in the port area	Recycling/Disposal of dredged material	Habitat index fpr the total port area
Noise from container port operations	Share fo ship arrivals with Environmental Ship Index	TBT <sup>18</sup> contamination in the sediments from the port areas
CO <sub>2</sub> emissions of the container terminal	Detected deficiencies at ship inspections	Water quality
	Compliance with sulphur limit regulations	

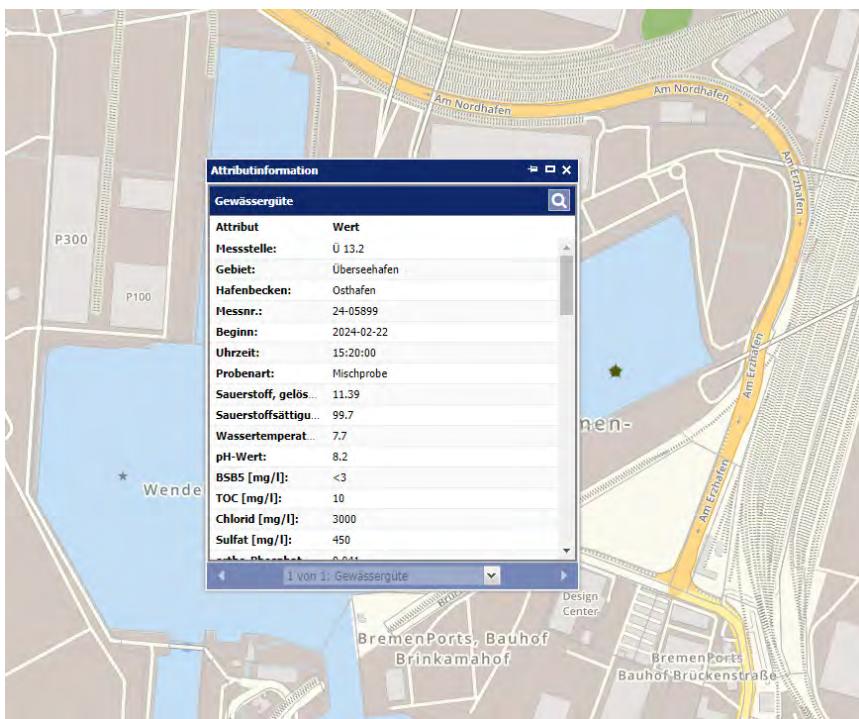
For all of the twelve indicators, the necessary basic data and statistics are available (cf. Annex B); at the same time, the evaluation of these indicators supports to verify environmental improvements.

The indicators considered provide information on the environmental impacts of port operations and progress towards environmental objectives, even if the actual impact of the public port management (bremenports GmbH & Co. KG) is limited.

In future, environmental data will be available in the port geoportal of bremenports GmbH & Co. KG. The port geoportal, a Web GIS for port players, will provide environmental data with different functionalities. The data can be used as a basis for decision-making, reporting etc. by public authorities, such as the port authority or the river police, or by business enterprises at the port. As well as a public database for guest users, the portal will also enable user-specific access to non-public data. The user and role system that is already integrated in the port GIS will be enhanced for the future port geoportal to raise access security.

<sup>17</sup> PERS – Requirements and Guidelines Version 5 (2016)

<sup>18</sup> TBT: tributyltin



**Figure 16: Environmental data in the HafenGIS on measuring point Ü13.2 in the Osthafen/Überseehafen in Bremerhaven**

In the following, the monitoring of the legal and policy requirements of relevant environmental aspects and, if applicable, the corresponding key figures are presented.

#### 4.2.1 Reducing CO<sub>2</sub>

The port management company bremenports GmbH & Co. KG has been greenhouse gas-neutral since 2013<sup>19</sup> and, pursuant to the Coalition Agreement, climate-neutral port infrastructure, i.e. including the “special assets”, was achieved by the year 2023. Further reductions in carbon emissions, which will lead to a climate-neutral port location, are to be initiated with the help of alliances between the stakeholders at the ports. The target year for achieving a climate-neutral port location set by the senator for economic affairs, ports and transformation is the year 2035.

#### *Port management company and port infrastructure*

The share of green power used by the port management company and the port infrastructure again reached 90% in 2022 and 92% in 2023.

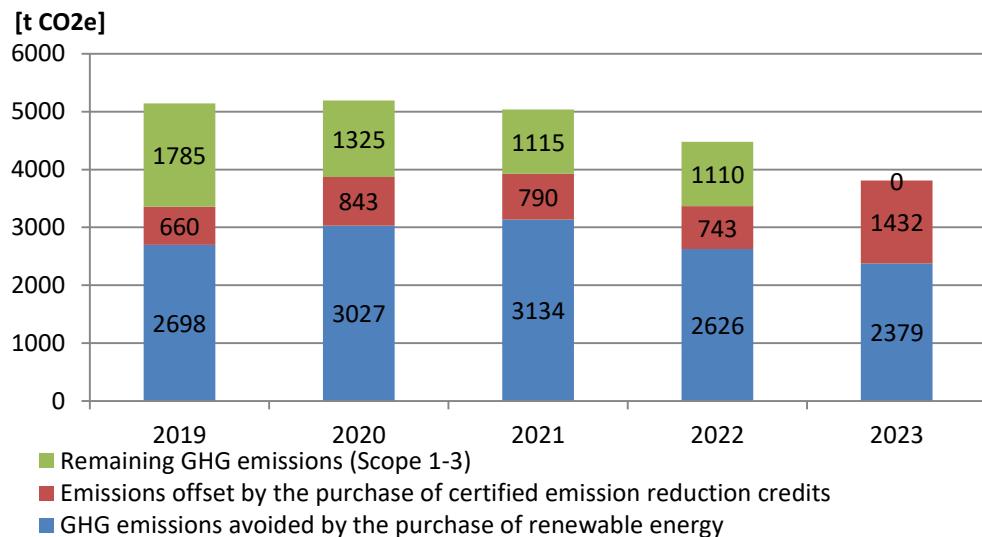
Since 2013, unavoidable emissions resulting from heat generation, the company fleet and business travel have been offset for bremenports GmbH & Co. KG by the purchase of certified emission reduction credits, so that the port management company (scope 1 and 2, also for business travel in scope 3<sup>20</sup>) has been greenhouse gas-neutral since the year 2013. A share of the emissions for the Special Assets has also been offset since 2017 in the form of certificates. bremenports energy management system also ensures that energy efficiency is continuously improved and total energy consumption reduced.

<sup>19</sup> In each case by the purchase of approved and externally certified emission reduction credits for unavoidable GHG emissions during the calendar year.

<sup>20</sup> Scope 1: direct emissions that are owned or controlled by the company, Scope 2: indirect emissions from purchased electricity and heat, Scope 3: emissions from the value chain, outside the company's control (e.g. business travel)

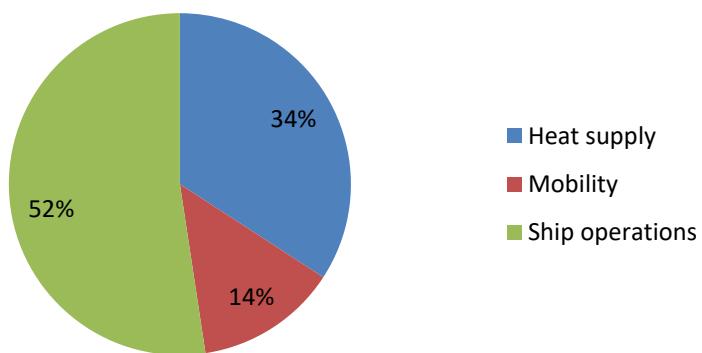
- All Scope 1 and 2 emissions for the special assets ports and Fischereihafen will also be offset for the first time in 2023.

Figure 17 shows the trend for residual emissions and the share of emissions reduced by the purchase of CER credits.<sup>21</sup>



**Figure 17: Trend for residual emissions and the share of emissions reduced by the purchase of CER credits for the port infrastructure**

Ship operations accounted for the greatest share (nearly 52%) of real-world CO<sub>2</sub> emissions in the year 2023 (without CER credits). Another 34% are attributable to heat supply, 14 % to the company fleet.



**Figure 18: CO<sub>2</sub>e-Emissions in Tons CO<sub>2</sub>e**

For the time being, however, the subsequent purchase of Certified Emission Reductions will remain indispensable to offset unavoidable emissions. By 2025 total final energy consumption is to be reduced by 15 per cent relative to 2015.

<sup>21</sup> <https://verra.org/programs/verified-carbon-standard/>

### ***Climate-neutral port location***

The cooperation of the terminal operators, the transport business inclusive of marine shipping, and the other business enterprises at the port is necessary to help us achieve our objective of becoming a climate-neutral port location until 2035. bremenports endeavours to set a good example in this respect and supports initiatives that help to achieve significant reductions for the port location and the transport chains and simultaneously boost the competitiveness and attractiveness of the ports. These measures include, for instance, significantly increasing the local generation of renewable energy, improving efficiency with the help of digitisation as well as promoting sector coupling and innovation to a hydrogen economy inclusive of renewable electricity-based fuels. Together with the relevant stakeholders, the senator for economic affairs, ports and transformation and bremenports aim to achieve GHG-neutrality for the port location by the year 2035.

It was in view of these objectives that bremenports conducted the SHARC<sup>22</sup> research and development project on behalf of the Free Hanseatic City of Bremen, in cooperation with partners from the scientific and industrial sectors. The aim was to prepare for a carbon-neutral port within the scope of the funding provided by what was then the Federal Ministry for Economic Affairs and Energy.

### ***Carbon-neutral Überseehafen project***

By 2035 at the latest, the entire operations at Überseehafen are to be completely carbon-free. The preliminary planning began in 2018 with the “SHARC” project (Smart Harbor Application Renewable Integration Concept). In March 2024, a proposal was presented for a new scheme for carbon-neutral operations at Überseehafen. All the stakeholders (a total of eleven port business enterprises that together account for 90% of total energy consumption at Überseehafen, representatives of two energy providers as well as representatives of the Senator for Science and Ports) are highly satisfied not only with this interim result, but also with the constructive and transparent cooperation.

The target of carbon-neutral operations at Überseehafen appears within reach thanks to the practically focussed findings resulting from the creation of a “digital twin”. The newly developed concept analyses Überseehafen as one overall location to ensure optimum exploitation of the advantages and synergies above and beyond individual operational level. In addition to the location itself, the participating companies at Überseehafen will each receive their own roadmap for the investments needed to achieve carbon neutrality by 2035. The roadmap also indicates the best time to make these investments from an economic point of view.

One of the first steps was to update and elaborate the energy requirements at the port that had been identified for the year 2022 in the preceding SHARC project and to include further business enterprises as well as the future requirements for shore power supply for ships. Several jointly defined scenarios for the period up to 2035 were also considered, such as pro rata carbon reductions, to serve as milestones for the digital twin. Operations up to the end of 2022 were based primarily on fossil energy sources and individual pilot projects for the use of new climate-friendly technologies. With the help of this newly acquired data and other parameters, the digital twin for the Überseehafen energy system, which is used to simulate the different options for the transition to carbon-free operations, has become even more realistic. In addition to the supply of shore power for seagoing vessels, it became apparent that the aspect of terminal logistics is a major challenge for the transition. The previous SHARC project had already clearly shown that this sector, from straddle carriers to the terminal railway, accounts for roughly 70 per cent of total energy consumption at the port.

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<sup>22</sup> Smart Harbor Application Renewable Integration Concept

However, the future supply of shore power for seagoing vessels will create a new major consumer which is likely to exceed the share of the terminal equipment.

The simulation results of the digital twin will specify the target scenario resulting from the project discussions in further detail. In future, for example, it will be possible to operate cargo handling equipment at the port with special dual fuel drive systems or climate-neutral e-fuels. Road vehicles will be electrified on a major scale. Heat generation will also be electrified using mainly decentralised heat pumps, and PtX applications could also play a role in future. A large proportion of the costs of this transition will refer to investments in port handling equipment and the large-scale development of renewable energy plant, as well as the energy carrier costs. Battery and heat storage systems as well as electrolyzers will round off these systems for increasing the self-consumption ratio at the port. By 2035, green power will account for approx. 95% of the energy mix at Überseehafen, thanks to the large-scale electrification of the container terminal, mobility and heat generation. Other components of the future energy mix will be climate-neutral fuels and hydrogen for specific mobility applications.

The simulation findings of the digital twin and typical decarbonisation strategies have led to a plan of action which shows the necessary steps and their influence on the carbon footprint of Überseehafen in 4-year stages. In the period concerned, carbon emissions will decrease with or without any defined interim targets as a result of replacement investments which will be necessary simply for technological reasons. It is fundamentally easier to decarbonise general electricity and heat supply, so that rapid progress will be achieved during the first few years of the project. It is assumed that mobility will continue to be responsible for high emission figures up to 2030 and will be fully decarbonised only when the container terminal is electrified.

Now that the project planning for carbon-free Überseehafen has largely been completed, the stakeholders intend to move on to implementation. One challenge will be to coordinate establishment of the plant needed to generate renewable energy, while supporting implementation of these measures at the companies, and to continue to facilitate dialogue on a local level. The parties intend to define the next joint steps in summer 2024.



Figure 19: Kick-off meeting

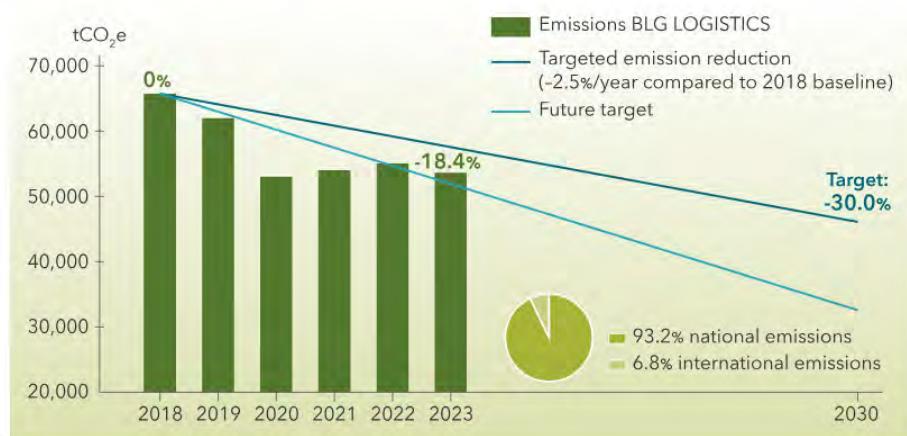
## ***CO<sub>2</sub> emissions of the container terminal***

Data on carbon emissions in kg for each container handled at the Container Terminal has been collected for the terminal operators Eurogate CTB, Eurogate TS, NTB and MSC Gate since 2008.<sup>23</sup> Eurogate has set itself the target of achieving carbon-neutral operations by 2040 in respect of Scope 1 and 2. By the year 2030, carbon emissions are to be reduced by 50% relative to base year 2022.<sup>24</sup>

BLG<sup>25</sup> has also set itself the target of becoming carbon-neutral at least on balance by 2030. To achieve that target, Scope 1 and 2 emissions are to be reduced by 30%, Scope 3 by 15%. The remaining emissions will be offset by funding high-quality climate protection projects. As from 2025, BLG will impose stricter targets to align them with the 1.5°C target stated in the Paris Agreement.<sup>26</sup>

### **Absolute greenhouse gas emissions (Scope 1 + 2)**

from 2018 to 2023 and target until 2030 (tCO<sub>2</sub>e)



**Figure 20: Absolute greenhouse gas emissions (Scope 1+2) ©BLG**

In 2023, greenhouse gas emissions could be reduced by 18.4% relative to 2018, thus clearly exceeding the target figure of 12.5%.

### **4.2.2 Air quality**

Furthermore the air quality in and around the ports is of great significance for the ports of Bremen. Emissions which can impair the air quality in the port and the surrounding area are generated primarily during the combustion of fuel by shipping and by feeder and hinterland traffic. In terms of volume, the emissions caused by maritime shipping at the ports play a key role. In addition to carbon emissions that have an adverse impact on the climate, large quantities of sulphur and nitrogen oxides and particulates occur, which have different negative effects on the eco-system and human health. A particular challenge when it comes to reducing these emissions is that ships operate almost exclusively with fossil fuels, are mobile and are distributed across diverse berths within the port area.

<sup>23</sup> CTB (Container Terminal Bremerhaven), NTB (North Sea Terminal Bremerhaven), RTB (Railway Terminal Bremerhaven), ETS (Eurogate Technical Services Bremerhaven), EGH (Eurogate Holding), SWOP Seaworthy Packing

<sup>24</sup> <https://reporting.blg-logistics.com/2023/en/sustainability-report/further-information/eurogate.html>

<sup>25</sup> BLG: BLG Logistics Group AG & Co. KG

<sup>26</sup> <https://reporting.blg-logistics.com/2023/en/sustainability-report/environmental/climate-protection.html>

### ***Onshore Power Supply***

In June 2020, the Bremen Senate decided to create a broad-based supply of shore-side electricity for maritime shipping in the ports of Bremen. The use of shore power will be mandatory for certain seagoing vessels from 2030. Bremen is thus complying with the requirements of the European Union, the Alternative Fuels Infrastructure Regulation (AFIR) and the Fuel EU Maritime Regulation.

- Eight stationary shore-side power plants are to be created for maritime shipping. The first plant is scheduled to go into operation at the end of 2024/the beginning 2025.
- In order to comply with European requirements, an **additional 12** shore power systems would have to be installed, funded and put into operation by the end of 2029.

In addition, all suitable inland waterway berths that have not yet been equipped are to receive a shore power connection. In 2022, the 20 shore-side power systems currently available for inland waterway vessels were expanded to include two shore-side power systems in Bremen's industrial ports. This would mean that all currently available inland waterway berths would be supplied with shore power from 100% green electricity. The use of these facilities was specified in the Schedule of Port Charges in 2021. This means that irrespective of whether or not they use the facilities, shipping companies are obliged to pay a flat rate for the power that is supplied in order to avoid the emissions generated by ship engines when in port.

The use of shore power systems for inland vessels has been mandatory since 2021.

There are various key figures and indicators for checking and monitoring air quality which are collected and tracked as part of the PERS environmental management system.

### ***Monitoring of sulfur limits for marine fuels***

The Harbour master office is responsible for monitoring the sulfur limits in ship fuels during the port stay. It is the aim to determine a 100% compliance with the sulphur limit. The inspections are carried out even if there are no grounds to suspect an infringement, although priority is given to vessels for which the European Maritime Safety Agency has issued an "alarm". Vessels are inspected, for instance, if the last inspection was more than one year ago. In 2023, 0.7 % (Bremerhaven) and 1.7% (Bremen) of all incoming vessels were inspected.

- ***No infringements were established in 2022 and 2023 in Bremen***
- ***No infringements were established in 2022 and 2023 in Bremerhaven***

The local authorities are also supported by the Federal Maritime and Hydrographic Agency (BSH) in prosecuting violations of the use of low-sulphur marine fuels (MARPOL Annex VI, EU Sulfur Directive 2012/33/EU). In July 2017 the Agency installed an air monitoring station for test purposes at the northern end of the container terminal at the port of Bremerhaven

with the support of bremenports. Following successful test operations, the BSH officially put the system into regular operation in autumn 2018.

This project measures the chemical composition of the exhaust gas plumes of passing ships. The BSH has also installed an AIS receiver (Automatic Identification System) which records the AIS signals transmitted by vessels within a radius of 25 km to ensure that the measured exhaust gas plumes can be reliably allocated to the correct vessels. The measurements of the exhaust gas concentration take place in real time.

The measured values are analysed automatically. The analysis has to satisfy defined quality criteria and it has to be ensured that the measured values can be allocated unambiguously to a particular vessel. If all the criteria are satisfied and any conspicuously high sulphur content is clearly attributable to a particular vessel, this is normally reported automatically to the prosecuting authorities one or two hours after the ship has passed the control point. If not all the criteria are satisfied, the measurement is evaluated by an operator at BSH on weekdays. In that case, it is decided on a case-by-case basis whether a report is to be forwarded or discarded. All the reports are sent to the Port State Control (PSC), the river police in Brake, Bremen and Bremerhaven. Reports for ships which are leaving the port are sent to the river police in Hamburg.

The fuel of ships entering the port is normally inspected by the river police, but it is not possible to carry out prompt inspection of the fuels of outbound vessels.

In 2023, the BSH measurement stations in Bremerhaven analysed a total of 3079 exhaust gas plumes from passing ships up to November.

The results of the measuring station in Bremerhaven are shown in Figure 18. The chart shows the number of analysed exhaust gas plumes and the share of suspicious vessels for each month since the measurements first began in Bremerhaven.

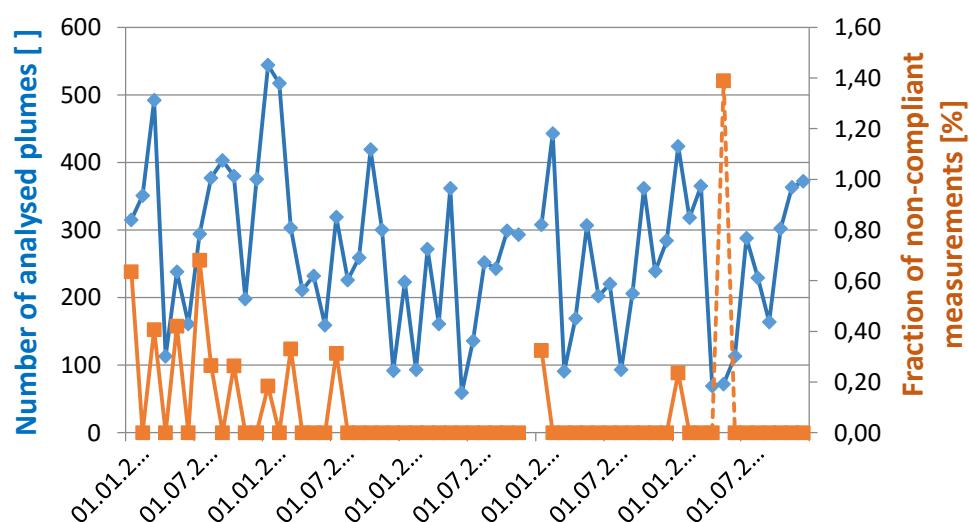


Figure 21: Results of the measuring station in Bremerhaven at the container terminal

- **Suspicious exhaust plumes were measured in 2023. The observed compliance rate was nevertheless 99,9%.**

## Air quality monitoring

Air quality in Germany is monitored by the individual Federal Laender and the German Environment Agency. Evaluation and assessment of the air quality is based on the limit and target values defined in the Directive on Ambient Air Quality and Cleaner Air for Europe<sup>27</sup>. These values are in turn based on the figures recommended by the WHO (World Health Organisation) for the protection of human health.

Monitoring the air quality in and around the ports is handled by the Senator for the Environment, Building and Transport on behalf of the Federal Land of Bremen. Since 1987, Bremen's air monitoring system (BUSY) has captured data to monitor the air quality at permanently installed measuring points in Bremen and Bremerhaven.<sup>28</sup>

The air monitoring station in Hansastrasse in Bremerhaven monitors the air quality in the urban background. This is within a radius of less than 500 m around the port (Kaiserhafen). The data for Bremen is captured at the station in Hasenbüren, which is also an air monitoring station for monitoring the urban background or assessing the air quality in the vicinity of the ports.

The figures for the average annual concentrations of air pollutants NO<sub>2</sub> and SO<sub>2</sub><sup>29</sup> as well as the particulate matter concentration for the air monitoring station at Hansastrasse in Bremerhaven and in Bremen-Hasenbüren are shown in the Annex B.

- ***The figures measured at the monitoring stations in the vicinity of the ports of Bremen have complied with the European ambient air quality limits for many years.***

The findings of an expert opinion on air pollutants at Überseehafen in Bremerhaven have been available since October 2022. This opinion again confirms that the limit values are observed at the port and in the port vicinity. It further confirms that marine shipping is the greatest emitter of air pollutants in the port area.

Since September 2023, the figures stated in the expert opinion for Weddewarden and on the northern border of Überseehafen container terminal have been reviewed as part of preventive environmental protection and in view of the stricter limits prescribed by the EU Ambient Air Quality Directive.

## Air pollutants emitted from vessels in the port areas (calculated)

The Institute of Shipping and Logistics has designed a simulation tool called Vessel Traffic which provide a basis for modelling and evaluating the emissions of the air pollutants nitrogen oxides, sulphur oxides and particulate matter as well as the greenhouse gas carbon dioxide generated by marine shipping, inland shipping and internal port shipping.

Since 2020, ship emissions have been calculated even more precisely at berth level by means of the IST list of vessels, i.e. with a detailed simulation of the vessel arrivals. This enables emissions to be calculated and compared at berth level. Emissions for each vessel were calculated according to the individual engine capacity (main engine as well as auxiliary engines) and the individual consumption figures for the engines (SFOC<sup>30</sup>). This expansion of the data used in the model meant that a sampling depth of more than 95% could frequently

<sup>27</sup> EU Directive 2008/50/EG, which was transposed into German law with 39th Federal Immission Control Ordinance

<sup>28</sup> Source: BUSY 2016 Annual Report

<sup>29</sup> NO<sub>2</sub>: nitrogen dioxide, SO<sub>2</sub>: sulfur dioxide, PM<sub>10</sub> bzw. 2,5: particulate matter with an aerodynamic diameter less than 10 or 2.5 µm.

<sup>30</sup> SFOC: specific fuel oil consumption

be achieved and calculation of the individual ships resulted in far higher accuracy than the calculations for previous years. The load factors of the auxiliary engines were also adjusted in line with the latest findings according to the type of analysis. These adjustments led to changes in fuel consumption by container vessels (e.g. by taking reefer containers into account) and by cruise vessels. Exhaust gas scrubbers and SCR<sup>31</sup> catalytic converters were also taken into account for each vessel.

These improvements in the data basis mean that the figures from 2020 onwards cannot be compared directly with the figures of previous years.

#### *4.2.3 Water quality*

As a maritime centre located on the North Sea and beside the Wadden Sea World Heritage Site, the ports of Bremen and their impact on local water quality play a key role. There is currently no systematic monitoring to classify the water quality at the ports in Bremerhaven and Bremen, but the use of these waters is monitored to check compliance with the permits granted by the water authorities.

Permission for the discharge of waste water is granted in accordance with the requirements of the Waste Water Directive or any other applicable technical regulations. If necessary, the water authority monitors compliance with the approved limit values. The waste water refers to cooling water or waste water from the shipyard docks. Precipitation from the water separation system is also discharged into the ports.

- ***When monitoring use of the port waters, no infringements were established which would have led to the initiation of measures by the environmental authority.***

As a rule, the environmental authority regular takes samples of precipitation that is discharged into the ports. As a rule, this is based on generally recommended values as there are no specific legal requirements concerning the discharge of precipitation. The figures reflect the pollution levels of these areas and are a reliable monitoring instrument for identifying any pollution of adjacent sites.

- ***Monitoring the direct discharge of precipitation confirms that the recommended values for precipitation are generally observed. Sporadic incidents of non-compliance are frequently a consequence of accidents.***

There are no significant incidents to be reported in connection with accidents, most of which were locally defined accidents that were cleared up directly by the terminal operators on their own initiative. All accidents at the quays and operating areas are reported to the Senator for the Environment, Climate and Science.

Infringements of legal regulations in connection with the treatment of waste water from ships is investigated, recorded and prosecuted by the Maritime Environmental Protection Division of Bremen's police force.

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<sup>31</sup> selective catalytic reduction

Random MARPOL inspections conducted by the river police test the ballast water and waste water treatment plant – where possible – on board the vessels. The reasons for the inspection are inadequate documentation or obvious maintenance faults, recorded faults or noticeable malfunctions or defects. Ad hoc inspections are carried out if the waste notification submitted by a vessel is assumed to be incorrect, e.g. if it contains no information about the capacity for waste water collection (collection tank volume).

- ***With regard to the treatment of waste water from ships (MARPOL Annex IV) there were 10 infringements committed within the jurisdiction of the ports of Bremen in the period 2022/23. Seven of these offences were reported on three vessels.***
- ***Three cases of discharge of untreated ballast water were reported to Bremen Port Authority.***

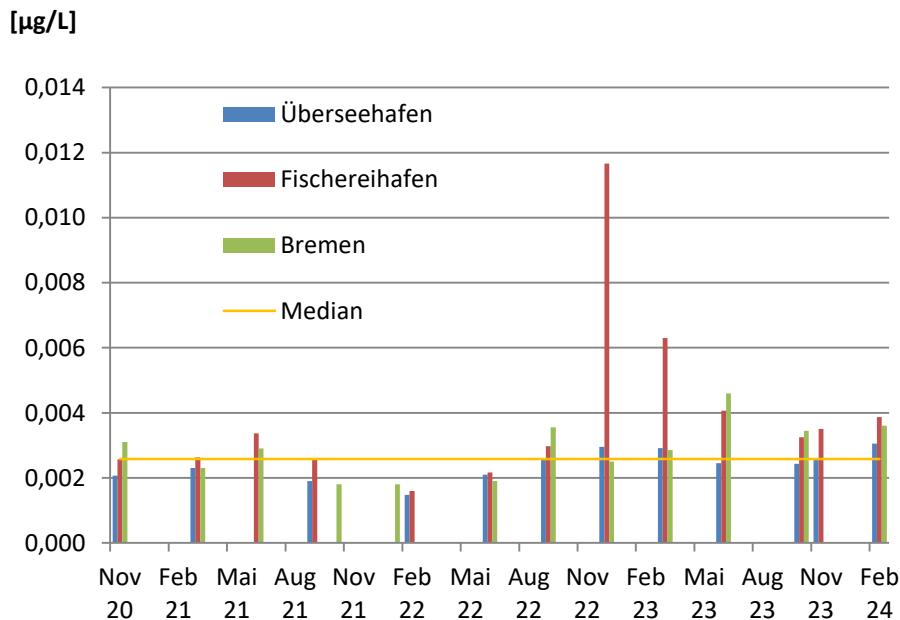
Sampling and chemical analysis of the water at selected areas of the port began at the end of 2020. The sampling locations were chosen in accordance with the sediment monitoring locations. Testing takes place during four campaigns per annum. The analysed parameters are defined in consultation with the environmental authority.

- ***The available measurement data confirms that the concentrations of the examined substances in the port waters are lower than are similar to the concentrations in the River Weser. The only exception is TBT, which occurs in significantly higher concentrations in the port waters because of the use of TBT<sup>32</sup> in ship paints.***
- ***The last measurement campaign 2022 revealed only one anomaly with regard to PFOS<sup>33</sup> in the Fischereihafen area, where concentrations were in some cases twice as high as those in the Weser at the measuring point in Hemelingen. In comparison with hotspot areas, such as the Grollander Ochtum in Bremen, which is affected by a contaminated area on the airport site, the concentrations are still within the normal anthropogenic background range. Moreover, these concentrations had decreased during the three subsequent measuring campaigns.***

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<sup>32</sup> TBT: Tributyltin

<sup>33</sup> PFOS: Polyfluorooctane sulfonic acid



**Figure 22: PFOS concentrations (mean values) in the port waters in the three port areas since measurement began in November 2020**

Owing to its highly stable carbon-fluorine bond, perfluorooctane sulfonic acid is a persistent organic pollutant, i.e. it is virtually indestructible. Moreover, it is bioaccumulative and toxic. PFOS was previously used in many consumer goods to make them oil and water repellent, i.e. to impregnate them. This substance was also used in (anti-fouling) coatings for ship hulls and in firefighting foams. Its use is meanwhile prohibited worldwide with only one exception; this was implemented in the EU by means of EU POP Regulation ((EU) 2019/1021), legislation which complies with the precautionary principle for the protection of human health and the environment. PFOS and its derivatives are listed as a priority hazardous substance in the Water Framework Directive and the Water Resources Act.

#### 4.2.4 Sediment quality

The sediment in Bremen and in the port areas behind the locks in Bremerhaven is analysed regularly in accordance with a defined monitoring framework as part of the dredging spoils management and PERS environmental management schemes. These analyses permit an assessment of the handling of dredging spoils.<sup>34</sup>

<sup>34</sup> The assessment for Bremerhaven is conducted pursuant to the "Joint transitional regulations for the treatment of dredged material in coastal areas" (GÜBAK), whereas sediment at the port of Bremen is assessed pursuant to the "Practical instructions for the handling of dredged material in inland waterways" (HABAB). The objective of these regulations is to create harmonised standards and criteria for the treatment of dredging spoils and thus minimise negative impact on the environment as much as possible.



**Figure 23: Sediment sampling in the port**

After analysis, dredging spoils from the port areas can either be relocated to other water areas or disposed of, depending on the results. The objective of transferring the sediment to another location in the marine environment is to leave the sediment within the system and consequently minimise any change in the sediment balance. This has both ecological as well as economic benefits, as the treatment and dumping of contaminated dredging spoils on shore is a far higher cost factor than relocation in water.

- ***Large volumes of sandy material from the ports of Bremen are already transferred to other locations; an improvement in the sediment quality of fine, silty dredging spoils is already noticeable in some port areas so that the option of relocation can meanwhile be considered.***

#### *4.2.5 Resources and Closed Substance Cycle*

The management of raw materials and resources also plays a key role at the ports of Bremen. The efficient and careful management of natural reserves is a key competence for the future viability of business enterprises. Increasing resource efficiency reduces environmental impact and improves their ecological footprint.<sup>35</sup>

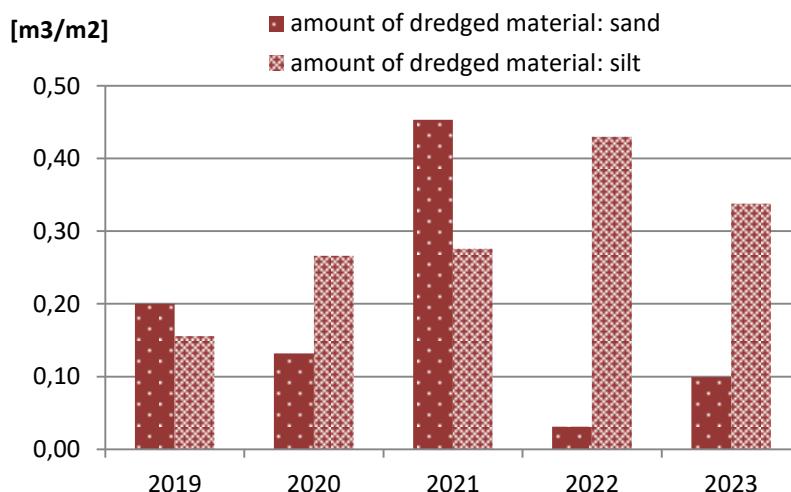
The German Closed Substance Cycle and Waste Management Act (KrWG) is a tool for saving natural resources. The objective is to establish a circular economy and ensure the protection of man and the environment in connection with waste generation and management.

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<sup>35</sup> Master's thesis of Steffen Wichern: Waste balance sheet for a port district based on the example of bremenports, Bremen University of Applied Sciences

## Dredging spoils

The dredging spoils that occur during port maintenance to ensure sufficient water depths account for by far the highest mass flows at the ports of Bremen and are a decisive quantity in Bremen's waste management plan.<sup>36</sup>



**Figure 24: Amount of dredged material Überseehafen and Fishery Port (silt) and Strom- and Columbuskaje (sand)**

The aim is to minimise the need for conventional dredging work and sediment removal as far as possible. In Bremerhaven, however, substantial sedimentation from the Weser estuary enters and settles in the port areas of Überseehafen behind the lock. There is very little scope for influencing the occurrence of this sediment, which cannot be avoided or further reduced.

Different legal regulations apply to the treatment of sandy and silty dredging spoils. As a rule, sandy dredging spoils can be relocated to other water areas subject to compliance with the legal requirements for relocation within the marine environment and by agreement with the competent approval authority. The same fundamentally also applies to silty dredged material. However, the silty dredging spoils from some areas behind the locks at the ports of Bremen still fail to satisfy the requirements for relocation within the marine environment, so that the material has to be disposed of on shore.

The German Closed Substance Cycle and Waste Management Act (KrWG) defines "disposal" as recovery or disposal. If the dredged material has to be disposed of on shore because of its contaminant properties, it first has to undergo treatment, i.e. dewatering. In the case of bremenports, dredging spoils are disposed of or treated at the Integrated Disposal Facility for Dredged Material (IBE) in Bremen-Seehausen. Dealing with the mainly very fine dredged material at this facility includes treatment, recovery and disposal. If the dredging spoils do not satisfy the criteria for recovery, the dewatered dredged material is disposed of at the mono-landfill site<sup>37</sup> in Bremen-Seehausen in compliance with the legal regulations specified in the Landfill Ordinance (DepV).

<sup>36</sup> Master's thesis of Steffen Wichern: Waste balance sheet for a port district based on the example of bremenports, Bremen University of Applied Sciences, p. III, Abstract

<sup>37</sup> Landfill Ordinance (DepV) §2 Definition of terms: mono-landfill: landfill or landfill section in Landfill Class 0, I, II or III, in which specific bulk wastes which are similar in terms of type, contaminant content and reactivity and also mutually compatible, are deposited unmixed together with other wastes.



**Figure 25: Bremen-Seehausen: dredging spoils on the dewatering fields**

If the treated dredging spoils satisfy the recovery requirements, various options are available for recovery and further use. These include, for instance, internal use for the construction of the mineral safety elements of the mono-landfill for dredging spoils (technical barrier, mineral sealant) or use in the construction of new, additional dewatering fields at the IBE (construction of peripheral barriers as well as safety elements). In addition to such internal use, some external recovery projects have also been successfully implemented in compliance with the legal requirements, for instance in the construction of dykes and landfills.

Within the framework of its sediment/dredging spoils management concept, bremenports endeavours to raise the share of material that can be recovered and to minimise the quantity that has to be disposed of. A high share of recovered material saves landfill volumes and thus means a longer life cycle for the dredged material mono-landfill. Moreover, using the dredged material as a substitute for constructing the safety elements of the mono-landfill in Bremen-Seehausen or as a substitute in external recovery projects saves resources on a significant scale as it eliminates the need to procure comparable material.

In recent years, a high share of previously silty dredging spoils from the ports of Bremen could be used for internal projects after suitable treatment. This can be attributed to a continuous improvement in sediment quality.

With regard to the share of dredging spoils with recovery option in relation to the total volume of dredging spoils for disposal, it can be noted that in 2023 there were 2-3 dewatering fields of 16 fields altogether at the Integrated Disposal Facility in Seehausen where the material was unsuitable for further use as the TBT content was too high. This has also occurred in the past. However, the total disposal volume has decreased significantly as it has been permissible to relocate dredging spoils from Überseehafen to the North Sea since last year. The share of material requiring disposal is therefore higher, while the share with recovery option is lower than in previous years.

A higher share of silty dredged sediment from the areas behind the locks in Bremerhaven has also been relocated to other water areas, i.e. in the River Weser, since 2021.



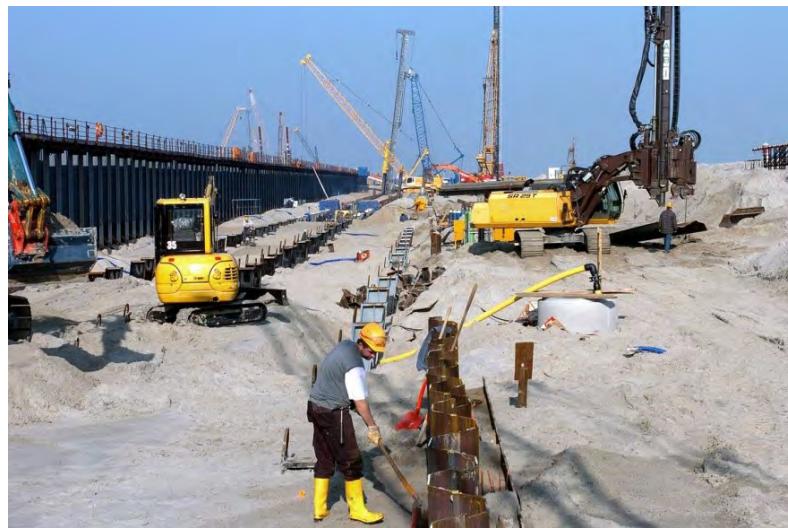
**Figure 26: Handling dredging spoils (share)**

**External** use in dyke and landfill construction projects has also been achieved on a not insignificant scale. bremenports continues its endeavours to raise the share of external use over the long term and thus make a sustainable contribution to environmental and climate protection, to keep the landfill volume as low as possible and save resources.

### *Waste management construction projects, maintenance and regular operations*

The port management company bremenports is responsible for a number of tasks relating to planning, construction and maintenance of the port infrastructure and operation of the technical facilities. Waste occurs in all sectors of the business, whether in the course of individual projects or during regular operations. In legal terms, bremenports GmbH & Co. KG is thus a waste producer and in some cases also collects and transports small quantities. Various laws have to be observed in respect of the different types and quantities of waste. Pursuant to the German Circular Economy Act, waste is defined as all substances or objects which the holder discards, intends to or is required to discard<sup>38</sup>. The law distinguishes between hazardous and non-hazardous waste. Special requirements apply to the supervision and disposal of hazardous waste. Legal responsibility for waste disposal covers the entire life cycle from the origin, storage and transport through to the final disposal, recovery or reuse of the waste.

<sup>38</sup> [www.gesetze-im-internet.de/krwg/\\_3.html#:~:text=\(1\)%20Abf%C3%A4lle%20im%20Sinne%20dieses,entledigen%20will%20oder%20entledigen%20muss](http://www.gesetze-im-internet.de/krwg/_3.html#:~:text=(1)%20Abf%C3%A4lle%20im%20Sinne%20dieses,entledigen%20will%20oder%20entledigen%20muss)



**Figure 27: Construction site**

Pursuant to the German Ordinance on Waste Management Officers, bremenports is obliged to appoint a company waste management officer who is responsible for all tasks and obligations in that respect. The remit of the waste management officer covers monitoring the waste routes from the origin to recovery or disposal of the waste. The waste management officer is obliged to keep an appropriate waste catalogue. In the case of waste occurring in the course of construction or maintenance projects which take place within a prescribed period of time, the waste management officer is involved from the initial planning phase to provide advice on the treatment and correct disposal of the different categories of waste. The Waste Management Officer subsequently presented the project on the basis of the waste disposal concept and the available expert opinions of the waste monitoring authority, for instance on hazardous substances and waste quantities.

A waste register in accordance with the Industrial Waste Regulation is kept for each individual project. If necessary, the waste management officer is obliged to document proof of disposal of hazardous waste using the electronic waste records procedure. The project management keeps separate records of the proof and documentation of the disposal of non-hazardous waste. Specific disposal procedures have to be established and maintained for waste categories that occur regularly at the workshops and from shipping and dredging operations. Both the disposal as well as the company responsible for the disposal of all waste categories is monitored in constant consultation with the waste management officer.

Seminars on specific waste management topics are organised as required to inform staff from the different business units. In addition to seminars on basic waste management, special training courses are also provided on dealing with waste from building sites, on the Substitute Construction Materials Ordinance and on the disposal of railway track ballast. Amongst other things, this is intended to ensure that all employees are familiar with the obligation to separate waste, to ensure compliance with the recycling quota and the provision of closed containers on building sites to prevent the uncontrolled admission of waste into the environment.

### ***Ship waste***

Monitoring notification of waste by the vessels pursuant to MARPOL is the responsibility of Bremen Port Authority (HBH). The waste management plan for the ports of Bremen and Bremen's ordinance on port reception facilities specify the regulations for the treatment of

ship-generated waste and cargo residues.<sup>39,40</sup> The provision and use of port reception facilities is intended to reduce in particular the illegal disposal of ship-generated waste and cargo residues at sea and thus counteract marine pollution with garbage and plastic.<sup>41</sup>

Pursuant to the law on the provision of port reception facilities for ship-generated waste and cargo residues, port owners are obliged to provide sufficient reception facilities for ship-generated waste and cargo residues. Moreover, skippers are obliged to hand over all on-board ship waste to a port reception facility for disposal before leaving the port.

The current Schedule of Port Charges for the Federal Land of Bremen<sup>42</sup> includes an obligation to pay a flat-rate charge, depending on gross tonnage, for the disposal of non-hazardous operating waste pursuant to Annex V of the Marpol Convention (such as cleaning rags), irrespective of whether or not such waste is actually disposed of at the port (no special fee system). Vessels which pay the above charge are provided with receptacles for the separation of waste. The disposal of ship-generated waste at the ports of Bremen is currently and will continue in future to be entrusted to certified waste disposal companies which have sufficient logistics and technical plant capacities to ensure the due and proper disposal or recovery of all quantities and categories of waste. These waste disposal companies are listed in the waste management plan.

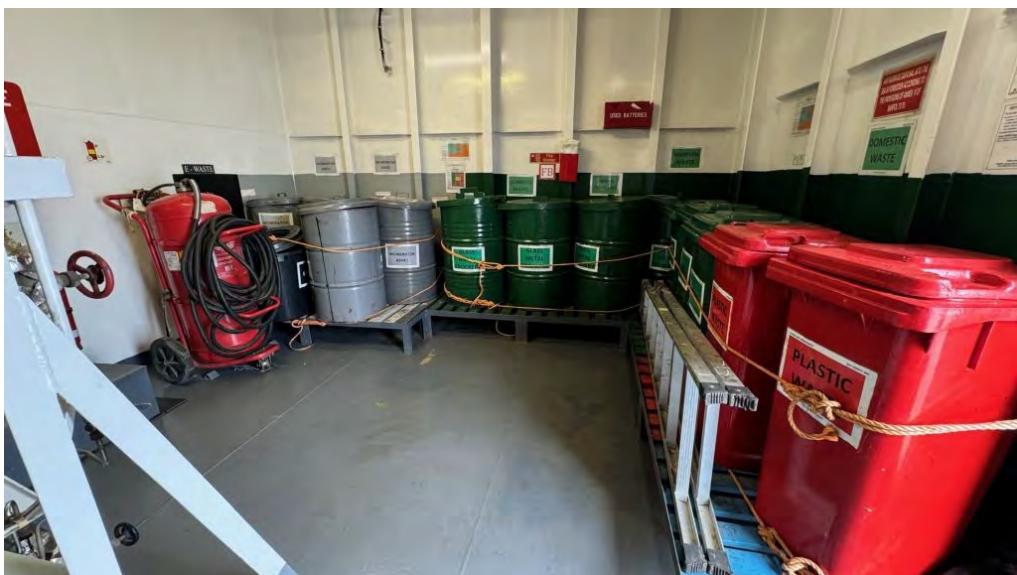


Figure 28: Garbage room on board a car carrier

<sup>39</sup> Waste management plan for the public ports of the Free Hanseatic City of Bremen: - Last updated 2017: [https://www.transparenz.bremen.de/metainformationen/bekanntmachung-des-abfallbewirtschaftungsplans-fuer-die-offentlichen-haeften-der-freien-hansestadt-bremen-stand-2017-153420?asl=bremen203\\_tpgesetz.c.55340.de&template=20\\_gp\\_ifg\\_meta\\_detail\\_d](https://www.transparenz.bremen.de/metainformationen/bekanntmachung-des-abfallbewirtschaftungsplans-fuer-die-offentlichen-haeften-der-freien-hansestadt-bremen-stand-2017-153420?asl=bremen203_tpgesetz.c.55340.de&template=20_gp_ifg_meta_detail_d)

<sup>40</sup> Bremen act on port reception facilities for the discharge of ship-generated waste dated 24 November 2020 (Bremen law gazette 2020, p. 1584): [https://www.transparenz.bremen.de/metainformationen/bremisches-gesetz-ueber-hafenauflageinrichtungen-fuer-die-entladung-von-abfaellen-von-schiffen-bremisches-schiffsabfall-entsorgungsgesetz-bremsaeg-vom-24-november-2020-160043?asl=bremen203\\_tpgesetz.c.55340.de&template=20\\_gp\\_ifg\\_meta\\_detail\\_d](https://www.transparenz.bremen.de/metainformationen/bremisches-gesetz-ueber-hafenauflageinrichtungen-fuer-die-entladung-von-abfaellen-von-schiffen-bremisches-schiffsabfall-entsorgungsgesetz-bremsaeg-vom-24-november-2020-160043?asl=bremen203_tpgesetz.c.55340.de&template=20_gp_ifg_meta_detail_d)

<sup>41</sup> Agreement to cooperate in a coalition government for the 20th term of office of Bremen's Parliament 2019-2023, p. 82

<sup>42</sup> Hafengebührenordnung für die Bremischen Häfen in Bremen und Bremerhaven: [https://bremenports.de/wp-content/uploads/2017/03/Hafengeb%C3%BChrenordnung\\_01012020\\_DEU.pdf](https://bremenports.de/wp-content/uploads/2017/03/Hafengeb%C3%BChrenordnung_01012020_DEU.pdf)

## Statistics

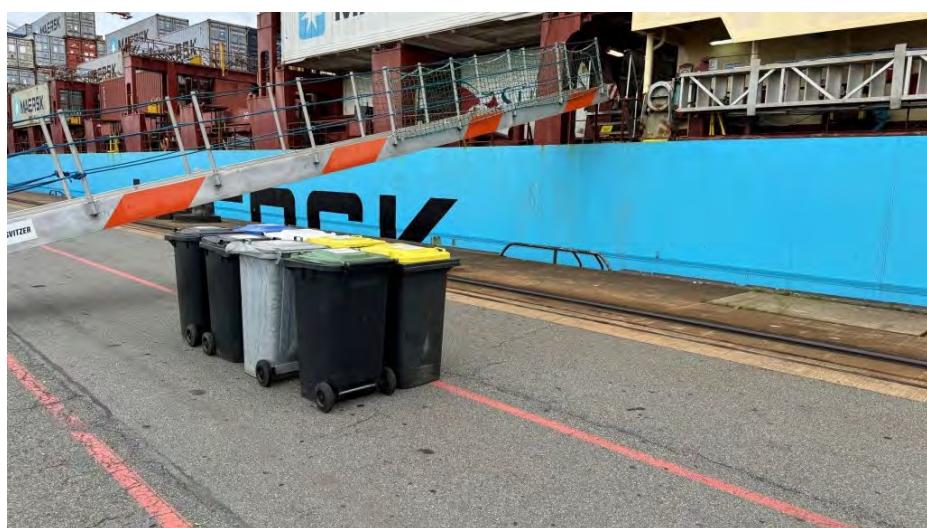
### **Disposal of ship-generated oily waste pursuant to Annex I MARPOL Convention, including but not limited to oil sludge resulting from crude oil washing and bilge oils:**

In 2023 a total of 1180 vessels disposed of waste occurring during ship operations pursuant to Marpol I at the ports of Bremen, i.e. 20% of the total vessels that called at the ports of Bremen in 2023. Ships disposing of such waste in Bremerhaven account for a share of 24%, which is higher than in Bremen (9%). The average quantity per ship or gt is also higher in Bremerhaven. This can presumably be attributed to the larger average vessel size and the car carriers and container ships that call at the ports regularly (liner services).

**Disposal of ship-generated garbage pursuant to Annex V MARPOL Convention:** In 2023 a total of 5350 vessels disposed of garbage pursuant to Marpol V at the ports of Bremen, i.e. 92% of all vessels calling at the ports. The average disposal quantities per ship or gt are comparable for this category. The willingness to hand over waste at the ports remains at a high level.

Many shipping companies that operate liner services seek detailed information about the waste charges of the individual ports and accordingly instruct their crews about which types of waste can be disposed of inexpensively at which ports. The crews thus develop waste disposal routines. The crews of tramp vessels<sup>43</sup>, on the other hand, which make up a high share of the vessels calling at the ports in Bremen-City, are frequently not informed about the waste disposal options (without additional costs).

The crews are increasingly aware that handing over ship-generated waste in accordance with European law is mandatory at every port and that this requirement can be waived only in very few exceptional cases. The objective of the ports of Bremen is that explicit or implicit disposal orders will no longer be the norm, but that exemption from the waste disposal obligation will be the exception.



**Figure 29: Disposal of ship-generated garbage at the port**

In respect of the occurrence of waste on shore at the ports, priority is always given to the avoidance of waste rather than recycling or disposal. The business enterprises located at the ports, such as cargo handling companies and manufacturing industry, are urged to design their operating and production processes so as to ensure that they keep the generation of waste to a minimum.

<sup>43</sup> Tramp shipping: voyages without a fixed schedule and without a fixed route in the form of chartered voyages.

#### *4.2.6 Ship Inspections*

Bremen Port Authority inspects incoming vessels not only as regards the sulphur contents of their fuel, but also for further irregularities. Inspections are carried out on a random basis and based on assumptions of a higher probability of an irregularity.

In 2023, a total of 11% (Bremen) and 16% (Bremerhaven) of all ocean-going vessels that called at the ports of Bremen were inspected. An overview in Annex B shows the recorded infringements for the year 2023 as example.



**Figure 30: improper disposal of illuminants**

#### *4.2.7 Other key performance indicators*

##### *Noise from container port operations*

The trend for the noise development indicator resulting from operation of the Container Terminal in Bremerhaven is shown in the list of KPIs in Annex B. The indicator has not changed significantly.

##### *Habitat-Index for the total port area*

The expansion of port infrastructure entails a number of adverse effects on the marine and coastal habitats at the Weser estuary and the neighbouring Wadden Sea. The objective is therefore to minimise land consumption for infrastructure projects. If it is impossible to avoid land sealing and construction on natural sites, numerous legal requirements have to be observed before infrastructure projects can be approved and executed. Because the ports of Bremen are located at the mouth of the River Weser, directly adjacent to Lower Saxony Wadden Sea National Park, comparatively strict requirements have to be fulfilled when implementing compensatory mitigation measures.

The habitat areas for which the ports of Bremen are responsible have remained at the same high share of 38% in relation to the total port area in hectares.

### ***Project Example: Ecological Restoration of "Untere Lune"***

Another compensation project was implemented on the banks of the Lower Lune in autumn 2023. Several side waters were created behind the shoreline, which are connected to the Lune via flood troughs. The resulting lake landscape along the river with a total water surface area of 6,600 m<sup>2</sup> will serve as a spawning ground for various fish species. The habitat conditions for other animal species such as amphibians, reptiles, birds and otters will also be improved. The small lakes are also part of the 'FFH area' 'Pond bat waters in the Bremerhaven/Bremen area'. This rare animal species will benefit from the measure.

In order to provide an improved habitat for as many species as possible, a diverse, near-natural transition from the water to the land area was created beyond the water bodies - and planted with self-harvested seeds from the immediate neighbourhood.

Instead of working with purchased seed mixtures, the harvest of the 'Wiesefix' was used. This device, which uses a rotating bristle to loosen and capture the seeds from grasses, has been providing bremenports with a supply of seeds since 2021, which are spread in various places.

As a result, the new lake landscape already looks as if it has always been there thanks to the native vegetation - and is accordingly well received by the wildlife: Grey herons, great egrets, sandpipers and various species of geese and ducks are already regular visitors.

The project that has now been completed serves to compensate for the construction of the new Columbus Quay in Bremerhaven. However, the upgrading of nature and landscape in this measure is so great that 45% of the area can be used 'in reserve', so to speak, to compensate for future construction measures in the harbour. A total of 20,000 cubic metres of excavated soil had to be moved to create the waterways, which is now being used elsewhere as an important raw material. The excavated clover soil was initially stored temporarily at the Luneplaten dyke and will later be used for dyke construction measures in Bremerhaven.



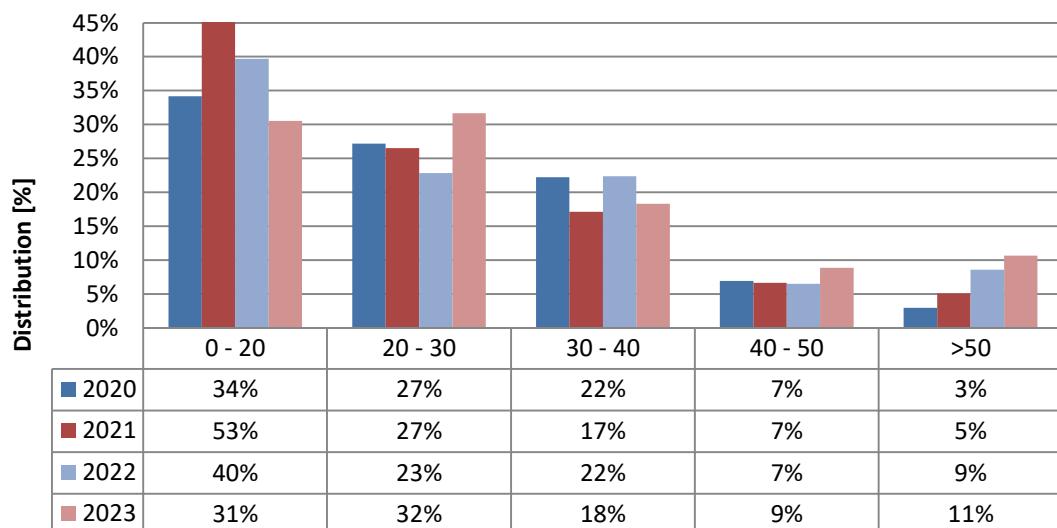
**Figure 31: Ecological Restoration of “Untere Lune”**

This section presents the procedures for monitoring of policy requirements as there is the reduction of CO<sub>2</sub> and the environmental ship index (ESI).

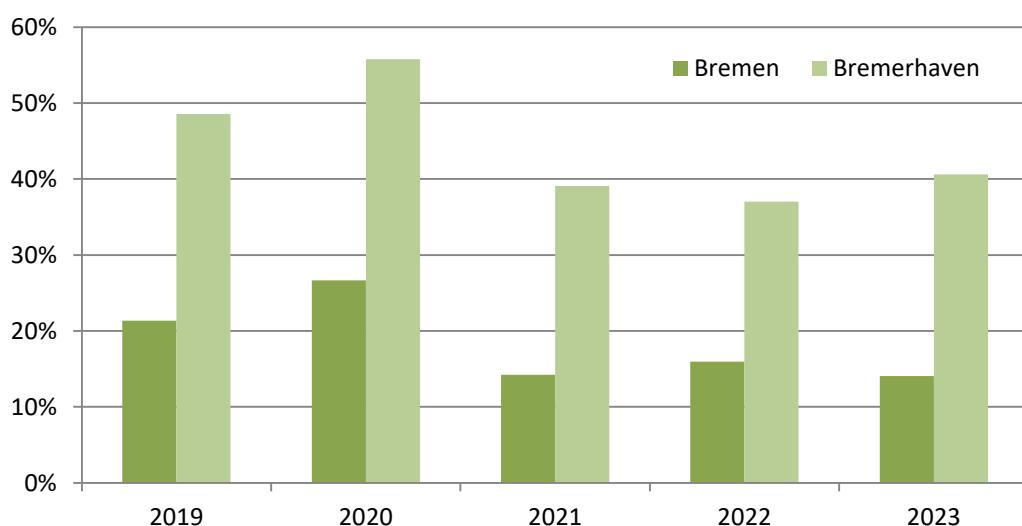
#### *4.2.8 Environmental ship index*

The latest statistics published by the World Port Sustainability Program for the Environmental Ship Index (ESI) show that the number of ships in the global ESI database is rising again. By 1 April 2024, 6350 seagoing vessels, with an average ESI score of 31.1, and 63 incentive providers (primarily ports) were registered in the system. The share of seagoing vessel that called the ports of Bremen and Bremerhaven in 2023 is 33%.

Since 2020 there have been an increasing number of vessels calling at the port with an ESI score of more than 50 points.



**Figure 32: Distribution ESI-Scores of ship calls Ports of Bremen and Bremerhaven**



**Figure 33: Share of ship calls with an ESI Score at the port of Bremerhaven and Bremen**

#### 4.4.2 "Green Focus Award 2023"

bremenports has presented a special award in two categories once a year since 2014: one Green Focus Award goes to the vessel with the lowest emissions that called at the ports of Bremen in the preceding year, the other to the shipowner or charterer of the fleet with the lowest emissions overall.

The "Oscars" for clean shipping for the year 2022 were presented at the ENVOCONNECT 2023, the sustainability conference organised by bremenports: the awards in both categories went to the CMA CGM Group, a global player for marine, land, air and logistics solutions, firstly for Stellar as the "cleanest" container vessel, and secondly for the entire CMA CGM fleet. Sustainability is a prime concern at CMA CGM: the group has not only set itself the target of net zero carbons by the year 2050, but is already taking practical steps right now to use the best currently available solutions for reducing emissions, such as liquefied natural gas (LNG), biomethane and biofuels. CMA CGM already has a fleet of 32 particularly low-emission ships that run on biomethane and e-methane. There are plans to raise that number in future and also add dual-fuel container ships that can operate with low-carbon methanol.

The decision for the CMA CGM Group as the winner in both categories was based on the scores for 2022 in the Environmental Ship Index (ESI). The SMA CGM container vessels surpassed all others with a total score of exactly 76.21 ESI when calling at Bremerhaven in 2022. By comparison, the next "cleanest fleet" obtained a score of 59.76 points. As far as the "cleanest vessel" was concerned, CMA CGM was well ahead of the field: with a score of 77.16, the container vessel "CONTAINERSHIPS STELLAR" was also miles ahead of her competitors.<sup>44</sup>

#### *Green Focus Award 2024*

As from 2024, the Green Focus Award will literally become more personal with an additional award in the new category "Commitment". This award will go to someone who played a particular role in promoting sustainability at the ports of Bremen in the preceding year. Climate protection ultimately depends on each and every individual, which is why bremenports also wants the Green Focus Awards to honour someone whose personal commitment inspires and motivates others to do their part for sustainability.

The winner of the new Green Focus Award in the category "Commitment" will be officially announced during the Envoconnect, the only sustainability conference to date to address this issue from the viewpoint of the ports and logistics sectors. All three nominees will have the chance to present their commitment to sustainability right there and then and encourage others to follow their example.




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<sup>44</sup> <https://www.bremenports.de/presse/green-focus-award-fuer-saubere-schiffahrt-vergeben>

## 4.3 Conformity review of environmental performance and legal requirements / Achievements and planned activities

As the port management company, bremenports GmbH % Co. KG satisfies the current legal requirements (also) with regard to the environment. However, the port management company is not responsible for compliance with the statutory requirements throughout the entire port location and by the port business community. At the ports of Bremen, this is the responsibility of Bremen Port Authority (HBH), the environmental authority, the licensing authorities, the trade and industry inspectorate, the harbour and river police and Bremen police force.

However, bremenports is in permanent contact with the responsible authorities, not only within the scope of the regular PERS certification process, but also endorses a dialogue amongst the various stakeholders in order to ensure compliance with the applicable legislation. bremenports also demands and promotes cooperation at the port in respect of environmental requirements, in particular as regards the goal of achieving a climate-neutral port location.

This environmental report demonstrates in chapter 3 with Annex A the detailed analysis of environmental impacts, the legal standards for port-related activities and environmental policies for the ports. The EPI's and the monitoring of legal and policy requirements in chapter 4.2 show the relevant indicators and aspects that are monitored for several years (cf. Annex B). If not, explanations are given and it can be assumed that in the coming years the trends get better. So far, the public port administration has been able to meet the legal standards of environmental legislation.

Furthermore, according to the environmental policy, the ports of Bremen are taking steps over and beyond the legally required environmental standards and pursue with the greenports sustainability programme an ambitious continuous improvement policy.

### **Environmental priorities (2023):**

Sustainable development at the ports of Bremen and Bremerhaven refers to a continuous improvement process. The social, ecological and economic targets we have set ourselves as part of the transition to a sustainable port are outlined in Bremen's environmental policies. Specific measures for the achievement of these targets are stipulated in the Port Development Concept, the list of measures relating to sustainability at bremenports and the Special Asset Ports and Fischereihafen and in this Environmental Report. All plans and reports are published regularly on our website.<sup>45</sup> The publication of these measures ensures that all stakeholders and the general public have access to transparent information about our previous and planned activities.

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<sup>45</sup> <https://www.bremenports.de/>

Further measures are planned to improve our environmental performance:

- Carbon-neutral Überseehafen project
- EnergyPort
- Smart port and digitisation, various R&D projects
- Test areas with biocide-free coating on a bremenports service vessel and potential implementation of biocide-free coatings on new-build vessels
- Continued use of dredging spoils as building material and recycling treated dredging spoils which are suitable for further use wherever possible
- Potentially extending air monitoring in the port area: sensory test site at the container terminal
- Greenfocus Award: inclusion of modal split
- Continuing water quality and sediment monitoring and presentation of monitoring results on the port geoportal and making the monitoring findings available to port users
- Adjustment of port charges and environmental discounts in line with the revised ESI with effect from 01.01.2026



**Figure 34: "Laura Maersk" a vessel using methanol as alternative fuel at the Stromkaje in Bremerhaven**



# ENVIRONMENTAL REPORT 2024

## Chapter 5

## 5 BRIEF DESCRIPTION OF ENVIRONMENTAL MANAGEMENT STRUCTURES

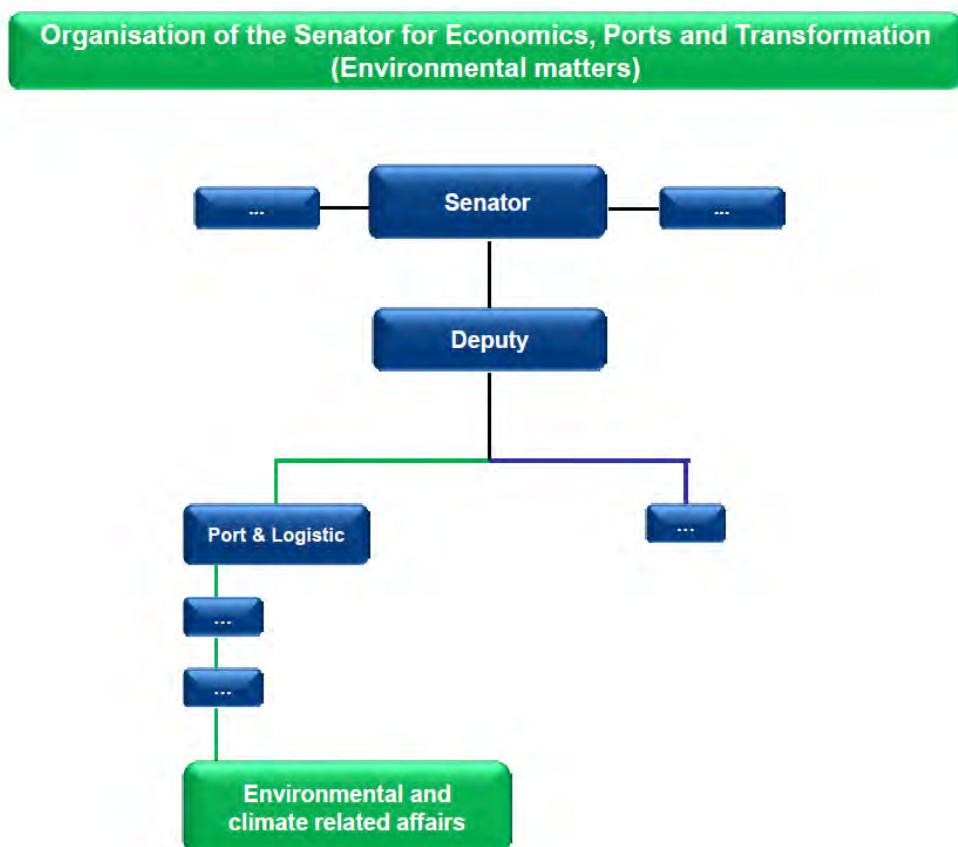
The environmental tasks and duties of the ports of Bremen/Bremerhaven are shared between the three different institutions (Senator for economic affairs, ports and transformation, bremenports GmbH & Co. KG and Harbour Master Office) as shown in Fig. 3.

### 5.1 Organizational charts

#### 5.1.1 *The senator for economic affairs, port and transformation*

The Senator for economic affairs, port and transformation is responsible for the ministerial tasks relating to the ports. She stipulates the port policies and strategies, commissions and monitors the operational institutions acting on her behalf (e.g. bremenports GmbH & Co. KG / Special Asset Ports). The Senator is the commissioning entity for bremenports and she or her representative is simultaneously chairperson of bremenports Supervisory Board.

The Senator's environmental tasks relating to the ports are concentrated in Section 32, Environmental and Climate Affairs, which forms part of the Ports and Logistics Department:



**Figure 35: Organisation of environmental matters at the Senator for economic affairs, ports and transformation<sup>46</sup>**

<sup>46</sup> See the complete organisation chart: <https://www.wissenschaft-haefen.bremen.de/organisation-9>

Four employees in the above section are responsible for environmental affairs at the ports. Mr Jochen Kress is in charge of this section. He reports to State Councillor Kai Stührenberg, through the commissary head of Department Dr Iven Krämer. In urgent cases, Jochen Kress reports directly.

The remit of this section covers the entire field of port-related environmental affairs and sustainable shipping. It evaluates impact on the ports and derives the necessary actions, and also supports and implements projects and initiatives. The section also represents the ports of Bremen in international and national working groups, committees and organisations.

Shipping topics are allocated to the remit of Section 31, "Port Economy and Shipping", which is headed by Professor Dr. Iven Krämer.

Legal environmental issues are the remit of Section 30 "Port regulatory policies, port charges and carriage of dangerous goods. Olivia Ilsemann and Thorsten Bergt are jointly in charge of this section.

### *5.1.2 bremenports GmbH & Co. KG*

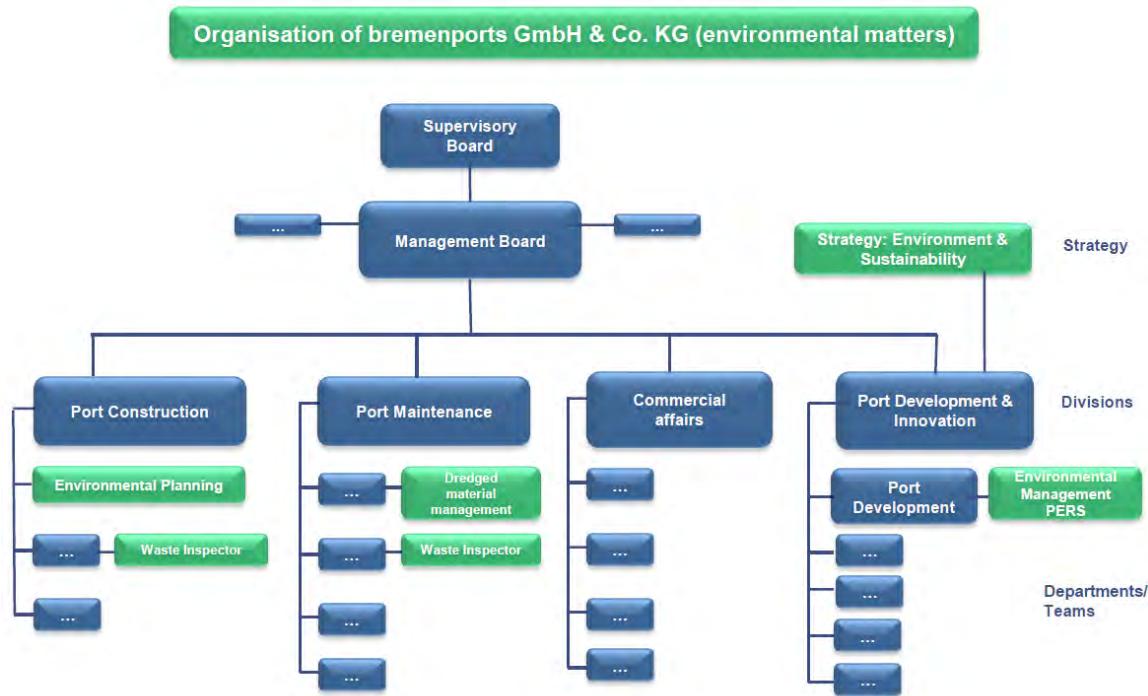
bremenports GmbH & Co KG is entrusted by the Federal State of Bremen with management of the ports as special assets and port-related activities with the aim of managing, developing and maintaining the port infrastructure of the Free Hanseatic City of Bremen in Bremen und Bremerhaven in accordance with the principles of good business practice.

bremenports is organised as a company under private law to handle these tasks. The company is wholly owned by the Free Hanseatic City of Bremen.

In addition to special assets management, the remit of bremenports also includes the regular management activities relating to the port infrastructure (such as port infrastructure management and operation, resources management, maintenance, marketing, construction, planning, project approval and project management, the tasks of port infrastructure owner and building principal, location marketing, strategic port development).

Tasks occurring in the course of major investment projects, or tasks which are not regular tasks, are referred to as "special tasks". These are individually commissioned by the Free Hanseatic City of Bremen.

The tasks relating to sustainability and the environment are allocated to various HR levels at bremenports and handled by appropriately qualified experts. While the staff position of Environmental and Sustainability Affairs deals with these tasks at strategic management level, two teams in the Port Development department are responsible for operational implementation. Furthermore an Environment Planning Department is responsible for the preparation of application documents and procedures as well as the construction and maintenance of compensation sites within the scope of project management. Additionally, there are representatives for waste management and a team for the management of dredged material.



**Figure 36: Organization of environmental matters at bremenports GmbH & Co. KG**

The operational tasks and ongoing development of environmental management pursuant to PERS are allocated to the Development Projects team in the Port Development department and are the responsibility of Katja von Bargen. She assists the management and the Senate Department for the Ports with ongoing improvement of the environmental management and represents the ports at various events and on national and international committees. The strategic outlook for her remit is decided in consultation with the staff unit of Environmental and Sustainability Affairs. She has regular meetings with the Development Projects team management and is in permanent contact with the Department of Environment and Climate-Related Affairs of the Senator for Economic Affairs, Ports and Transformation, the commissioning entity for bremenports.

In addition to her operational environmental management tasks on behalf of the ports of Bremen, she also coordinates certification pursuant to the PERS standard in direct consultation with the management of Section 32 "Environment and climate related affairs" of the Senator for Economic Affairs, Labour and Transformation.

The Environment Planning Department deals with operational project management within the port construction division and consists of two teams, Project Approval Planning and Compensation Measures, with a total of 13 employees. Work focuses on the preparation of application documents or the planning and implementation of compensatory measures with respect to port development projects.

The department manager is responsible for the coordination of human resources deployment, offers, applications and special problems in connection with projects, as well as initiating and coordinating new projects. This position is held by Anne Brüggen.

The Project Approval Planning and Compensation Measures team leaders coordinate the provision of services by their own teams, deal with special problems and prepare application documents and offers. The Project Approval Planning team is led by Ulrich Kraus, the Compensation Measures team by Thomas Wieland.

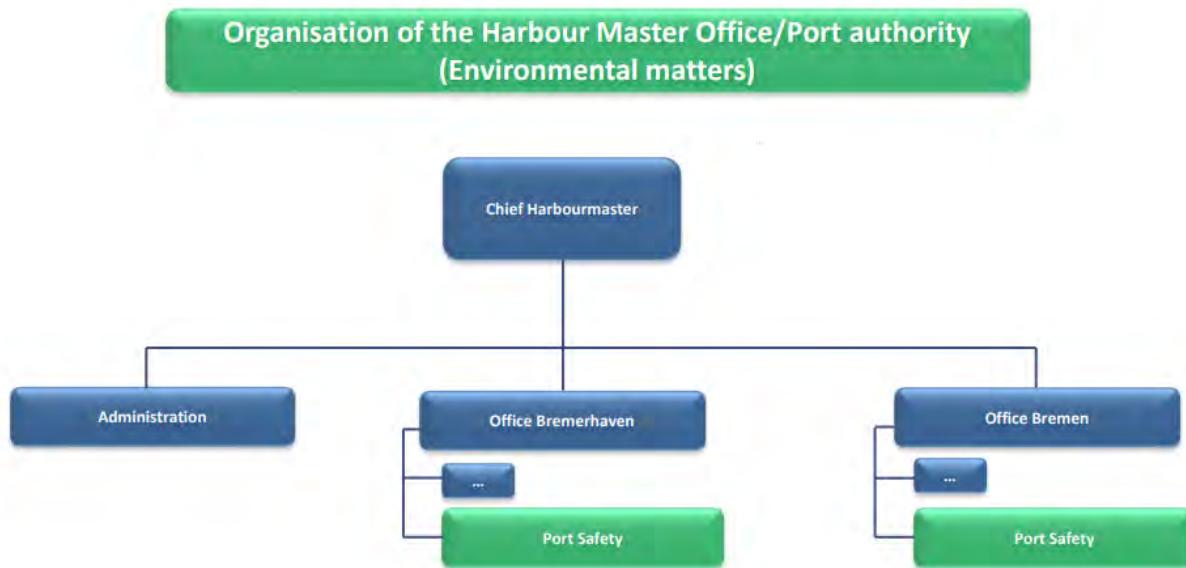
The waste inspectors, Dirk Balczun, Jens Zwirlein and Susanne Baumann work on the operational level as well.

The team which manages the treatment of dredging material that occurs during maintaining water depth consists of three staff members and is led by Jens Arnold. Their duties also include the operation of the dump for treatment of contaminated soil in Bremen-Seehausen.

The management remit of bremenports does not include public administrative tasks. The administrative functions of water protection, pollution control, soil protection, waste disposal and nature conservation authorities, for example, are the responsibility of the Ministry for the Environment or respectively the Department of Environmental Protection in Bremen and Bremerhaven.

### *5.1.3 Harbour Master Office (HBH)*

Bremen Port Authority is responsible for vessel traffic management as well as the supervision of safety and security within the port areas. Environmental issues are concentrated in the “Port Safety” units in Bremen and Bremerhaven. These units supervise and control the safe handling of dangerous goods, occupational health and safety at the ports and ship waste disposal. The Port Safety and Port Operations units are integrated into the Environment Department’s disaster control measures.



**Figure 37: Organisation of environmental matters at the Harbour Master Office**

Bremen Port Authority is the competent authority for the inspection of dangerous goods during handling, transit and intermediate storage in the port area with regard to applicable regulations. The main tasks are the inspection of dangerous cargo/containers, the authorisation of storage sites for dangerous cargo/containers and the enforcement of applicable law.

In the field of port inspection and environmental protection in connection with marine shipping, the main tasks are the inspection and supervision of compliance with safety regulations during cargo handling, the inspection of bunkering operations, controlling the sulphur content of fuels used and the disposal of ship generated waste and cargo residues. The head of unit in Bremerhaven, Andreas Meyns and in Bremen, Joachim Bothe, are authorised to issue instructions to all staff in their units. These units consist of 11 employees.

in total. Both units are in direct contact with the harbour master on duty and with Stephan Berger, head of Bremen Port Authority.

## 5.2 Environmental responsibilities of key staff

The following list indicates those liabilities affecting the environment in the ports of Bremen, which are specified in the requirements of PERS certification. These are activities that may cause, control or minimize environmental impacts when managed, or may cause environmental impacts if control was lost, or may result in a breach of environmental policy guidelines or regulations.

**Table 3: Environmental responsibilities of key staff on the operational level**

Task	Job title or name	Department
Port operations (navigation)	Stephan Berger	Harbour Master
Port operations (shipping)	Stephan Berger	Harbour Master
Emergency planning	Andreas Meyns <sup>47</sup> , Joachim Bothe <sup>48</sup>	Harbour Master Office / Port Authority Bremerhaven resp. Bremen
Waste management (shipping)	Andreas Meyns, Joachim Bothe	Harbour Master Office/ Port Authority Bremerhaven resp. Bremen
Port operations (dredging)	Henry Behrends	bremenports / Division Manager Port Maintenance
Port railway operations	Henry Behrends	bremenports / Division Manager Port Maintenance
Jetty/wharf management	Henry Behrends	bremenports / Division Manager Port Maintenance
Port construction; incl. - Project approval management - Implementation of compensation measures	Christian Pabst	bremenports / Division Manager Port Construction
Site management	Christian Pabst	bremenports / Division Manager Port Construction
Waste management (port construction, maintenance)	Christian Pabst	bremenports / Division Manager Port Construction
Operator licensing/permit <sup>49</sup>	Christian Pabst, Henry Behrends	bremenports / Division Manager Port Construction/ Division Manager Port Maintenance
On site <sup>50</sup> contractor <sup>51</sup> management	Sandra Prang	bremenports / Division Manager Commercial Affairs
Supplies acquisition	Sandra Prang	bremenports / Division Manager Commercial Affairs
Port Development and Innovation	Stefan Färber	bremenports / Division Manager Port Development
Strategic planning: port development	Klaus Bartels	bremenports / Staff Division Manager Strategy

<sup>47</sup> For Bremerhaven

<sup>48</sup> For Bremen

<sup>49</sup> Operator: entity doing operational work with environmental relevance under the responsibility of the port  
Operator licensing: with know-how and skills related to permit management of operators

<sup>50</sup> On site: in the port as a whole

<sup>51</sup> Contractors: all the companies performing environmentally relevant work for the port as a whole

Strategic environmental and sustainability planning	Uwe von Bargen	bremenports / Director Environment & Sustainability
Ecological port infrastructure (incl. compensation sites)	Anne Brüggen	bremenports / Department Manager Environmental Planning
Port Development (operational)	Christian Hein	bremenports / Department Manager Port Development
Environmental Management PERS with Monitoring, Measures and Projects	Katja von Bargen	bremenports / Environmental Management
Energy management port management and Infrastructure	Sabine Müller	bremenports / Energy Management Commissioner
Sustainability controlling port management and Infrastructure	Alexandra Groth-von Wahl	bremenports Sustainability Management
Quality management port management and Infrastructure	Martina Wellbrock	bremenports / Quality Management Commissioner
Port operations (terminals)	Not within the competence of public port administration	
Cargo handling operations		
Vehicle management of terminal traffic		
Waste management (cargo handling)		
Marina/slipway management		

### 5.3 Resources allocated specifically to port environmental management

The three institutions described as sharing the environmental tasks and duties have the following human resources to fulfill those duties:

The Senator for economic affairs, ports and transformation and bremenports: approx. 30 full-time staff (4 full-time staff with the senator, 1 full-time staff on the strategic level: environmental and sustainable affairs; approx. 7 full-time staff on the operational project level in the port development department, 12 for licensing planning, implementation of compensation measures; 6 full-time staff on the waste management and on management of dredged material); annual costs: 2,2 m €.

Harbour Master: 10.75 full-time staff are concerned with port and ship inspections and monitoring of dangerous cargo; annual costs: 800,000 €.

In addition to the human resources, financial resources are provided for projects like treatment and disposal of dredged material, the environmental ship index, compensation measures, research and development projects etc. The total environment protection expenditures and investments by type in 2021 can be found in the sustainability report 2024 of bremenports GmbH & Co. KG and the special assets Port and Fishing Port (Waterside).<sup>52</sup>

<sup>52</sup> <https://sms.bremenports.de/storm2microsite/report/sustainability-report-2024>

## 5.4 Raising staff awareness at bremenports, public relations

The following table shows our endeavours to promote environmental awareness both at bremenports and with the stakeholders of the ports of Bremen:

**Table 4: Measures to raise employee awareness at bremenports**

Topic	Measure	bremenports	Timeline
<b>Introduction to the topics of environment, energy and sustainability</b>	Onboarding event	All new recruits	Once, on commencement of employment
	Individual talk	Selected new recruits	Once, on commencement of employment
<b>Training courses work safety</b>	Electronic instruction program and mandatory instructions	All employees	Ongoing
<b>Training courses waste management</b>	Instruction as required	Employees and parties responsible for the process	If required in a project
<b>In-depth look at the topics of environment, energy and sustainability</b>	Project days for trainees	bremenports trainees	One full working day twice a year
Certification	Evaluation appraisals	Parties responsible for this process	Annual
<b>Intranet</b>	Posts		In response to specific events

**Table 5: Public relations measures on environmentally relevant topics at the ports of Bremen (selected examples)**

Topic	Measure	Timeline	URL
<b>Public relations</b>	Posts on bremenports.de, Youtube, Facebook, Twitter, Instagram, LinkedIn, Xing	In response to specific events	<a href="https://www.bremenports.de/en/">https://www.bremenports.de/en/</a>
	Press releases	In response to specific events	<a href="https://www.bremenports.de/en/press">https://www.bremenports.de/en/press</a>
	Publication of PERS Environmental Report stating current environmental policies	Every two years	<a href="https://www.bremenports.de/en/sustainability/environmental-management">https://www.bremenports.de/en/sustainability/environmental-management</a>
	Information on environmental management at the ports of Bremen	In response to specific events	<a href="https://www.bremenports.de/en/sustainability/environmental-management">https://www.bremenports.de/en/sustainability/environmental-management</a>
<b>Networking</b>	Stakeholder dialogue	every three years	<a href="https://sms.bremenports.de/storm2microsite/report/sustainability-report-2024">https://sms.bremenports.de/storm2microsite/report/sustainability-report-2024</a>
	Waddenseaports Environmental Management of the nine German seaports	Annual Twice a year and in response to specific event	<a href="https://waddenseaports.com/">https://waddenseaports.com/</a>
	Envoconnect: Sustainability congress	from 2024 onward every two years	<a href="https://envoconnect.com/">https://envoconnect.com/</a>
<b>Award presentations</b>	Green Focus Awards	Annual	<a href="https://www.bremenports.de/en/sustainability/environmental-management">https://www.bremenports.de/en/sustainability/environmental-management</a>

# ENVIRONMENTAL REPORT 2024

## Chapter 6



## 6 SELECTED EXAMPLES OF BEST PRACTICE

Examples of best practice are positive indications of the port management's ability to deliver environmental protection and sustainable development. They provide the reviewer with tangible evidence of achievement and contribute to the "Green Guide" by the ESPO that contains port-sector derived solutions for the mutual benefit of participating port members and to inform the public<sup>53</sup>.

The PERS applications 2011 until 2020 described the

- sustainable water depth management and nature compensation management in the ports of Bremen
- noise management at the container terminal and Liquefied Natural Gas (LNG) as an alternative marine fuel
- environment-related port discount, the greenports Awards and from carbon-neutral ports management company to carbon-neutral port
- employee sensitization and the comparative study and pilot project using LED and LEP lighting at the ports in North-Western of the Metropolitan Region
- Special programme to monitor air quality at Kaiserschleuse lock, Überseehafen and Waste balance sheet for the Überseehafen port district as a basis for the development of recycling strategies
- Binding regulations for the treatment of waste water from ships and #Spotlightproject DBU: "CLEAN – In-water hull cleaning"

In the **environmental report 2024** the following best practice examples are presented:

- Tide2Use – intelligent control of lock operations
- Dredging spoils for dyke construction

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<sup>53</sup> See: [www.ecoports.com](http://www.ecoports.com)

## 6.1 Tide2Use - Intelligent control of lock operations

**Port of : Bremen**  
**Country: Germany**

**Contact person:** Frieda Schneider, Jennifer Dehnhostel und Martina Wellbrock  
**Position:** Project Coordination  
**Email:** fried.a.schneider@bremenports.de, jennifer.dehnhostel@bremenports.de, martina.wellbrock@bremenports.de

**Environmental issue:** 5 – Climate change, 11 – Energy Consumption

**Relevance to the 5 Es framework of the ESPO Green Guide:**

**Exemplify / Enable**

Sufficient water depths in the areas behind the locks are of crucial importance for the efficiency of the ports. In many cases, the required water depths can only be maintained with the help of pump systems, which in turn means high energy consumption. Intelligent and consistent networking and control of lock operations and the corresponding pump stations increases energy efficiency and promotes digitisation at the port.

The IHATEC project Tide2Use has created an assistance system with the help of artificial intelligence to support the work of the lock operators. It provides the nautical engineers in the lock control centre with recommendations for time slots when the lock gates can be opened to admit water naturally into the port without disrupting shipping operations and which takes all potential risks into consideration. This combination of the staff's own knowledge of these processes and the support provided by the assistance system plays a major part in enabling the sustainable maintenance of water levels in the dock at Industriehafen, the non-tidal port area in Oslebshausen.

Water levels in dock harbours have to be kept at an almost constant level. This is achieved by balancing the water needed for the locks and other water losses by providing water from pump stations and top-up channels and other water input sources. In view of the number of ship arrivals and departures and the large number of resulting and external parameters, this adds up to a complex control problem. The fact that many of these parameters are influenced by time factors makes the situation even more complicated. The Tide2Use research project first compiled and visualised the available sources of information. This served as a basis for automatically identifying whether or not it makes sense to raise the water level in the harbour basin. This system used data from the Automatic Identification System (AIS) as well as data from the National Single Window (NSW), water level reports and meteorological data.

By the end of the project, the assistance system was ready for market rollout and is meanwhile used in the production process. The use of AI for eco-friendly regulation of the water levels is unique and has not yet been done in this way anywhere in the world. The project also involved the development and testing of a safety concept which enables third parties to provide data from a protected network, taking cybersecurity and privacy aspects into account.

**Links:**

- <https://www.youtube.com/watch?v=Nrr0zDk0xD0>
- <https://www.aimpulse.com/projekte/tide2use/index.html>
- [https://www.biba.uni-bremen.de/dbm/pdf/projects/tide2use\\_ger.pdf](https://www.biba.uni-bremen.de/dbm/pdf/projects/tide2use_ger.pdf)
- <https://bmdv.bund.de/SharedDocs/DE/Artikel/DG/KI-Projekte/tide2use.html>

**Illustration:**

**Figure 38: Lock Oslebshausen**

## 6.2 Dredging spoils for dyke construction

<b>Port of: Bremen</b> <b>Country: Deutschland</b>
<b>Contact Person: Jens Arnold</b> <b>Position: Teamleader Sediment management, bremenports</b> <b>Email: jens.arnold@bremenports.de</b>
<b>Environmental Issue: 5 – climate change, 8,9 - Dreging material, 12 – port waste, 32 – Relationsship to local residents</b>
<b>Relevanz to the 5 E`s framework of the ESPO Green Guide:</b> <b>Enable / Exemplify</b>
<p>The dyke in Woltmershausen/Bremen has been growing since 2023 to ensure that this district stays protected from flooding in future. The dyke that acts as barrier to the River Weser is to be raised by around 50 cm. This means building a completely new dyke using dredging spoils along most of the two-kilometre long stretch.</p> <p>35,000 cubic metres of dredging spoils have already been used for the 1000-metre long section of the new dyke in Rablinghausen alone. The material was first dewatered for roughly one year at the integrated dredging spoils treatment facility operated by bremenports in Seehausen and then prepared for further use. An elaborate test programme ensures that all the dredged material to be used satisfies the entire criteria of the applicable waste disposal and soil protection regulations.</p> <p>This is in fact the seventh dyke construction project since 2005 to use treated dredging spoils as building material for the dyke. To date, more than 300,000 cubic metres of dredging spoils have been put to good use. This is a win-win situation: every cubic metre of dredging spoils that is used to build dykes saves capacities at the treatment plant in Seehausen. Moreover, this material offers significant benefits for dyke construction: the dredging spoils replace a part of the clay soil from natural sources that is otherwise used to build the dykes. Because the dyke construction site is near the treatment plant in Seehausen, the transport routes are shorter. This, too, saves resources without compromising on quality in any way. Thanks to the homogeneous quality of the material, the dewatered dredging spoils have excellent working properties and have proved significantly less sensitive to adverse weather conditions than clay, making this material ideal for use in dyke-building.</p> <p>bremenports' use of recovered dredging spoils in dyke construction makes a sustainable contribution towards saving resources that has meanwhile attracted considerable attention far beyond Bremen.</p>

**Links:**

[https://www.bremenports.de/presse/aus-der-weser-an-die-weser-baggergut-als-deichbau-ressource](https://www.bremenports.de/presse/aus-der-weser-an-die-weser-baggergut-als-deichbauressource)

**Illustration:**

**Figure 39 : dredging spoils as building material**



# ENVIRONMENTAL REPORT 2024

## Chapter 7

## 7 CONTACT INFORMATION, PUBLISHERS AND PICTURE CREDITS

<b>Published by</b>	The Senator for economic affairs, ports and transformation Katharinenklosterhof 3 28195 Bremen
	bremenports GmbH &Co. KG GmbH & Co. KG Am Strom 2 27568 Bremerhaven
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<b>Picture credits</b>	Cover/chapter pictures: bremenports GmbH & Co. KG Figure 10, 21 Federal Maritime and Hydrographic Agency Figure 14: Burkard Watermann Figures: 28-30: Peter Zmich, Port Authority Bremen Figure 20: BLG All other figures: bremenports GmbH & Co. KG

Bremen, Bremerhaven, July 2024

## ABOUT THIS REPORT

### **Scope of reporting**

To facilitate comparison of the contents on an international scale, this presentation of our environmental performance systematically adheres to the guidelines of the Port Environmental Review System. In 2024, we are reporting in accordance with Version 5, published in December 2016. The contents of the report comply with the requirements of Sections 1.1 to 1.6. of the guidelines.

### **Data quality**

We constantly endeavour to improve the quality of our data. To ensure that all key performance indicators are comparable, we have defined regulations for the retrospective adjustment of data. Retrospective adjustments due to changes in methods and error rectification are made if the aggregate effect on previously reported figures differs by more than 5 %.

### **Time frame and profile**

Our environmental management covers annual key performance indicators which we use to review, compare and assess our environmental performance. We publish these KPIs every two years.

### **Audits**

In 2024, we will subject our environmental performance to an external audit in order to ensure the credibility and quality of reporting. The management endorses this procedure and provides the necessary budget. The audit will be conducted in accordance with the Port Environmental Review System by Lloyds Register, Amsterdam (LRQA).

Annex A:  
Register of significant environmental aspects

Register of significant environmental aspects								Twin-Ports of Bremen/Bremerhaven
Ref. No.	Environmental impact by port activities	Exposure path-way / Impact on	Responsible organisation	Applicable legislation / strategies / programmes (green: international legislation, red: European legislation, blue: Federal legislation, black: state regulations)	Legal and other requirements	Control measures	URL	
<b>A. Port own aspects (Infrastructure)</b>								
A.0	Sustainable port management	All aspects of the environment	bremenports GmbH & Co. KG, Division Port Construction and Innovation	RL 2014/95/EU of 22.10.2014 last amended 24.12.2014	Directive 2014/95/EU amending Directive 2013/34/EU as regards disclosure of non-financial and diversity information by certain large undertakings and groups Text with EEA relevance			<a href="https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:02014L0095-20141205&amp;from=EN">https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:02014L0095-20141205&amp;from=EN</a>
				CSRD of 14.12.2022	DIRECTIVE (EU) 2022/2464 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 14 December 2022 amending Regulation (EU) No. 537/2014 and Directives 2004/109/EC, 2006/43/EC and 2013/34/EU as regards corporate sustainability reporting			<a href="https://eur-lex.europa.eu/legal-content/DE/TXT/PDF/?uri=CELEX:32022L2464">https://eur-lex.europa.eu/legal-content/DE/TXT/PDF/?uri=CELEX:32022L2464</a>
				Taxonomy Regulation of 18.06.2020 last amended 22.06.2020 last corrected 01.06.2023	Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment and amending Regulation (EU) 2019/2088 (Text with EEA relevance)			<a href="https://eur-lex.europa.eu/eli/reg/2020/852/oj?locale=de">https://eur-lex.europa.eu/eli/reg/2020/852/oj?locale=de</a>
				Strategies/ Certifications/ Partnerships	Port's own greenports strategy (incl. greenports programme), Global Reporting Initiative, PERS, Environmental Partnership Network Bremen (PNU)			<a href="https://www.bremenports.de/hek2035">https://www.bremenports.de/hek2035</a>
					GRI-Reporting	yearly		<a href="https://sms.bremenports.de/storm2microsite/report/nachhaltigkeitsbericht-2022/page/26357">https://sms.bremenports.de/storm2microsite/report/nachhaltigkeitsbericht-2022/page/26357</a>
					PERS-Reporting	every two years		<a href="https://www.bremenports.de/nachhaltigkeit/umweltmanagement">https://www.bremenports.de/nachhaltigkeit/umweltmanagement</a>
A.1	Port development planning	All aspects of the environment	bremenports GmbH & Co. KG, Division Manager Port Construction	AFIR Regulation formal acceptance 25.07.2023 of 13.09.2023	REGULATION (EU) OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL for the deployment of an alternative fuels infrastructure and to repeal Directive 2014/94/EU	Offer of shore power supply for passenger and container vessels by 2030 (depending on size of vessel)		<a href="https://eur-lex.europa.eu/legal-content/DE/TXT/?uri=CELEX:32023R1804">https://eur-lex.europa.eu/legal-content/DE/TXT/?uri=CELEX:32023R1804</a>
				FuelEU Maritime Regulation formal acceptance 25.07.2023 of 13.09.2023	REGULATION (EU) 2023/1805 of the European Parliament and of the Council of 13.09.2023 on the use of renewable and low-carbon fuels in maritime transport			<a href="https://eur-lex.europa.eu/legal-content/DE/TXT/?uri=CELEX:32023R1805">https://eur-lex.europa.eu/legal-content/DE/TXT/?uri=CELEX:32023R1805</a>
				RL 92/43/EEC of 21.05.1992 last amended 29.03.2014	Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora - Habitats Directive -	Prevention, mitigation & compensation concepts to avoid negative effects on the environment by port planning, targets sustainability as objective  Protection of designated nature areas	Legal assessment in planning procedures and trial monitoring of compensation measures	<a href="https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:01992L0043-20130701&amp;from=EN">https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:01992L0043-20130701&amp;from=EN</a>
				RL 2009/147/EG of 30.11.2019 last amended 05.06.2019	Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds - Birds Directive -			<a href="https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:02009L0147-20190626&amp;from=EN">https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:02009L0147-20190626&amp;from=EN</a>
				RL 2000/60/EG - WRRL of 23.10.2000 last amended 30.10.2014	Directive 2000/60/EC establishing a framework for Community action in the field of water policy - Water Framework Directive (WFD)			<a href="https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:02000L0060-20141120&amp;from=EN">https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:02000L0060-20141120&amp;from=EN</a>

Register of significant environmental aspects								Twin-Ports of Bremen/Bremerhaven
Ref. No.	Environmental impact by port activities	Exposure path-way / Impact on	Responsible organisation	Applicable legislation / strategies / programmes (green: international legislation, red: European legislation, blue: Federal legislation, black: Landesvorschriften)	Legal and other requirements	Control measures	URL	
<b>A. Port own aspects (Infrastructure)</b>								
A.1	Port development planning	All aspects of the environment	bremenports GmbH & Co. KG, Division Manager Port Construction	WHG of 31.07.2009 last amended 03.07.2023	Federal Water Act - Act on Managing Water Resources	Prevention, mitigation & compensation concepts to avoid negative effects on the environment by port planning, targets sustainability as objective	Legal assessment in planning procedures and trial monitoring of compensation measures	<a href="http://www.gesetze-im-internet.de/whg_2009/BJNR258510009.html">http://www.gesetze-im-internet.de/whg_2009/BJNR258510009.html</a>
				BremWG of 12.04.2011 last amended 24.11.2020	Water Act of Bremen	Protection of designated nature areas		<a href="https://www.transparenz.bremen.de/metainformationen/bremisches-wassergesetz-bremwg-vom-12-april-2011-160048?asf=bremen203_tpgesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d">https://www.transparenz.bremen.de/metainformationen/bremisches-wassergesetz-bremwg-vom-12-april-2011-160048?asf=bremen203_tpgesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d</a>
				BNatSchG of 29.07.2009 last amended 08.12.2022	Act on the Conservation of Nature and of Landscapes			<a href="https://www.gesetze-im-internet.de/bnatschg_2009/BJNR254210009.html">https://www.gesetze-im-internet.de/bnatschg_2009/BJNR254210009.html</a>
				BremNatG of 27.04.2010 last amended 01.03.2022	Bremen's Act on the Conservation of Nature and of Landscapes			<a href="https://www.transparenz.bremen.de/metainformationen/bremisches-gesetz-uber-natur-schutz-und-landschaftspflege-bremnatg-vom-27-april-2010-178111?asf=bremen203_tpgesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d">https://www.transparenz.bremen.de/metainformationen/bremisches-gesetz-uber-natur-schutz-und-landschaftspflege-bremnatg-vom-27-april-2010-178111?asf=bremen203_tpgesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d</a>
				"Weserportsee" Ordinance of 21 March 1997 last amended 20 October 2020	Ordinance on "Weserportsee" nature reserve in Bremen's Überseehafen district in Bremerhaven			<a href="https://www.transparenz.bremen.de/metainformationen/verordnung-uber-das-natur-schutz-gebiets-weserportsee-im-stadt-bremischen-ueberseehafen-gebiets-bremerhaven-vom-21-maerz-1997-158004?asf=bremen203_tpgesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d">https://www.transparenz.bremen.de/metainformationen/verordnung-uber-das-natur-schutz-gebiets-weserportsee-im-stadt-bremischen-ueberseehafen-gebiets-bremerhaven-vom-21-maerz-1997-158004?asf=bremen203_tpgesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d</a>
				Ordinance on "Luneplate" nature reserve of 17 February 2015 last amended 20 October 2020	Ordinance on "Luneplate" nature reserve in the municipality of Bremerhaven			<a href="https://www.transparenz.bremen.de/metainformationen/verordnung-uber-das-natur-schutz-gebiets-luneplate-in-der-stadtgemeinde-bremerhaven-vom-17-februar-2015-157944?asf=bremen203_tpgesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d">https://www.transparenz.bremen.de/metainformationen/verordnung-uber-das-natur-schutz-gebiets-luneplate-in-der-stadtgemeinde-bremerhaven-vom-17-februar-2015-157944?asf=bremen203_tpgesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d</a>
					Weser Special Area of Conservation near Bremerhaven [DE2417-370]			<a href="https://umwelt.bremen.de/umwelt/natur/fth-gebiete-24146">https://umwelt.bremen.de/umwelt/natur/fth-gebiete-24146</a>
					Lower Saxony Wadden Seas National Park Special Protection Area for Birds [DE2210-401]; Special Area of Conservation [DE2306-301] ; World Heritage Site			<a href="https://nlwkn.niedersachsen.de/natura2000/eu_vogelschutzrichtlinie_und_eu_vogelschutzgebiete/eu_vogelschutzgebiete_in_niedersachsen/eu-vogelschutzgebiet-v01-niedersaechsisches-wattenmeer-und-angrenzendes-kuestenmeer-132472.html">https://nlwkn.niedersachsen.de/natura2000/eu_vogelschutzrichtlinie_und_eu_vogelschutzgebiete/eu_vogelschutzgebiete_in_niedersachsen/eu-vogelschutzgebiet-v01-niedersaechsisches-wattenmeer-und-angrenzendes-kuestenmeer-132472.html</a>
				Ordinance on "Flood protection polder between Senator-Apel-Strasse and Neustädter Hafen" nature reserve of 25.03.2014	Ordinance on "Flood protection polder between Senator-Apel-Strasse and Neustädter Hafen" nature reserve in the municipality of Bremen			<a href="https://www.transparenz.bremen.de/metainformationen/verordnung-uber-das-natur-schutz-gebiets-hochwasserschutzbauten-zwischen-senator-apel-strasse-und-neustaedter-hafen-in-der-stadtgemeinde-bremen-vom-25-maerz-2014-157970?asf=bremen203_tpgesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d">https://www.transparenz.bremen.de/metainformationen/verordnung-uber-das-natur-schutz-gebiets-hochwasserschutzbauten-zwischen-senator-apel-strasse-und-neustaedter-hafen-in-der-stadtgemeinde-bremen-vom-25-maerz-2014-157970?asf=bremen203_tpgesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d</a>
					Weser Special Area of Conservation between Ochtum estuary and Rekum [DE2817-370]			<a href="https://umwelt.bremen.de/umwelt/natur/fth-gebiete-24146">https://umwelt.bremen.de/umwelt/natur/fth-gebiete-24146</a>
				Ordinance on "Niedervieland - Wiedbrok - Stromer Feldmark" Special Area of Conservation of 01.08.2006	Ordinance on "Niedervieland - Wiedbrok - Stromer Feldmark" Special Area of Conservation in the municipality of Bremen			<a href="https://www.transparenz.bremen.de/metainformationen/verordnung-uber-das-landschaftsschutz-gebiets-niedervieland-wiedbrok-stromer-feldmark-in-der-stadtgemeinde-bremen-vom-1-august-2006-68903?asf=bremen203_tpgesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d">https://www.transparenz.bremen.de/metainformationen/verordnung-uber-das-landschaftsschutz-gebiets-niedervieland-wiedbrok-stromer-feldmark-in-der-stadtgemeinde-bremen-vom-1-august-2006-68903?asf=bremen203_tpgesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d</a>

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<b>A. Port own aspects (Infrastructure)</b>								
A.1	Port development planning	All aspects of the environment	bremenports GmbH &Co. KG, Division Manager Port Construction	Planning Schemes/Programms Master Development and Town Planning Scheme Bremen Master Development and Town Planning Scheme Bremerhaven (2006) Bremerhaven zoning plan, amendments Landscape Programme Bremen Reorganisation of zoning plan No. 10 A Municipal Town Planning Scheme No. 441 (Westlicher Fischereihafen) Municipal Town Planning Scheme No. 445 (Offshore Terminal Bremerhaven) Draft municipal town planning scheme No. 494 (Lune Delta Green Economy Area) Regional Planning Scheme Cuxhaven (2012) Traffic Development Scheme Bremen Agreement of the governmental parties of the Federal State of Bremen (2025) Integrated Management Plan Weser (2012)	Planungsrahmen		<a href="https://www.bauleitplan.bremen.de/fnp_index.php">https://www.bauleitplan.bremen.de/fnp_index.php</a> <a href="https://www.bremerhaven.de/de/verwaltung-politik/stadtplanungsamt/flaechennutzungsplan-2006.72536.html">https://www.bremerhaven.de/de/verwaltung-politik/stadtplanungsamt/flaechennutzungsplan-2006-aenderungen.72557.html</a> <a href="https://www.bremerhaven.de/de/verwaltung-politik/stadtplanungsamt/flaechennutzungsplan-2006-aenderungen.72557.html">https://www.bremerhaven.de/de/verwaltung-politik/stadtplanungsamt/flaechennutzungsplan-2006-aenderungen.72557.html</a> <a href="https://www.laprobremen.de/downloads/#/10/53.0965/8.7904/featuresroups=ZMF!Plan1_SIPlan1_F/selectedContent=open">https://www.laprobremen.de/downloads/#/10/53.0965/8.7904/featuresroups=ZMF!Plan1_SIPlan1_F/selectedContent=open</a> <a href="https://www.bremerhaven.de/sixcms/media.php/94/np2006-ch-10a-begr.pdf">https://www.bremerhaven.de/sixcms/media.php/94/np2006-ch-10a-begr.pdf</a> <a href="https://weboffice21.bremerhaven.de/WebOffice_Stadtplan/synserver?project=Stadtplan&amp;client=core&amp;language=de&amp;view=Bauleitplanung&amp;query_preset=Bauleitplanung&amp;X=472470&amp;Y=593253&amp;scale=10000&amp;client_app_referer=bremerhaven_de">https://weboffice21.bremerhaven.de/WebOffice_Stadtplan/synserver?project=Stadtplan&amp;client=core&amp;language=de&amp;view=Bauleitplanung&amp;query_preset=Bauleitplanung&amp;X=472470&amp;Y=593253&amp;scale=10000&amp;client_app_referer=bremerhaven_de</a> <a href="https://weboffice21.bremerhaven.de/WebOffice_Stadtplan/synserver?project=Stadtplan&amp;client=core&amp;language=de&amp;view=Bauleitplanung&amp;query_preset=Bauleitplanung&amp;X=472470&amp;Y=593253&amp;scale=10000&amp;client_app_referer=bremerhaven_de">https://weboffice21.bremerhaven.de/WebOffice_Stadtplan/synserver?project=Stadtplan&amp;client=core&amp;language=de&amp;view=Bauleitplanung&amp;query_preset=Bauleitplanung&amp;X=472470&amp;Y=593253&amp;scale=10000&amp;client_app_referer=bremerhaven_de</a> <a href="https://www.bremerhaven.de/sixcms/media.php/94/1_210414_BP494_Scoping-Papier.pdf">https://www.bremerhaven.de/sixcms/media.php/94/1_210414_BP494_Scoping-Papier.pdf</a> <a href="https://www.landkreis-cuxhaven.de/media/custom/1779_2095_1.PDF?1340852943">https://www.landkreis-cuxhaven.de/media/custom/1779_2095_1.PDF?1340852943</a> <a href="https://www.baumwelt.bremen.de/verkehr/verkehrsentwicklungsplan-5586">https://www.baumwelt.bremen.de/verkehr/verkehrsentwicklungsplan-5586</a> <a href="https://www.nlwkn.niedersachsen.de/naturschutz/natura_2000/integrierte_bewirtschaftungsplane_astuara_weser_ipb_weser_februar_2012/integrierter-bewirtschaftungsplan-ipb-weser-97504.html">https://www.nlwkn.niedersachsen.de/naturschutz/natura_2000/integrierte_bewirtschaftungsplane_astuara_weser_ipb_weser_februar_2012/integrierter-bewirtschaftungsplan-ipb-weser-97504.html</a>	
				Strategy/port plan Port development concept 20235 Thematic Master plans • Port railway	Description of the future development of the port		<a href="https://www.bremenports.de/hek2035">https://www.bremenports.de/hek2035</a> <a href="https://bremenports.de/wp-content/uploads/2017/03/Masterplan_Hafeneisenbahnh_Bremerhaven.pdf">https://bremenports.de/wp-content/uploads/2017/03/Masterplan_Hafeneisenbahnh_Bremerhaven.pdf</a>	

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Ref. No.	Environmental impact by port activities	Exposure path-way / Impact on	Responsible organisation	Applicable legislation / strategies / programmes (green: international legislation, red: European legislation, blue: Federal legislation, black: state regulations)		Legal and other requirements	Control measures	URL
<b>A. Port own aspects (Infrastructure)</b>								
A.2	Noise of the port area	Air, neighbouring population	Senator for Environment, Climate, and Science, Trade and Industry Inspectorate Bremen, Senator for Science and Ports, bremenports GmbH & Co. KG, Port Development and Innovation Division Manager	<p><b>RL 2002/49/EG of 25.06.2002</b> last amended 04.03.2020</p> <p><b>BlmSchG of 17.05.2013</b> last amended 26.07.2023</p> <p><b>BremImSchG of 14. Mai 2019</b></p> <p><b>Plan/ Permits/ Judgements</b></p> <p><b>Strategy</b></p>	<p><b>Directive 2002/49/EG relating to the assessment and management of environmental noise - Declaration by the Commission in the Conciliation Committee on the Directive relating to the assessment and management of environmental noise</b></p> <p><b>Federal Immission Control Act - Act on the Prevention of Harmful Effects on the Environment caused by Air Pollution, Noise, Vibrations and Similar Phenomena</b></p> <p><b>BlmSchG §§ 47 a-f</b></p> <p><b>BlmSchG §§ 22, 50</b></p> <p><b>Bremen Act on Protection against Harmful Impact on the Environment and Incidents (Bremen Immission Control Act - BremImSchG)</b></p> <p><b>Strategic Noise Mapping Bremerhaven</b></p> <p><b>Action plan for noise reduction Bremerhaven (2014)</b></p> <p><b>Strategic Noise Mapping Bremen (2007)</b></p> <p><b>Action plan for noise reduction Bremen (2009)</b></p> <p><b>Sustainable strategy</b></p>	<p>Containment and reduction of industrial port noise, relevant assessment values (court decision (OVG 1 D 299/01): 60 dB(A) day and 45 dB(A) night and limit value of 35 dB (A) indoor at night</p>	<p>Monitoring of port noise via state of the art monitoring system, in case of violation relevant noise values: quick responses to reduce the port noise</p>	<p><a href="https://eur-lex.europa.eu/legal-content/DE/TXT/PDF/?uri=CELEX:02002L0049-20210729&amp;from=EN">https://eur-lex.europa.eu/legal-content/DE/TXT/PDF/?uri=CELEX:02002L0049-20210729&amp;from=EN</a></p> <p><a href="https://www.gesetze-im-internet.de/bimschg/BJNR007210974.html">https://www.gesetze-im-internet.de/bimschg/BJNR007210974.html</a></p> <p><a href="https://www.gesetze-im-internet.de/bimschg/BJNR007210974.html#BJNR007210974B_JNG011004360">https://www.gesetze-im-internet.de/bimschg/BJNR007210974.html#BJNR007210974B_JNG011004360</a></p> <p><a href="https://www.gesetze-im-internet.de/bimschg/_22.html">https://www.gesetze-im-internet.de/bimschg/_22.html</a></p> <p><a href="https://www.gesetze-im-internet.de/bimschg/_50.html">https://www.gesetze-im-internet.de/bimschg/_50.html</a></p> <p><a href="https://www.transparenz.bremen.de/metainformation/en/bremisches-gesetz-zum-schutz-vor-schaedlichen-umwelteinwirkungen-und-steeraellen-bremisches-immissionsschutzgesetz-bremimschg-vom-14-mai-2019-130986?template=20_gp_ifg_meta_detail_d">https://www.transparenz.bremen.de/metainformation/en/bremisches-gesetz-zum-schutz-vor-schaedlichen-umwelteinwirkungen-und-steeraellen-bremisches-immissionsschutzgesetz-bremimschg-vom-14-mai-2019-130986?template=20_gp_ifg_meta_detail_d</a></p> <p><a href="https://www.bremerhaven.de/sixcms/media.php/94/Blerricht_L%C3%A4rmkartierung+Stufe+3.pdf">https://www.bremerhaven.de/sixcms/media.php/94/Blerricht_L%C3%A4rmkartierung+Stufe+3.pdf</a></p> <p><a href="https://www.bauumwelt.bremen.de/umwelt/larm/umgebungsstaerm_im_land_bremen-24080">https://www.bauumwelt.bremen.de/umwelt/larm/umgebungsstaerm_im_land_bremen-24080</a></p> <p><a href="https://www.senatspressestelle.bremen.de/pressemitteilungen/larmkartierung-in-bremen-karten-ab-dem-25-januar-im-geoportal-bremen-verfuegbar-415944">https://www.senatspressestelle.bremen.de/pressemitteilungen/larmkartierung-in-bremen-karten-ab-dem-25-januar-im-geoportal-bremen-verfuegbar-415944</a></p> <p><a href="https://umwelt.bremen.de/umwelt/larm/umgebungsstaerm_im_land_bremen-24080">https://umwelt.bremen.de/umwelt/larm/umgebungsstaerm_im_land_bremen-24080</a></p> <p><a href="https://www.bremenports.de/nachhaltigkeit/umweltmanagement">https://www.bremenports.de/nachhaltigkeit/umweltmanagement</a></p>

Register of significant environmental aspects								
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<b>A. Port own aspects (Infrastructure)</b>								
A.3	Air pollution	Air, neighbouring population, animals, plants	bremenports GmbH & Co. KG, Director Environment & Sustainability; bremenports GmbH & Co. KG, Division Manager Port Construction Ministry of Scientific Affairs and Ports, units 02&32	<b>RL 2008/50/EG</b> of 21.05.2008 last amended 27.03.2020	Directive 2008/50/EG on ambient air quality and cleaner air for Europe	Containment and reduction of air pollution; relevant limit values: see Directive 2008/50/EG and 39th Federal Immission Control Act	Monitoring by environmental protection agency (SKUMS)	<a href="https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:02008L0050-20150918&amp;from=EN">https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:02008L0050-20150918&amp;from=EN</a>
				<b>AFIR Regulation</b> formal acceptance 25.07.2023 of 13.09.2023	<b>REGULATION (EU) OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL</b> for the deployment of an alternative fuels infrastructure and to repeal Directive 2014/94/EU			<a href="https://eur-lex.europa.eu/legal-content/DE/TXT/?uri=CELEX:32023R1804">https://eur-lex.europa.eu/legal-content/DE/TXT/?uri=CELEX:32023R1804</a>
				<b>FuelEU Maritime Regulation</b> formal acceptance 25.07.2023 of 13.09.2023	<b>REGULATION (EU) 2023/1805</b> of the European Parliament and of the Council of 13.09.2023 on the use of renewable and low-carbon fuels in maritime transport			<a href="https://eur-lex.europa.eu/legal-content/DE/TXT/?uri=CELEX:32023R1805">https://eur-lex.europa.eu/legal-content/DE/TXT/?uri=CELEX:32023R1805</a>
				<b>BlmSchG</b> of 17.05.2013 last amended 26.07.2023	<b>Ordinance on Air Quality Standards und Maximum Emission Levels - Thirty-Ninth Ordinance for Implementation of the Federal Immission Control Act, in particular Section 22</b>			<a href="https://www.gesetze-im-internet.de/bimschg/BJNR007210974.html">https://www.gesetze-im-internet.de/bimschg/BJNR007210974.html</a>
				<b>39. BlmSchV</b> of 02.08.2010 last amended 19.06.2020	<b>Federal Immission Control Act - Act on the Prevention of Harmful Effects on the Environment caused by Air Pollution, Noise, Vibrations and Similar Phenomena</b>			<a href="https://www.gesetze-im-internet.de/bimschv_39/BJNR106510010.html">https://www.gesetze-im-internet.de/bimschv_39/BJNR106510010.html</a>
				Programm	Environmental Shipping Index (since 2012 in the ports of Bremen/Bremerhaven)	The best ships are rewarded (ESI Score)	Assessments, Audits of self-declaration	<a href="https://www.environmentalshipindex.org/">https://www.environmentalshipindex.org/</a>
			Harbour Master Office, units 21&31	<b>RL 2016/802/EU</b> of 21.05.2016	Directive 2016/802 / EU on reducing the sulfur content of certain liquid fuels	Sulphur content of ship fuel < 0,1 % PERS-MPI: Compliance of sulphur limit regulations	Monitoring by the Harbour Master Office	<a href="https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:32016L0802&amp;from=DE">https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:32016L0802&amp;from=DE</a>
				<b>BrHafenO</b> of 24.04.2001 last amended 23.11.2022	Bremen Port Regulations			<a href="https://www.transparenz.bremen.de/metainformationen/bremische-hafenordnung-vom-24-april-2001-186323?asf=bremen203_tppgesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d">https://www.transparenz.bremen.de/metainformationen/bremische-hafenordnung-vom-24-april-2001-186323?asf=bremen203_tppgesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d</a>
				<b>BrHafenbetrG</b> of 24.11.2000 last amended 21.06.2022	Bremen Port Operations Act			<a href="https://www.transparenz.bremen.de/metainformationen/bremisches-hafenbetriebsgesetz-vom-21-november-2000-181680?asf=bremen203_tppgesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d">https://www.transparenz.bremen.de/metainformationen/bremisches-hafenbetriebsgesetz-vom-21-november-2000-181680?asf=bremen203_tppgesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d</a>
			bremenports GmbH & Co. KG, Director Environment & Sustainability; bremenports GmbH & Co.	Strategy	Sustainable strategy	PERS-ECI: Air quality PERS-OPI: Calculated air pollutants from vessels in the port area	Monitoring by the port	chrome-extension://efaidnbmnnibpcajpcgkclclefdmka/j/https://www.bremenports.de/fileadmin/user_upload/Environmental-Report-en-pers.pdf

Register of significant environmental aspects								Twin-Ports of Bremen/Bremerhaven	
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<b>A. Port own aspects (Infrastructure)</b>									
A.4	Climate protection/ energy efficiency	Climate & all aspects of the environment	bremenports GmbH & Co. KG, Senator for Economic Affairs, Ports and Transformation, Port Authority Bremen, Power grid operator	<p><b>European Climate Law</b> of 30 June 2021</p> <p><b>Federal climate protection law (KSG)</b> of 12.12.2019 last amended 18.08.2021</p> <p><b>BremKEG</b> of 24.03.2015 last amended 28.03.2023</p> <p><b>Energy Efficiency Act - EnEFG</b> of 13.11.2023</p> <p><b>GBuilding Energy Act - GEG</b> of 08.08.2020 last amended 16.10.2023 in force 01.10.2024</p> <p><b>EDL-G</b> of 04.11.2010 last amended 13.11.2023</p> <p><b>EEG 2023</b> of 21.07.2014 last amended 05.02.2024</p> <p>Programms and Strategies</p>	<p><b>REGULATION (EU) 2021/1119 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL establishing the framework for achieving climate neutrality</b></p> <p>Law to introduce a federal climate protection law and to change further regulations</p> <p>Bremen's Act on Climate Protection and Energy (BremKEG)</p> <p>Act to increase energy efficiency in Germany</p> <p>Act to save energy and promote the use of renewable energy for heating/cooling requirements in buildings</p> <p>Act on Energy Services and Further Energy Efficiency Measures (EDL-G)</p> <p>Renewable Energy Sources Act - Act on the Promotion of Renewable Energy Sources</p> <p>Port Development Concept 2035</p> <p>World Port Sustainability Programme (WPSP)</p> <p>Continuation of climate protection strategy</p> <p>Environmental Shipping Index (since 2012 in ports of Bremen/Bremerhaven)</p> <p>Environmental Partnership Network Bremen (PUU)</p> <p>Sustainable strategy</p>	<p>Energy Audits or Energy Management (DIN ISO 50001); CO2-Reduction by 40% compared to 1990 until 2020</p>	<p>Monitoring by environmental protection agency (SKUMS)</p>	<p><a href="https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:32021R1119&amp;from=DE">https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:32021R1119&amp;from=DE</a></p> <p><a href="https://www.gesetze-im-internet.de/eeg_2014/BJNR106610014.html">https://www.gesetze-im-internet.de/eeg_2014/BJNR106610014.html</a></p> <p><a href="https://www.transparenz.bremen.de/metainformationen/bremisches-klimaschutz-und-energiegesetz-bremkeg-vom-24-maerz-2015-190933?asl=bremen203_tpgesetz.c.55340.de&amp;template=20_gp_fg_meta_detail_d">https://www.transparenz.bremen.de/metainformationen/bremisches-klimaschutz-und-energiegesetz-bremkeg-vom-24-maerz-2015-190933?asl=bremen203_tpgesetz.c.55340.de&amp;template=20_gp_fg_meta_detail_d</a></p> <p><a href="https://www.gesetze-im-internet.de/enefg/BJNR1350B0023.html">https://www.gesetze-im-internet.de/enefg/BJNR1350B0023.html</a></p> <p><a href="https://www.gesetze-im-internet.de/geg/">https://www.gesetze-im-internet.de/geg/</a></p> <p><a href="https://www.gesetze-im-internet.de/edl-g/BJNR148310010.html">https://www.gesetze-im-internet.de/edl-g/BJNR148310010.html</a></p> <p><a href="http://www.gesetze-im-internet.de/ksg/BJNR251310019.html">http://www.gesetze-im-internet.de/ksg/BJNR251310019.html</a></p> <p><a href="https://www.bremenports.de/hek2035">https://www.bremenports.de/hek2035</a></p> <p><a href="https://sustainableworldports.org/environmental-ship-index-esi/">https://sustainableworldports.org/environmental-ship-index-esi/</a></p> <p><a href="https://www.bremerhaven.de/de/verwaltung-politik-sicherheit/klimastadt/klimaschutz-klimaneutralitaet.132366.html">https://www.bremerhaven.de/de/verwaltung-politik-sicherheit/klimastadt/klimaschutz-klimaneutralitaet.132366.html</a></p> <p><a href="https://www.environmentalshipindex.org/">https://www.environmentalshipindex.org/</a></p> <p><a href="https://www.umwelt-unternehmen.bremen.de/dabeisein-1469">https://www.umwelt-unternehmen.bremen.de/dabeisein-1469</a></p>	<p><a href="chrome-extension://efaidnbmnnibpcajpcgkclefindmkaifhttps://www.bremenports.de/fileadmin/user_upload/Environmental-Report-en-pers.pdf">chrome-extension://efaidnbmnnibpcajpcgkclefindmkaifhttps://www.bremenports.de/fileadmin/user_upload/Environmental-Report-en-pers.pdf</a></p>

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<b>A. Port own aspects (Infrastructure)</b>									
A.5	Climate change adaptation	Climate, water, port, infrastructure, neighbouring population	bremenports GmbH & Co. KG, Director Environment & Sustainability; bremenports GmbH & Co. KG, Division Manager Port Construction	Strategies/ Programs/ Projects	Climate adaptation strategy for the cities of Bremen and Bremerhaven (2018) continuing	Key measures: adaptation concepts for the port areas in Bremen and Bremerhaven	Monitoring of climate change by the port; Monitoring of coastal defense requirements by SUKW	<a href="https://www.klimaanpassung.bremen.de/anpassungsstrategie/die-anpassungsstrategie-2035">https://www.klimaanpassung.bremen.de/anpassungsstrategie/die-anpassungsstrategie-2035</a>	
					Coastal Protection Plan (2021)			<a href="https://umwelt.bremen.de/umwelt/wasserwirtschaft-hochwasser-und-kuestenschutz/generalplan-kuestenschutz-23596">https://umwelt.bremen.de/umwelt/wasserwirtschaft-hochwasser-und-kuestenschutz/generalplan-kuestenschutz-23596</a>	
					R+D-Project Nordwest 2050 (2009-2013)			<a href="https://www.umweltbundesamt.de/themen/klima-energie/klimafolgen-anpassung/werkzeuge-der-anpassung/projektkatalog/nordwest2050-perspektiven-fuer-klimaangepasste">https://www.umweltbundesamt.de/themen/klima-energie/klimafolgen-anpassung/werkzeuge-der-anpassung/projektkatalog/nordwest2050-perspektiven-fuer-klimaangepasste</a>	
					R+D-Project "Tidepolder Dredteniedierung" (2013)				
					Sustainable strategy	Port development, port construction and compensation measures have to integrate climate adaptation requirements	Monitoring of climate change risks by internal risk management	<a href="https://sms.bremenports.de/storm2microsite/report/nachhaltigkeitsbericht-2022">https://sms.bremenports.de/storm2microsite/report/nachhaltigkeitsbericht-2022</a>	
A.6	Warranty of service capability of nature and landscape (negative influences on nature and land consumption)	All environmental aspects	bremenports GmbH & Co. KG, Division Manager Port Construction & Port Maintenance	RL 92/43/EWG of 21.05.1992 last amended 29.03.2014	Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora - Habitats Directive -	Ecological sustainability and safeguarding of "green infrastructure" (support for the greenports strategy), conservation of nature and landscape, safeguarding nature capacity	Monitoring of Natura2000 sites; implemented compensation measures by SKUMS	<a href="https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:01992L0043-20130701&amp;from=EN">https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:01992L0043-20130701&amp;from=EN</a>	
				RL 2009/147/EG of 30.11.2009 last amended 05.06.2019	Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds - Birds Directive -			<a href="https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:02009L0147-20190626&amp;from=EN">https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:02009L0147-20190626&amp;from=EN</a>	
				VO (EU) 1143/2014 of 22.10.2014 last amended 14.12.2019	Regulation (EU) No. 1143/2014 of the European Parliament and of the Council of 22 October 2014 on the prevention and management of the introduction and spread of invasive alien species			<a href="https://eur-lex.europa.eu/legal-content/DE/TXT/?uri=CELEX%3A02014R1143-20191214&amp;qid=1713859597883">https://eur-lex.europa.eu/legal-content/DE/TXT/?uri=CELEX%3A02014R1143-20191214&amp;qid=1713859597883</a>	
				VO (EU) 2016/2031 of 26.10.2016 last amended 25.02.2021	Regulation (EU) 2016/2031 of the European Parliament and of the Council of 26 October 2016 on protective measures against pests of plants, amending Regulations (EU) No. 228/2013, (EU) No. 652/2014 and (EU) No. 1143/2014 of the European Parliament and of the Council and repealing Council Directives 69/464/EEC, 74/647/EEC, 93/85/EEC, 98/57/EC, 2000/29/EC, 2006/91/EC and 2007/33/EC			<a href="https://eur-lex.europa.eu/legal-content/DE/TXT/?uri=CELEX%3A02016R2031-20191214">https://eur-lex.europa.eu/legal-content/DE/TXT/?uri=CELEX%3A02016R2031-20191214</a>	

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<b>A. Port own aspects (Infrastructure)</b>									
A.6	Warranty of service capability of nature and landscape (negative influences on nature and land consumption)	All environmental aspects	bremenports GmbH & Co. KG, Division Manager Port Construction & Port Maintenance	BNatSchG of 26.07.2009 last amended 08.12.2022	Act on the Conservation of Nature and of Landscapes			<a href="https://www.gesetze-im-internet.de/bnatsch_2009/BJNR254210009.html">https://www.gesetze-im-internet.de/bnatsch_2009/BJNR254210009.html</a>	
				UVPG of 24.02.2010 last amended 22.12.2023	Environmental Impact Assessment Act				
				BremUVPG of 05.02.2008 last amended 20.10.2020	Environmental Impact Assessment Act of Bremen (2008)				
				BremNatG of 27.04.2010 last amended 01.03.2022	Bremen's Act on the Conservation of Nature and of Landscapes				
				Tree preservation bye-laws of 05.12.2002 last amended 27.05.2014	Tree preservation bye-laws of Bremen (2002)				
				Further regulations	Nature reserve bye-laws (e.g. Weserportsee (1994))				
				Programs	Landscape Programme Bremen				
				Strategy	Sustainable strategy	PERS-ECI: Habitat Index	Monitoring by bremenports GmbH & Co. KG	<a href="https://www.bremenports.de/nachhaltigkeit/umweltmanagement">https://www.bremenports.de/nachhaltigkeit/umweltmanagement</a>	

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<b>A. Port own aspects (Infrastructure)</b>								
A.7	Port construction (environment-friendly project design)	All environmental aspects	bremenports GmbH & Co. KG, Division Manager Port Construction & Port Maintenance	<p><b>RL 92/43/EWG</b> of 21.05.1992 last amended 13.05.2013</p> <p><b>RL 2009/147/EG</b> of 30.11.2009 last amended 05.06.2019</p> <p><b>BNatSchG</b> of 26.07.2009 last amended 08.12.2022</p> <p><b>BremNatG</b> of 27.04.2010 last amended 01.03.2022</p> <p><b>RL 2000/60/EG - WRRL</b> of 23.10.2000 last amended 30.10.2014</p> <p><b>WHG</b> of 31.07.2009 last amended 22.12.2023</p> <p><b>BremWG</b> of 12.04.2011 last amended 24.11.2020</p> <p><b>UVPG</b> of 22.12.2010 last amended 22.03.2023</p> <p><b>BremUVPG</b> of 05.02.2008 last amended 20.10.2020</p> <p><b>Directive 2008/98/EG on waste</b> of 19.11.2008 last modified 30.05.2018</p> <p><b>AbfBeauftrV</b> of 02.12.2016 last amended 28.04.2022</p> <p><b>RL 2008/50/EG</b> of 21.05.2008 last amended 27.03.2020</p>	<p>Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora - Habitats Directive -</p> <p>Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds - Birds Directive -</p> <p>Act on the Conservation of Nature and of Landscapes</p> <p>Bremen's Act on the Conservation of Nature and of Landscapes</p> <p>Directive 2000/60/EC establishing a framework for Community action in the field of water policy - Water Framework Directive (WFD)</p> <p>Federal Water Act - Act on Managing Water Resources</p> <p>Water Act of Bremen</p> <p>Gesetz über die Umweltverträglichkeitsprüfung</p> <p>Environmental Impact Assessment Act of Bremen (2008)</p> <p>Directive 2008/98/EG on waste and repealing certain Directives</p> <p>Waste Management Officer Ordinance - Ordinance on Company Officers for Waste</p> <p>Directive 2008/50/EG on ambient air quality and cleaner air for Europe</p>	<p>Prevention, mitigation &amp; compensation of negative effects on the environment by construction projects (design and execution)</p>	<p>Project Management in design and construction phase; Building inspection</p>	<p><a href="https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:01992L0043-20130701&amp;from=EN">https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:01992L0043-20130701&amp;from=EN</a></p> <p><a href="https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:02009L0147-20190626&amp;from=EN">https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:02009L0147-20190626&amp;from=EN</a></p> <p><a href="https://www.gesetze-im-internet.de/bnatschg_2009/BJNR254210009.html">https://www.gesetze-im-internet.de/bnatschg_2009/BJNR254210009.html</a></p> <p><a href="https://www.transparenz.bremen.de/metainformationen/bremisches-gesetz-uber-naturschutz-und-landschaftspflege-bremnatg-vom-27-april-2010-17811?asi=bremen203_tpgesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d">https://www.transparenz.bremen.de/metainformationen/bremisches-gesetz-uber-naturschutz-und-landschaftspflege-bremnatg-vom-27-april-2010-17811?asi=bremen203_tpgesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d</a></p> <p><a href="https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:02000L0060-20141120&amp;from=EN">https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:02000L0060-20141120&amp;from=EN</a></p> <p><a href="http://www.gesetze-im-internet.de/wtg_2009/BJNR258510009.html">http://www.gesetze-im-internet.de/wtg_2009/BJNR258510009.html</a></p> <p><a href="https://www.transparenz.bremen.de/metainformationen/bremisches-wassergesetz-bremwg-vom-12-april-2011-160048?asi=bremen203_tpgesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d">https://www.transparenz.bremen.de/metainformationen/bremisches-wassergesetz-bremwg-vom-12-april-2011-160048?asi=bremen203_tpgesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d</a></p> <p><a href="https://www.gesetze-im-internet.de/uvpg/BJNR102050990.html">https://www.gesetze-im-internet.de/uvpg/BJNR102050990.html</a></p> <p><a href="https://www.transparenz.bremen.de/metainformationen/bremisches-landesgesetz-uber-die-umweltvertraglichkeitspruefung-bremuvpg-in-der-fassung-der-bekanntmachung-vom-5-februar-2008-157989?asi=bremen203_tpgesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d">https://www.transparenz.bremen.de/metainformationen/bremisches-landesgesetz-uber-die-umweltvertraglichkeitspruefung-bremuvpg-in-der-fassung-der-bekanntmachung-vom-5-februar-2008-157989?asi=bremen203_tpgesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d</a></p> <p><a href="https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:02008L0098-20180705&amp;from=EN">https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:02008L0098-20180705&amp;from=EN</a></p> <p><a href="https://www.gesetze-im-internet.de/abfbeauftrv_2017/BJNR278900016.html">https://www.gesetze-im-internet.de/abfbeauftrv_2017/BJNR278900016.html</a></p> <p><a href="https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:02008L0050-20150918&amp;from=EN">https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:02008L0050-20150918&amp;from=EN</a></p>

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<b>A. Port own aspects (Infrastructure)</b>								
A.7	Port construction (environment -friendly project design)	All environmental aspects	bremenports GmbH & Co. KG, Division Manager Port Construction & Port Maintenance	<p><b>BImSchG</b> of 17.05.2013 last modified 26.07.2023</p> <p><b>BBodSchG</b> of 17.03.1998 last amended 25.02.2021</p> <p><b>BBodSchV</b> of 12.07.1999 last amended 09.07.2021</p> <p><b>BremImSchG</b> of 14. Mai 2019</p> <p><b>BremBodSchG</b> of 27.08.2002 last amended 20.10.2020</p>	<p><b>Federal Immission Control Act - Act on the Prevention of Harmful Effects on the Environment caused by Air Pollution, Noise, Vibrations and Similar Phenomena</b></p> <p><b>Federal Soil Protection Act - Act for the Protection of Harmful Changes to the Soil and for the Remediation of Contaminated Sites</b></p> <p><b>Federal Soil Protection Act - Act for the Protection of Harmful Changes to the Soil and for the Remediation of Contaminated Sites</b></p> <p><b>Bremen Act on Protection against Harmful Impact on the Environment and Incidents (Bremen Immission Control Act - BremImSchG)</b></p> <p><b>Bremen Act of Soil Protection</b></p>	<p>Prevention, mitigation &amp; compensation of negative effects on the environment by construction projects (design and execution)</p>	<p>Project Management in design and construction phase; Building inspection</p>	<p><a href="https://www.gesetze-im-internet.de/bimschg/BJNR007210974.html">https://www.gesetze-im-internet.de/bimschg/BJNR007210974.html</a></p> <p><a href="https://www.gesetze-im-internet.de/bbodschg/BJNR050210998.html">https://www.gesetze-im-internet.de/bbodschg/BJNR050210998.html</a></p> <p><a href="https://www.gesetze-im-internet.de/bbodschv_2023/">https://www.gesetze-im-internet.de/bbodschv_2023/</a></p> <p><a href="https://www.transparenz.bremen.de/metainformation/en/bremisches-gesetz-zum-schutz-vor-schaedlichen-umwelteinwirkungen-und-stoerfaellen-bremisches-immissionsschutzgesetz-bremimschg-vom-14-mai-2019-130986?template=20_gp_ifg_meta_detail_d">https://www.transparenz.bremen.de/metainformation/en/bremisches-gesetz-zum-schutz-vor-schaedlichen-umwelteinwirkungen-und-stoerfaellen-bremisches-immissionsschutzgesetz-bremimschg-vom-14-mai-2019-130986?template=20_gp_ifg_meta_detail_d</a></p> <p><a href="https://www.transparenz.bremen.de/metainformation/en/bremisches-gesetz-zum-schutz-des-bodens-bremisches-bodenbeschutzgesetz-brembodschg-vom-27-august-2002-157828?asf=1bremen203_tpgesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d">https://www.transparenz.bremen.de/metainformation/en/bremisches-gesetz-zum-schutz-des-bodens-bremisches-bodenbeschutzgesetz-brembodschg-vom-27-august-2002-157828?asf=1bremen203_tpgesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d</a></p>

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<b>A. Port own aspects (Infrastructure)</b>								
A.7	Port construction (environment-friendly project design)	All environmental aspects	bremenports GmbH & Co. KG, Division Manager Port Construction & Port Maintenance	Further regulations/ Permits/ Judgements  <b>GUBAK 2009 Transitional Instruction on dredged material handling in coastal areas (former HABAK-WSV)</b>  <b>HABAB-WSV 2017 Instruction on dredged material handling in inland areas</b>  Authorizations with environmental regulations - in particular extensions of CT 4, CT IIIa, CT III  Court judgement as regards the extension of CT 4 (OVG 1 D 224/04) and CT IIIa (OVG 1 D 299/01)  Settlement in court as regards the determination of constitutionality of the development plans CT II and III (OVG 1 N 7/89)	Prevention, mitigation & compensation of negative effects on the environment by construction projects (design and execution)	Project Management in design and construction phase; Building inspection	<a href="https://izw.baw.de/wsv/umwelt/handbuch?highlight=Regelungen%2C%C3%BCbergreifende%2Cregelungen">https://izw.baw.de/wsv/umwelt/handbuch?highlight=Regelungen%2C%C3%BCbergreifende%2Cregelungen</a>  <a href="https://izw.baw.de/wsv/umwelt/handbuch?highlight=Regelungen%2C%C3%BCbergreifende%2Cregelungen">https://izw.baw.de/wsv/umwelt/handbuch?highlight=Regelungen%2C%C3%BCbergreifende%2Cregelungen</a>       <a href="https://www.bauleitplan.bremen.de/fnp_index.php">https://www.bauleitplan.bremen.de/fnp_index.php</a>  <a href="https://www.bremerhaven.de/de/verwaltung-politik-sicherheit/stadtplanungsamt/flaechenutzungsplan-2006.72536.html">https://www.bremerhaven.de/de/verwaltung-politik-sicherheit/stadtplanungsamt/flaechenutzungsplan-2006.72536.html</a>  <a href="https://www.lapro-bremen.de/#/10/53.0965/8.7904/featureGroups=ZMF!Plan1_SI!Plan1_F/selectedContent=open">https://www.lapro-bremen.de/#/10/53.0965/8.7904/featureGroups=ZMF!Plan1_SI!Plan1_F/selectedContent=open</a>  <a href="https://www.baumwelt.bremen.de/umwelt/natur/integrierter-bewirtschaftungsplan-weser-24358">https://www.baumwelt.bremen.de/umwelt/natur/integrierter-bewirtschaftungsplan-weser-24358</a>	<a href="https://izw.baw.de/wsv/umwelt/handbuch?highlight=Regelungen%2C%C3%BCbergreifende%2Cregelungen">https://izw.baw.de/wsv/umwelt/handbuch?highlight=Regelungen%2C%C3%BCbergreifende%2Cregelungen</a>  <a href="https://izw.baw.de/wsv/umwelt/handbuch?highlight=Regelungen%2C%C3%BCbergreifende%2Cregelungen">https://izw.baw.de/wsv/umwelt/handbuch?highlight=Regelungen%2C%C3%BCbergreifende%2Cregelungen</a>       <a href="https://www.bauleitplan.bremen.de/fnp_index.php">https://www.bauleitplan.bremen.de/fnp_index.php</a>  <a href="https://www.bremerhaven.de/de/verwaltung-politik-sicherheit/stadtplanungsamt/flaechenutzungsplan-2006.72536.html">https://www.bremerhaven.de/de/verwaltung-politik-sicherheit/stadtplanungsamt/flaechenutzungsplan-2006.72536.html</a>  <a href="https://www.lapro-bremen.de/#/10/53.0965/8.7904/featureGroups=ZMF!Plan1_SI!Plan1_F/selectedContent=open">https://www.lapro-bremen.de/#/10/53.0965/8.7904/featureGroups=ZMF!Plan1_SI!Plan1_F/selectedContent=open</a>  <a href="https://www.baumwelt.bremen.de/umwelt/natur/integrierter-bewirtschaftungsplan-weser-24358">https://www.baumwelt.bremen.de/umwelt/natur/integrierter-bewirtschaftungsplan-weser-24358</a>
				Planning schemes  Master Development and Town Planning Scheme Bremen (2015)  Master Development and Town Planning Scheme Bremerhaven (2006)  Landscape Programme Bremen (2015)  Integrated Management Plan Weser (2012)				<a href="https://www.bauleitplan.bremen.de/fnp_index.php">https://www.bauleitplan.bremen.de/fnp_index.php</a>  <a href="https://www.bremerhaven.de/de/verwaltung-politik-sicherheit/stadtplanungsamt/flaechenutzungsplan-2006.72536.html">https://www.bremerhaven.de/de/verwaltung-politik-sicherheit/stadtplanungsamt/flaechenutzungsplan-2006.72536.html</a>  <a href="https://www.lapro-bremen.de/#/10/53.0965/8.7904/featureGroups=ZMF!Plan1_SI!Plan1_F/selectedContent=open">https://www.lapro-bremen.de/#/10/53.0965/8.7904/featureGroups=ZMF!Plan1_SI!Plan1_F/selectedContent=open</a>  <a href="https://www.baumwelt.bremen.de/umwelt/natur/integrierter-bewirtschaftungsplan-weser-24358">https://www.baumwelt.bremen.de/umwelt/natur/integrierter-bewirtschaftungsplan-weser-24358</a>
				Strategy und Programm  Sustainable strategy  Environmental Partnership Network Bremen (PUU)	greenports programme gives general guidelines for sustainable projects; PERS – OPI: Amount of dredged material	Monitoring by bremenports GmbH & Co. KG		<a href="https://www.bremenports.de/nachhaltigkeit/umweltmanagement">https://www.bremenports.de/nachhaltigkeit/umweltmanagement</a>  <a href="https://www.umwelt-unternehmen.bremen.de/dabeisein-1469">https://www.umwelt-unternehmen.bremen.de/dabeisein-1469</a>

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A.8	Warranty of water depth by prevention of sedimentation and dredging of sediments	Water habitat/ water quality (e.g. pollutants, turbidity)	bremenports GmbH & Co. KG, Division Manager Port Maintenance	Further regulations	<p><b>Joint Notice to Shipping from the Contracting Parties of HELCOM and OSPAR</b></p> <p><b>GÜBAK 2009 Transitional instruction on dredged material handling in coastal areas (former HABAK-WSV)</b></p> <p><b>HABAB-WSV 2017 Instruction on dredged material handling in inland areas</b></p> <p><b>RL 2000/60/EG - WRRL of 23.10.2000 last amended 30.10.2014</b></p> <p><b>WHG of 31.07.2009 last amended 22.12.2023</b></p> <p><b>BremWG of 12.04.2011 last amended 24.11.2020</b></p> <p><b>WaStrG of 23.05.2007 last amended 22.12.2023</b></p> <p><b>Regulations</b></p> <p><b>Planning Schemes</b></p> <p><b>Strategy</b></p>	<p>Ecological sediment management, environmental-friendly methods for the maintenance of water depths TBT guidance level: 100 microgram per litre, other limit values see GÜBAK (2009)</p> <p>Directive 2000/60/EC establishing a framework for Community action in the field of water policy - Water Framework Directive (WFD)</p> <p>Federal Water Act - Act on Managing Water Resources</p> <p>Water Act of Bremen</p> <p>Federal Waterways Act</p> <p>Regulations as regards maintenance dredging in resp. development authorizations in particular extensions of CT III, CT IIIa, CT 4, port related turning area for ships (use of accredited methods)</p> <p>Integrated Management Plan Weser (2012)</p> <p>Sustainable strategy</p>	<p>Monitoring by bremenports GmbH &amp; Co. KG</p>	<p><a href="https://www.bsh.de/DE/THEMEN/Schifffahrt/Nautische_Informationen/Weitere_Informationen/Schifffahrtsvorschriften/Downloads_Schifffahrtsvorschriften/internationale_Schifffahrtsvorschriften/Beilage_2010-27.pdf;jsessionid=AD3F7A2340DEB096796604E7C4067349.live11293?__blob=publicationFile&amp;v=1">https://www.bsh.de/DE/THEMEN/Schifffahrt/Nautische_Informationen/Weitere_Informationen/Schifffahrtsvorschriften/Downloads_Schifffahrtsvorschriften/internationale_Schifffahrtsvorschriften/Beilage_2010-27.pdf;jsessionid=AD3F7A2340DEB096796604E7C4067349.live11293?__blob=publicationFile&amp;v=1</a></p> <p><a href="https://izw.baw.de/ws/umwelt/handbuch?highlight=Regelungen%2C%C3%BCbergreifende%2Cregelungen">https://izw.baw.de/ws/umwelt/handbuch?highlight=Regelungen%2C%C3%BCbergreifende%2Cregelungen</a></p> <p><a href="https://izw.baw.de/ws/umwelt/handbuch?highlight=Regelungen%2C%C3%BCbergreifende%2Cregelungen">https://izw.baw.de/ws/umwelt/handbuch?highlight=Regelungen%2C%C3%BCbergreifende%2Cregelungen</a></p> <p><a href="https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:02000L0060-20141120&amp;from=EN">https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:02000L0060-20141120&amp;from=EN</a></p> <p><a href="http://www.gesetze-im-internet.de/whg_2009/BJNR258510009.html">http://www.gesetze-im-internet.de/whg_2009/BJNR258510009.html</a></p> <p><a href="https://www.transparenz.bremen.de/metainformationen/bremisches-wassergesetz-bremwg-vom-12-april-2011-160048?asf=bremen203_tpgesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d">https://www.transparenz.bremen.de/metainformationen/bremisches-wassergesetz-bremwg-vom-12-april-2011-160048?asf=bremen203_tpgesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d</a></p> <p><a href="https://www.gesetze-im-internet.de/wastrg/BJNR201730968.html">https://www.gesetze-im-internet.de/wastrg/BJNR201730968.html</a></p>

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<b>A. Port own aspects (Infrastructure)</b>								
A.9	Relocation of dredged material in open water, recycling or disposal	Water habitat/ water quality, hydrology & morphology, soil	bremenports GmbH & Co. KG, Division Manager Port Maintenance	<p>Further regulations</p> <p><b>Joint Notice to Shipping from the Contracting Parties of HELCOM and OSPAR</b></p> <p><b>GÜBAK 2009 Transitional Instruction on dredged material handling in coastal areas (former HABAK-WSV)</b></p> <p><b>HABAB-WSV 2017 Instruction on dredged material handling in inland areas</b></p> <p><b>WaStrG</b> of 23.05.2007 last amended 22.12.2023</p> <p><b>RL 2010/75/EU - Industrieemissions-RL</b> of 24.11.2010 last amended 19.05.2012</p> <p><b>RL 1999/31/EG - Deponie-Richtlinie</b> of 26.04.1999 last amended 30.05.2018</p> <p><b>DepV</b> of 27.04.2009 last amended 09.07.2021</p> <p><b>LAGA M20</b> of 06.11.2003</p> <p><b>RL 2000/60/EG - WRRL</b> of 23.10.2000 last amended 30.10.2014</p> <p><b>WHG</b> of 31.07.2009 last amended 22.12.2023</p> <p><b>BremWG</b> of 12.04.2011 last amended 24.11.2020</p>	<p>Relocation of dredged material in the first place, recycling instead of disposal of dredged material, reduction of negative effects on environment, involvement of polluters on dredging with water-sanitation-effect</p>	Monitoring by bremenports GmbH & Co. KG	<p><a href="https://www.bsh.de/DE/THEMEN/Schiffahrt/Nautische_Informationen/Weitere_Informationen/Schiffahrtsvorschriften/Downloads_Schiffahrtsvorschriften/internationale_Schiffahrtsvorschriften/Beilage_2010-27.pdf?sessionid=AD3F7A2340DEB096796604E7C4067349.live11293?__blob=publicationFile&amp;v=1">https://www.bsh.de/DE/THEMEN/Schiffahrt/Nautische_Informationen/Weitere_Informationen/Schiffahrtsvorschriften/Downloads_Schiffahrtsvorschriften/internationale_Schiffahrtsvorschriften/Beilage_2010-27.pdf?sessionid=AD3F7A2340DEB096796604E7C4067349.live11293?__blob=publicationFile&amp;v=1</a></p> <p><a href="https://izw.baw.de/wsv/umwelt/handbuch?highlight=Regelungen%2C%C3%BCbergreifende%2Cregelegen">https://izw.baw.de/wsv/umwelt/handbuch?highlight=Regelungen%2C%C3%BCbergreifende%2Cregelegen</a></p> <p><a href="https://izw.baw.de/wsv/umwelt/handbuch?highlight=Regelungen%2C%C3%BCbergreifende%2Cregelegen">https://izw.baw.de/wsv/umwelt/handbuch?highlight=Regelungen%2C%C3%BCbergreifende%2Cregelegen</a></p> <p><a href="https://www.gesetze-im-internet.de/wastrg/BJNR201730968.html">https://www.gesetze-im-internet.de/wastrg/BJNR201730968.html</a></p> <p><a href="https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:02010L0075-20110106&amp;from=EN">https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:02010L0075-20110106&amp;from=EN</a></p> <p><a href="https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:01999L0031-20180704&amp;from=EN">https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:01999L0031-20180704&amp;from=EN</a></p> <p><a href="http://www.gesetze-im-internet.de/depv_2009/BJNR090010009.html">http://www.gesetze-im-internet.de/depv_2009/BJNR090010009.html</a></p> <p><a href="https://www.laga-online.de/Publikationen-50-Mitteilungen.html">https://www.laga-online.de/Publikationen-50-Mitteilungen.html</a></p> <p><a href="https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:02000L0060-20141120&amp;from=EN">https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:02000L0060-20141120&amp;from=EN</a></p> <p><a href="http://www.gesetze-im-internet.de/whg_2009/BJNR258510009.html">http://www.gesetze-im-internet.de/whg_2009/BJNR258510009.html</a></p> <p><a href="https://www.transparenz.bremen.de/metainformationen/bremisches-wassergesetz-bremwg-vom-12-april-2011-160048?asl=bremen203_tpgesetz.c.55340.de&amp;template=20_gp_fg_meta_detail_d">https://www.transparenz.bremen.de/metainformationen/bremisches-wassergesetz-bremwg-vom-12-april-2011-160048?asl=bremen203_tpgesetz.c.55340.de&amp;template=20_gp_fg_meta_detail_d</a></p>	

Register of significant environmental aspects								Twin-Ports of Bremen/Bremerhaven
Ref. No.	Environmental impact by port activities	Exposure path-way / Impact on	Responsible organisation	Applicable legislation / strategies / programmes (green: international legislation, red: European legislation, blue: Federal legislation, black: state regulations)		Legal and other requirements	Control measures	URL
<b>A. Port own aspects (Infrastructure)</b>								
A.9	Relocation of dredged material in open water, recycling or disposal	Water habitat/ water quality, hydrology & morphology, soil	bremenports GmbH & Co. KG, Division Manager Port Maintenance	BBodSchG of 17.03.1998 last amended 25.02.2021	Federal Soil Protection Act - Act for the Protection of Harmful Changes to the Soil and for the Remediation of Contaminated Sites	Relocation of dredged material in the first place, recycling instead of disposal of dredged material, reduction of negative effects on environment, involvement of polluters on dredging with water-sanitation-effect	Monitoring by bremenports GmbH & Co. KG	<a href="https://www.gesetze-im-internet.de/bbodschg/BJNR050210998.html">https://www.gesetze-im-internet.de/bbodschg/BJNR050210998.html</a>
				BBodSchV of 12.07.1999 last amended 09.07.2021	Federal Soil Protection Act - Act for the Protection of Harmful Changes to the Soil and for the Remediation of Contaminated Sites			<a href="http://www.gesetze-im-internet.de/bbodschv/BJNR155400999.html">http://www.gesetze-im-internet.de/bbodschv/BJNR155400999.html</a>
				BremBodSchG of 27.08.2002 last amended 20.10.2020	Bremen Soil Protection Act - Bremen's Act on the Protection of Soil			<a href="https://www.transparenz.bremen.de/metainformationen/bremisches-gesetz-zum-schutz-des-bodens-bremisches-bodenbeschutzgesetz-brembodschg-vom-27-august-2002-15782?asf=bremen203_tpgegesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d">https://www.transparenz.bremen.de/metainformationen/bremisches-gesetz-zum-schutz-des-bodens-bremisches-bodenbeschutzgesetz-brembodschg-vom-27-august-2002-15782?asf=bremen203_tpgegesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d</a>
				VO (EG) 1013/2006 - Abfall-Verbringungsverordnung of 14.06.2006 last amended 19.10.2020	Regulation (EC) No. 1013/2006 of the European Parliament and of the Council of 14 June 2006 on shipments of waste			<a href="https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:02006R1013-20210111&amp;from=DE">https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:02006R1013-20210111&amp;from=DE</a>
				AbfVerbrG of 19.07.2007 last amended 02.03.2023	Waste Shipment Act - Act on the Implementation of Regulation (EC) No. 1013/2006 on shipments of waste and the Basel Convention of 22 March 1989 on the Control of Transboundary Movements of Hazardous Waste and their Disposal			<a href="https://www.gesetze-im-internet.de/abfverbrg_2007/BJNR146210007.html">https://www.gesetze-im-internet.de/abfverbrg_2007/BJNR146210007.html</a>
				RL 2008/98/EG - Abfallrahmen-Richtlinie of 19.11.2008 last amended 30.05.2018	Directive 2008/98/EC on waste and repealing certain Directives			<a href="https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:02008L0098-20180705&amp;from=EN">https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:02008L0098-20180705&amp;from=EN</a>
A.9	Relocation of dredged material in open water, recycling or disposal	Water habitat/ water quality, hydrology & morphology, soil	bremenports GmbH & Co. KG, Division Manager Port Maintenance	KrWG of 24.02.2012 last amended 02.03.2023	Closed Substance Cycle and Waste Management Act - Act to promote recycling and to ensure environmentally compatible waste management	Relocation of dredged material in the first place, recycling instead of disposal of dredged material, reduction of negative effects on environment, involvement of polluters on dredging with water-sanitation-effect	Monitoring by bremenports GmbH & Co. KG	<a href="https://www.gesetze-im-internet.de/krg/BJNR021210012.html">https://www.gesetze-im-internet.de/krg/BJNR021210012.html</a>
				BremAGKrW-/AbfG of 23.11.1998 last amended 13.03.2024	Bremen's Act for Implementation of the Closed Substance Cycle and Waste Management Act			<a href="https://www.transparenz.bremen.de/sixcms/detail.php?gsid=bremen2014_tp.c.68287.de&amp;asf=bremen203_tpgegesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d">https://www.transparenz.bremen.de/sixcms/detail.php?gsid=bremen2014_tp.c.68287.de&amp;asf=bremen203_tpgegesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d</a>
				Regulations	Regulations as regards maintenance dredging in development authorizations in particular extensions of CT III, CT Illa, CT 4, port related turning area for ships (use of accredited methods)			
				Planning Schemes	Integrated Management Plan Weser (2012)	Planning frame; Sediment management concept		<a href="https://www.nlwkn.niedersachsen.de/natura2000/integrierte_bewirtschaftungsplante_stuare/weser/integrierter-bewirtschaftungsplan-weser-45641.html">https://www.nlwkn.niedersachsen.de/natura2000/integrierte_bewirtschaftungsplante_stuare/weser/integrierter-bewirtschaftungsplan-weser-45641.html</a>
				Strategy	Sustainable strategy	PERS-MPI: Disposal of dredged material PERS-ECI: Sediment quality	Monitoring by bremenports GmbH & Co. KG	<a href="https://www.bremenports.de/nachhaltigkeit/umweltmanagement">https://www.bremenports.de/nachhaltigkeit/umweltmanagement</a>

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<b>A. Port own aspects (Infrastructure)</b>								
A.10	Federal Soil Protection Act - Act for the Protection of Harmful Changes to the Soil and for the Remediation of Contaminated Sites	Air, soil, water, noise	bremenports GmbH & Co. KG, Division Manager Port Maintenance	<p><b>RL 2008/98/EG - Abfallrahmen-Richtlinie</b> of 19.11.2008 last amended 30.05.2018</p> <p><b>KrWG</b> of 24.02.2012 last amended 02.03.2023</p> <p><b>BremAGKrW-/AbfG</b> of 23.11.1998 last amended 13.03.2024</p> <p><b>RL 2000/60/EG - WRRL</b> of 23.10.2000 last amended 30.10.2014</p> <p><b>WHG</b> of 31.07.2009 last amended 22.12.2023</p> <p><b>BremWG</b> of 12.04.2011 last amended 24.11.2020</p> <p><b>BBodSchG</b> of 17.03.1998 last amended 25.02.2021</p> <p><b>BBodSchV</b> of 12.07.1999 last amended 09.07.2021</p> <p><b>BremBodSchG</b> of 27.08.2002 last amended 20.10.2020</p>	<p><b>Directive 2008/98/EC on waste and repealing certain Directives</b></p> <p>Closed Substance Cycle and Waste Management Act - Act to promote recycling and to ensure environmentally compatible waste management</p> <p>Bremen's Act for Implementation of the Closed Substance Cycle and Waste Management Act</p> <p>Directive 2000/60/EC establishing a framework for Community action in the field of water policy - Water Framework Directive (WFD)</p> <p>Federal Water Act - Act on Managing Water Resources</p> <p>Water Act of Bremen</p> <p>Federal Soil Protection Act - Act for the Protection of Harmful Changes to the Soil and for the Remediation of Contaminated Sites</p> <p>Federal Soil Protection Act - Act for the Protection of Harmful Changes to the Soil and for the Remediation of Contaminated Sites</p> <p>Bremen Soil Protection Act - Bremen's Act on the Protection of Soil</p>	<p>Aim: prevention, mitigation &amp; compensation of negative effects on the environment (Oil spills, noise, waste, transport of dangerous cargo)</p>	<p>Monitoring by GAA (trade supervisory office)</p>	<p><a href="https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:02008L0098-20180705&amp;from=EN">https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:02008L0098-20180705&amp;from=EN</a></p> <p><a href="https://www.gesetze-im-internet.de/krgw/BJNR021210012.html">https://www.gesetze-im-internet.de/krgw/BJNR021210012.html</a></p> <p><a href="https://www.transparenz.bremen.de/sixcms/detail.php?gsid=bremen2014_tp.c.68287.de&amp;sl=bremen203_tpgesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d">https://www.transparenz.bremen.de/sixcms/detail.php?gsid=bremen2014_tp.c.68287.de&amp;sl=bremen203_tpgesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d</a></p> <p><a href="https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:02000L0060-20141120&amp;from=EN">https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:02000L0060-20141120&amp;from=EN</a></p> <p><a href="http://www.gesetze-im-internet.de/whg_2009/BJNR258510009.html">http://www.gesetze-im-internet.de/whg_2009/BJNR258510009.html</a></p> <p><a href="https://www.transparenz.bremen.de/metainformationen/bremisches-wassergesetz-bremwg-vom-12-april-2011-160048?sl=bremen203_tpgesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d">https://www.transparenz.bremen.de/metainformationen/bremisches-wassergesetz-bremwg-vom-12-april-2011-160048?sl=bremen203_tpgesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d</a></p> <p><a href="https://www.gesetze-im-internet.de/bbodschg/BJNR050210998.html">https://www.gesetze-im-internet.de/bbodschg/BJNR050210998.html</a></p> <p><a href="https://www.gesetze-im-internet.de/bbodschv_2023/">https://www.gesetze-im-internet.de/bbodschv_2023/</a></p> <p><a href="https://www.transparenz.bremen.de/metainformationen/bremisches-gesetz-zum-schutz-des-bodens-bremisches-bodenutzungsgesetz-brembodschg-vom-27-august-2002-157828?sl=bremen203_tpgesetz.c.55340.de&amp;tem">https://www.transparenz.bremen.de/metainformationen/bremisches-gesetz-zum-schutz-des-bodens-bremisches-bodenutzungsgesetz-brembodschg-vom-27-august-2002-157828?sl=bremen203_tpgesetz.c.55340.de&amp;tem</a></p>

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<b>A. Port own aspects (Infrastructure)</b>							
A.10	Federal Soil Protection Act - Act for the Protection of Harmful Changes to the Soil and for the Remediation of Contaminated Sites	Air, soil, water, noise	bremenports GmbH & Co. KG, Division Manager Port Maintenance	RL 2008/50/EG of 21.05.2008 last amended 27.03.2020	Directive 2008/50/EG on ambient air quality and cleaner air for Europe	Aim: prevention, mitigation	Monitoring by GAA (trade supervisory office)
				BlmSchG of 17.05.2013 last amended 26.07.2023	Federal Immission Control Act - Act on the Prevention of Harmful Effects on the Environment caused by Air Pollution, Noise, Vibrations and Similar Phenomena		<a href="https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:02008L0050-20150918&amp;of=EN">https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:02008L0050-20150918&amp;of=EN</a>
				16. BlmSchV of 12.06.1990 last amended 04.11.2020	Traffic Noise Protection Ordinance - Sixteenth Ordinance for Implementation of the Federal Immission Control Act		<a href="https://www.gesetze-im-internet.de/bimschv_16/BJNR010360990.html">https://www.gesetze-im-internet.de/bimschv_16/BJNR010360990.html</a>
				AltöLV of 16.04.2002 last amended 05.10.2020	Bye-laws concerning waste oil (2002)		<a href="http://www.gesetze-im-internet.de/alt_lv/BJNR023350987.html">http://www.gesetze-im-internet.de/alt_lv/BJNR023350987.html</a>
				AltholzV of 15.08.2002 last amended 19.06.2020	Ordinance on the management of waste wood (2002)		<a href="http://www.gesetze-im-internet.de/altholzv/BJNR330210002.html">http://www.gesetze-im-internet.de/altholzv/BJNR330210002.html</a>
				GGBefG of 07.07.2009 last modified 02.03.2023	Law on the Transport of Dangerous Goods (2009)		<a href="https://www.gesetze-im-internet.de/gefahrgutg/BJNR021210975.html">https://www.gesetze-im-internet.de/gefahrgutg/BJNR021210975.html</a>
				GGVSEB of 11.03.2019 last amended 18.08.2023	Dangerous Goods Ordinance - Road, Rail and Inland Waterway - Regulation on the national and international transport of dangerous goods by road, rail and inland waterway		<a href="http://www.gesetze-im-internet.de/ggvseb/BJNR138900009.html">http://www.gesetze-im-internet.de/ggvseb/BJNR138900009.html</a>
				GefStoffV of 26.11.2010 last amended 21.07.2021	Hazardous Substances Ordinance - Ordinance on Protection from Hazardous Substances		<a href="https://www.gesetze-im-internet.de/gefstoffv_2010/BJNR164400010.html">https://www.gesetze-im-internet.de/gefstoffv_2010/BJNR164400010.html</a>
				Regulations of 14.06.2016 last amended 20.10.2020	Bremen bye-law on the allocation of responsibility for implementation of statutory regulations pursuant to the Act on the transport of dangerous goods and the Convention for Safe Containers from 14.06.2016		<a href="https://www.transparenz.bremen.de/metainformationen/bremische-verordnung-ueber-zustaendigkeiten-fuer-die-ausfuehrung-von-rechtsvorschriften-nach-dem-gesetz-ueber-die-befoerderung-gefahrlicher-gueter-und-dem-gesetz-zu-dem-uebereinkommen-ueber-sichere-container-vom-14-juni-2016-157860?asf=bremen203_tpgesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d">https://www.transparenz.bremen.de/metainformationen/bremische-verordnung-ueber-zustaendigkeiten-fuer-die-ausfuehrung-von-rechtsvorschriften-nach-dem-gesetz-ueber-die-befoerderung-gefahrlicher-gueter-und-dem-gesetz-zu-dem-uebereinkommen-ueber-sichere-container-vom-14-juni-2016-157860?asf=bremen203_tpgesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d</a>
				BrHafenO of 24.04.2001 last amended 23.11.2023	Bremen Port Operations Act of 21 November 2000, last amended by Article 4 of the Act on 19.10.2021		<a href="https://www.transparenz.bremen.de/metainformationen/bremische-hafenordnung-vom-24-april-2001-186323?asf=bremen203_tpgesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d">https://www.transparenz.bremen.de/metainformationen/bremische-hafenordnung-vom-24-april-2001-186323?asf=bremen203_tpgesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d</a>
				BrHafenbetrG of 24.11.2000 last amended 21.06.2022	Bremen Port Regulations from 24.04.2001		<a href="https://www.transparenz.bremen.de/metainformationen/bremisches-hafenbetriebsgesetz-vom-21-november-2000-181680?asf=bremen203_tpgesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d">https://www.transparenz.bremen.de/metainformationen/bremisches-hafenbetriebsgesetz-vom-21-november-2000-181680?asf=bremen203_tpgesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d</a>

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Ref. No.	Environmental impact by port activities	Exposure path-way / Impact on	Responsible organisation	Applicable legislation / strategies / programmes (green: international legislation, red: European legislation, blue: Federal legislation, black: state regulations)	Legal and other requirements	Control measures	URL
<b>A. Port own aspects (Infrastructure)</b>							
A.11	Contamination of water and soils by the use of port's own facilities (technical facilities and ships)	Dangerous goods, waste, water, soil, air	bremenports GmbH & Co. KG, General Manager	<p><b>RL 2008/98/EG - Abfallrahmen-Richtlinie</b> of 19.11.2008 last amended 30.05.2018</p> <p><b>KrWG</b> of 24.02.2012 last amended 02.03.2023</p> <p><b>AbfBeauftrV</b> of 02.12.2016 last amended 28.04.2022</p> <p><b>LAGA M20</b></p> <p><b>BremAGKrW-/AbfG</b> of 23.11.1998 last amended 13.03.2024</p> <p><b>Plans</b> of 19.02.2018 last amended 24.04.2020</p> <p><b>RL (EU) 2019/883</b> of 17.04.2019</p> <p><b>RL 2007/71/EG</b> of 13.12.2007</p> <p><b>BremSAEG</b> of 24.11.2020 last amended 28.03.2023</p> <p><b>RL 2000/60/EG - WRRL</b> of 23.10.2000 last amended 30.10.2014</p> <p><b>WHG</b> of 31.07.2009 last amended 22.12.2023</p> <p><b>BremWG</b> of 12.04.2011 last amended 24.11.2020</p>	Aim: prevention, mitigation & compensation of negative effects on the environment	<p>Waste monitoring by waste inspector; Dangerous goods monitoring by GAA ; Water, soil and air monitoring by environmental agency</p>	<p><a href="https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:02008L0098-20180705&amp;from=EN">https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:02008L0098-20180705&amp;from=EN</a></p> <p><a href="https://www.gesetze-im-internet.de/krg/BJNR021210012.html">https://www.gesetze-im-internet.de/krg/BJNR021210012.html</a></p> <p><a href="https://www.gesetze-im-internet.de/abfbeauftrv_2017/BJNR278900016.html">https://www.gesetze-im-internet.de/abfbeauftrv_2017/BJNR278900016.html</a></p> <p><a href="https://www.laga-online.de/Publikationen-50-Mitteilungen.html">https://www.laga-online.de/Publikationen-50-Mitteilungen.html</a></p> <p><a href="https://www.transparenz.bremen.de/sixcms/detail.php?gsid=bremen2014_tp.c.68287.de&amp;sl=bremen203_tpgesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d">https://www.transparenz.bremen.de/metainformationen/bekanntmachung-des-abfallbewirtschaftungsplans-fuer-die-oeffentlichen-haefen-der-freien-hansestadt-bremen-stand-2017-153420?sl=bremen203_tpgesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d</a></p> <p><a href="https://eur-lex.europa.eu/legal-content/DE/TXT/?qid=1713864378288&amp;uri=CELEX%3A32019L0083">https://eur-lex.europa.eu/legal-content/DE/TXT/?qid=1713864378288&amp;uri=CELEX%3A32019L0083</a></p> <p><a href="https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:32007L0071&amp;from=DE">https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:32007L0071&amp;from=DE</a></p> <p><a href="https://www.transparenz.bremen.de/metainformationen/bremisches-gesetz-ueber-hafenauflageeinrichtungen-fuer-die-entladung-von-abfaellen-von-schiffen-bremisches-schiffsabfall-entsorgungsgesetz-bremsaeg-vom-24-november-2020-190880?sl=bremen203_tpgesetz.c.55">https://www.transparenz.bremen.de/metainformationen/bremisches-gesetz-ueber-hafenauflageeinrichtungen-fuer-die-entladung-von-abfaellen-von-schiffen-bremisches-schiffsabfall-entsorgungsgesetz-bremsaeg-vom-24-november-2020-190880?sl=bremen203_tpgesetz.c.55</a></p> <p><a href="https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:02000L0060-20141120&amp;from=EN">https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:02000L0060-20141120&amp;from=EN</a></p> <p><a href="http://www.gesetze-im-internet.de/whg_2009/BJNR258510009.html">http://www.gesetze-im-internet.de/whg_2009/BJNR258510009.html</a></p> <p><a href="https://www.transparenz.bremen.de/metainformationen/bremisches-wassergesetz-bremwg-vom-12-april-2011-160048?sl=bremen203_tpgesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d">https://www.transparenz.bremen.de/metainformationen/bremisches-wassergesetz-bremwg-vom-12-april-2011-160048?sl=bremen203_tpgesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d</a></p>

Twin-Ports of Bremen/Bremerhaven								
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<b>A. Port own aspects (Infrastructure)</b>								
A.11	Contamination of water and soils by the use of port's own facilities (technical facilities and ships)	Dangerous goods, waste, water, soil, air	bremenports GmbH & Co. KG, General Manager	BBodSchG of 17.03.1998 last amended 25.02.2021	Federal Soil Protection Act - Act for the Protection of Harmful Changes to the Soil and for the Remediation of Contaminated Sites	Aim: prevention, mitigation & compensation of negative effects on the environment	Waste monitoring by waste inspector; Dangerous goods monitoring by GAA ; Water, soil and air monitoring by environmental agency	<a href="https://www.gesetze-im-internet.de/bbodschg/BJNR050210998.html">https://www.gesetze-im-internet.de/bbodschg/BJNR050210998.html</a>
				BBodSchV of 12.07.1999 last amended 09.07.2021	Federal Soil Protection Act - Act for the Protection of Harmful Changes to the Soil and for the Remediation of Contaminated Sites		<a href="https://www.gesetze-im-internet.de/bbodschv_2023/">https://www.gesetze-im-internet.de/bbodschv_2023/</a>	
				BremBodSchG of 27.08.2002 last amended 20.10.2020	Bremen Soil Protection Act - Bremen's Act on the Protection of Soil		<a href="https://www.transparenz.bremen.de/metainformationen/bremisches-gesetz-zum-schutz-des-bodens-bremisches-bodenschutzgesetz-brembodschg-vom-27-august-2002-157828?asI=bremen203_tpgesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d">https://www.transparenz.bremen.de/metainformationen/bremisches-gesetz-zum-schutz-des-bodens-bremisches-bodenschutzgesetz-brembodschg-vom-27-august-2002-157828?asI=bremen203_tpgesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d</a>	
				BlmSchG of 17.05.2013 last amended 26.07.2023	Federal Immission Control Act - Act on the Prevention of Harmful Effects on the Environment caused by Air Pollution, Noise, Vibrations and Similar Phenomena		<a href="https://www.gesetze-im-internet.de/bimschG/BJNR007210974.html">https://www.gesetze-im-internet.de/bimschG/BJNR007210974.html</a>	
				16. BlmSchV of 12.06.1990 last amended 04.11.2020	Traffic Noise Protection Ordinance - Sixteenth Ordinance for Implementation of the Federal Immission Control Act		<a href="https://www.gesetze-im-internet.de/bimschV_16/BJNR010360990.html">https://www.gesetze-im-internet.de/bimschV_16/BJNR010360990.html</a>	
				AltöLV of 16.04.2002 last amended 05.10.2020	Bye-laws concerning waste oil (2002)		<a href="http://www.gesetze-im-internet.de/alt_lv/BJNR023350987.html">http://www.gesetze-im-internet.de/alt_lv/BJNR023350987.html</a>	
				GGBefG of 07.07.2009 last amended 02.03.2023	Dangerous Goods Transport Act - Act on the Transport of Dangerous Goods		<a href="https://www.gesetze-im-internet.de/gefahrgutG/BJNR021210975.html">https://www.gesetze-im-internet.de/gefahrgutG/BJNR021210975.html</a>	
				Regulations of 14.06.2016 last amended 20.10.2020	Bremen bye-law on the allocation of responsibility for implementation of statutory regulations pursuant to the Act on the transport of dangerous goods and the Convention for Safe Containers from 14.06.2016		<a href="https://www.transparenz.bremen.de/metainformationen/bremische-verordnung-ueber-zustaendigkeiten-fuer-die-aufuehrung-von-rechtsvorschriften-nach-dem-gesetz-uber-die-befoerderung-gefaehrlicher-gueter-und-dem-gesetz-zu-dem-uebereinkommen-ueber-sichere-containern-vom-14-juni-2016-157860?asI=bremen203_tpgesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d">https://www.transparenz.bremen.de/metainformationen/bremische-verordnung-ueber-zustaendigkeiten-fuer-die-aufuehrung-von-rechtsvorschriften-nach-dem-gesetz-uber-die-befoerderung-gefaehrlicher-gueter-und-dem-gesetz-zu-dem-uebereinkommen-ueber-sichere-containern-vom-14-juni-2016-157860?asI=bremen203_tpgesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d</a>	
				BrHafenO of 24.04.2001 last amended 23.11.2022	Bremen Port Regulations		<a href="https://www.transparenz.bremen.de/metainformationen/bremische-hafenordnung-vom-24-april-2001-186323?asI=bremen203_tpgesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d">https://www.transparenz.bremen.de/metainformationen/bremische-hafenordnung-vom-24-april-2001-186323?asI=bremen203_tpgesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d</a>	
				BrHafenbetrG of 24.11.2000 last amended 21.06.2022	Bremen Port Operations Act		<a href="https://www.transparenz.bremen.de/metainformationen/bremisches-hafenbetriebsgesetz-vom-21-november-2000-181680?asI=bremen203_tpgesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d">https://www.transparenz.bremen.de/metainformationen/bremisches-hafenbetriebsgesetz-vom-21-november-2000-181680?asI=bremen203_tpgesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d</a>	

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Ref. No.	Environmental impact by port activities	Exposure path-way / Impact on	Responsible organisation	Applicable legislation / strategies / programmes (green: international legislation, red: European legislation, blue: Federal legislation, black: state regulations)	Legal and other requirements	Control measures	URL
<b>A. Port own aspects (Infrastructure)</b>							
A.12	Contamination of water and soils by ships and cargo operation	Dangerous goods, waste, water, soil, air	Harbour Master Office, units 21&31	<p>MARPOL 73/78 of the year 1973</p> <p>VO (EU) 1143/2014 of 22.10.2014 last amended 26.10.2016</p> <p>RL (EU) 2019/883 of 17.04.2019</p> <p>CDNI: BinSchAbfÜbkAG of 27 January 2021</p> <p>BremSAEG of 24.11.2020 last amended 28.03.2023</p> <p>RL 2008/98/EG - Abfallrahmen-Richtlinie of 19.11.2008 last amended 30.05.2018</p> <p>KrWG of 24.02.2012 last amended 02.03.2023</p> <p>Plans of 19.02.2018 last amended 24.04.2020</p>	<p>International Convention for the Prevention of Marine Pollution from Ships (1973)</p> <p>Regulation (EU) No. 1143/2014 of the European Parliament and of the Council of 22 October 2014 on the prevention and management of the introduction and spread of invasive alien species</p> <p>Directive (EU) 2019/883 of the European Parliament and of the Council of 17 April 2019 on port reception facilities for the delivery of waste from ships, amending Directive 2010/65/EU and repealing Directive 2000/59/EG</p> <p>Act implementing the Convention of 9 September 1996 concerning the collection, transfer and acceptance of waste from the Rhine and inland shipping</p> <p>Bremen Act on Ship Waste Disposal - Bremen Act on port reception facilities for ship-generated waste and discharging waste from ships</p> <p>Directive 2008/98/EC on waste and repealing certain Directives</p> <p>Closed Substance Cycle and Waste Management Act - Act to promote recycling and to ensure environmentally compatible waste management</p> <p>Waste Management Plan for the Public Ports of the Free Hanseatic City of Bremen (2015)</p>	<p>Prevention of soil, air and water contamination</p> <p>Inspections on ships and in terminals by Harbour Master Office</p>	<p><a href="https://www.gesetze-im-internet.de/intmiersch_bk1973g/BJNR200020982.html">https://www.gesetze-im-internet.de/intmiersch_bk1973g/BJNR200020982.html</a></p> <p><a href="https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:02014R1143-20191214&amp;from=EN">https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:02014R1143-20191214&amp;from=EN</a></p> <p><a href="https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:32019L0883&amp;from=DE">https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:32019L0883&amp;from=DE</a></p> <p><a href="https://www.gesetze-im-internet.de/binschabf_bkag/BJNR013000021.html">https://www.gesetze-im-internet.de/binschabf_bkag/BJNR013000021.html</a></p> <p><a href="https://www.transparenz.bremen.de/metainformationen/bremisches-gesetz-ueber-hafenauffangeeinrichtungen-fuer-die-entladung-von-abfaellen-von-schiffen-bremisches-schiffssabfall-entsorgungsgesetz-bremsaeg-vom-24-november-2020-190880?asl=bremen203_tpgesetz.c.55">https://www.transparenz.bremen.de/metainformationen/bremisches-gesetz-ueber-hafenauffangeeinrichtungen-fuer-die-entladung-von-abfaellen-von-schiffen-bremisches-schiffssabfall-entsorgungsgesetz-bremsaeg-vom-24-november-2020-190880?asl=bremen203_tpgesetz.c.55</a></p> <p><a href="https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:02008L0098-20180705&amp;from=EN">https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:02008L0098-20180705&amp;from=EN</a></p> <p><a href="https://www.gesetze-im-internet.de/krg/BJNR021210012.html">https://www.gesetze-im-internet.de/krg/BJNR021210012.html</a></p> <p><a href="https://www.transparenz.bremen.de/metainformationen/bekanntmachung-des-abfallbewirtschaftungsplans-fuer-die-oeffentlichen-haefen-der-freien-hansestadt-bremen-stand-2017-153420?asl=bremen203_tpgesetz.c.55340.de&amp;template=20_gp_lfg_meta_detail_d">https://www.transparenz.bremen.de/metainformationen/bekanntmachung-des-abfallbewirtschaftungsplans-fuer-die-oeffentlichen-haefen-der-freien-hansestadt-bremen-stand-2017-153420?asl=bremen203_tpgesetz.c.55340.de&amp;template=20_gp_lfg_meta_detail_d</a></p>

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<b>A. Port own aspects (Infrastructure)</b>							
A.12	Contamination of water and soils by ships and cargo operation	Dangerous goods, waste, water, soil, air	Harbour Master Office, units 21&31	RL 2000/60/EG - WRRL  of 23.10.2000 last amended 30.10.2014	Directive 2000/60/EC establishing a framework for Community action in the field of water policy - Water Framework Directive (WFD)	Prevention of soil, air and water contamination	Inspections on ships and in terminals by Harbour Master Office
				WHG  of 31.07.2009 last amended 22.12.2023	Federal Water Act - Act on Managing Water Resources		
				BremWG  of 12.04.2011 last amended 24.11.2020	Water Act of Bremen		
				GGBefG  of 07.07.2009	Law on the Transport of Dangerous Goods (2009)		
				SprengG  of 10.09.2002 last amended 02.03.2023	Federal Explosives Act - Act on Explosive Substances		
				GGVSEB  of 26.3.2021 last amended 18.08.2023	Regulation on the national and international transport of dangerous goods by road, rail and inland waterway*)		
				GefStoffV  of 26.11.2010 last amended 21.07.2021	Ordinance on Protection from Hazardous Substances*) (Hazardous Substances Ordinance - GefStoffV)		
				BremGBefVO  of 14.06.2016 last amended 20.10.2020	Bremen bye-law on the allocation of responsibilities for implementation of statutory regulations pursuant to the Act on the Transport of Dangerous Goods and the Act on the Convention for Safe Containers		
				BrHafenO  of 24.04.2001 last amended 23.11.2022	Bremen Port Regulations		
				BrHafenbetrG  of 24.11.2000 last amended 21.06.2022	Bremen Port Operations Act		
				Strategy	Sustainable strategy	PERS-MPI: Detected deficiencies at ship inspections	Monitoring by the Harbour Master Office  <a href="https://www.bremenports.de/nachhaltigkeit/umweltmanagement">https://www.bremenports.de/nachhaltigkeit/umweltmanagement</a>

Register of significant environmental aspects							
Ref. No.	Environmental impact by port activities	Exposure path-way / Impact on	Responsible organisation	Applicable legislation / strategies / programmes (green: international legislation, red: European legislation, blue: Federal legislation, black: State legislation)	Legal and other requirements	Control measures	URL
<b>B. Port User Aspects (Superstructur)</b>							
<b>B. I. Terminal Operators</b>							
B.I.1	Noise emissions from handling	Neighbouring population	e.g. EUROGATE (CTB), MSC Gate, NTB, BLG Logistics Group, Weserport	BlmSchG of 17.05.2013 last amended 26.07.2023	Federal Immission Control Act - Act on the Prevention of Harmful Effects on the Environment caused by Air Pollution, Noise, Vibrations and Similar Phenomena	All legal standards transferred to the operator agreements	CT 4-Noise Monitoring: noise reduction action as regards loud events
				Permits/ Judgements	Authorizations - in particular extensions of CT 4, CT IIIa, CT III		
					Court judgement as regards the extension of CT 4		
					Settlement in court as regards the determination of constitutionality of the development plans CT II and III		
B.I.2	Contamination of water, soil and air (oil, pesticides, gases)	Dangerous goods, air, water, soil, workers, neighbouring population	e.g. EUROGATE (CTB), MSC Gate, NTB, BLG Logistics Group, Weserport	AFIR Regulation Formal acceptance 25.07.2023 of 13.09.2023	REGULATION (EU) OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL for the deployment of an alternative fuels infrastructure and to repeal Directive 2014/94/EU	Offer of shore power supply for passenger and container vessels by 2030 (depending on size of vessel)	<a href="https://eur-lex.europa.eu/legal-content/DE/TXT/?uri=CELEX:32023R1804">https://eur-lex.europa.eu/legal-content/DE/TXT/?uri=CELEX:32023R1804</a>
				GGBefG of 07.07.2009 last amended 02.03.2023	Law on the Transport of Dangerous Goods (2009)		<a href="https://www.gesetze-im-internet.de/gefahrgut/BJNR021210975.html">https://www.gesetze-im-internet.de/gefahrgut/BJNR021210975.html</a>
				GGVSEB of 26.3.2021 last amended 18.08.2023	Regulation on the national and international transport of dangerous goods by road, rail and inland waterway*		<a href="https://www.gesetze-im-internet.de/ggvseb/BJNR138900009.html">https://www.gesetze-im-internet.de/ggvseb/BJNR138900009.html</a>
				GefStoffV of 26.11.2010 last amended 21.07.2021	Ordinance on Protection from Hazardous Substances*) (Hazardous Substances Ordinance - GefStoffV)		
				BremGGBefVO of 14.06.2016 last amended 20.10.2020	Bremen bye-law on the allocation of responsibilities for implementation of statutory regulations pursuant to the Act on the Transport of Dangerous Goods and the Act on the Convention for Safe Containers from 14.06.2016		<a href="https://www.transparenz.bremen.de/metainformationen/bremische-verordnung-ueber-zustaendigkeiten-fuer-die-ausfuehrung-von-rechtsvorschriften-nach-dem-gesetz-ueber-die-befoerderung-gefaehrlicher-gueter-und-dem-gesetz-zu-dem-uebereinkommen-ueber-sichere-container-vom-14-juni-2016-157860?asf=bremen203_tpgeetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d">https://www.transparenz.bremen.de/metainformationen/bremische-verordnung-ueber-zustaendigkeiten-fuer-die-ausfuehrung-von-rechtsvorschriften-nach-dem-gesetz-ueber-die-befoerderung-gefaehrlicher-gueter-und-dem-gesetz-zu-dem-uebereinkommen-ueber-sichere-container-vom-14-juni-2016-157860?asf=bremen203_tpgeetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d</a>
				BrHafenO of 24.04.2001 last amended 23.11.2022	Bremen Port Regulations		<a href="https://www.transparenz.bremen.de/metainformationen/bremische-hafenordnung-vom-24-april-2001-186323?asf=bremen203_tpgeetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d">https://www.transparenz.bremen.de/metainformationen/bremische-hafenordnung-vom-24-april-2001-186323?asf=bremen203_tpgeetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d</a>
				Permits	Approval of installations, particularly authorizations in relation to CT 4, CT IIIa, CT III		

Register of significant environmental aspects							
Ref. No.	Environmental impact by port activities	Exposure path-way / Impact on	Responsible organisation	Applicable legislation / strategies / programmes (green: international legislation, red: European legislation, blue: Federal legislation, black: State legislation)	Legal and other requirements	Control measures	URL
<b>B. Port User Aspects (Superstructur)</b>							
<b>B. I. Terminal Operators</b>							
B.I.3	Light emissions through cargo handling facilities	Air, neighbouring population/animals	e.g. EUROGATE (CTB), MSC Gate, NTB, BLG Logistics Group, Weserport	BlmSchG of 17.05.2013 last amended 26.07.2023	Federal Immission Control Act - Act on the Prevention of Harmful Effects on the Environment caused by Air Pollution, Noise, Vibrations and Similar Phenomena	Prevention and mitigation of light emissions; Keep facilities state of the art	<a href="https://www.gesetze-im-internet.de/bimschgbjnr007210974.html">https://www.gesetze-im-internet.de/bimschgbjnr007210974.html</a>
				Permits	Approval of installations, particularly authorizations in relation to CT 4, CT IIIa, CT III		
B.I.4	Climate protection / energy efficiency	Climate	z.B. EUROGATE (CTB), MSC Gate, NTB, BLG Logistics Group, Weserport	European Climate Law of 30 June 2021	REGULATION (EU) 2021/1119 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL establishing the framework for achieving climate neutrality		<a href="https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:32021R1119&amp;from=DE">https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:32021R1119&amp;from=DE</a>
				Federal Climate Change Act (KSG) of 12.12.2019 last amended 18.08.2021	Act on the adoption of a Federal Climate Change Act and to amend other statutory provisions		
				BremKEG of 24.03.2015 last amended 28.03.2023	Bremen Climate Protection and Energy Act		<a href="https://www.transparenz.bremen.de/metainformationen/bremisches-klimaschutz-und-energiegesetz-bremkeg-vom-24-maerz-2015-190933?asf=bremen203_tpgeetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d">https://www.transparenz.bremen.de/metainformationen/bremisches-klimaschutz-und-energiegesetz-bremkeg-vom-24-maerz-2015-190933?asf=bremen203_tpgeetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d</a>
				Energy Efficiency Act - EnEFG of 13.11.2023	Act to increase energy efficiency in Germany		
				Building Energy Act - GEG of 08.08.2020 last amended 16.10.2023 in force 01.10.2024	Act to save energy and promote the use of renewable energy for heating/cooling requirements in buildings		<a href="https://www.gesetze-im-internet.de/enge/index.html">https://www.gesetze-im-internet.de/enge/index.html</a>
				EDL-G of 04.11.2010 last amended 13.11.2023	Act on Energy Services and other Energy Efficiency Measures		
				EEG 2023 of 21.07.2014 last amended 05.02.2024	Renewable Energy Sources Act - Act for the Expansion of Renewable Energy Sources		<a href="https://www.gesetze-im-internet.de/eeg_2014/Bjnr106610014.html">https://www.gesetze-im-internet.de/eeg_2014/Bjnr106610014.html</a>
					Continuation of climate protection strategy of the Federal Land of Bremen		

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<b>B. Port User Aspects (Superstructur)</b>							
<b>B. II. Ocean Carrier/Shipping Lines/Cruise Liner</b>							
B.II.1	Ship noise emissions	Air, neighbouring population	e.g.: Maersk Line, MSC, CMA CGM, Hapag Lloyd, WWL, Eukor Car Carriers, NYK Line, K-Line, Yang Ming, Glovis, , UECC	There are no IMO-, EU-, Federal- or State-legal requirements for the design and operation of ships so far.			Prevention and mitigation of light emissions; Keep facilities state of the art
B.II.2	Handling/stowing of dangerous cargo, oil, pesticides, gases (particularly by accidents)	water, soil, air, workers, neighboring population	e.g.: Maersk Line, MSC, CMA CGM, Hapag Lloyd, WWL, Eukor Car Carriers, NYK Line, K-Line, Yang Ming, Glovis, , UECC	MARPOL 73/78  of the year 1973 last amended 25.11.2015	International Convention for the Prevention of Marine Pollution from Ships (1973)	Prevention of water, soil and air contamination, Emergency plans	Event-related Monitoring by the Harbour Master Office
				UVV See / DGUV Vorschrift 84  of 01.04.2018	Accident Prevention Regulations for Shipping Enterprises		<a href="https://www.gesetze-im-internet.de/intmeersch_bk1973g/BJNR200020982.html">https://www.gesetze-im-internet.de/intmeersch_bk1973g/BJNR200020982.html</a>
				GGBefG  of 07.07.2009 last amended 02.03.2023	Law on the Transport of Dangerous Goods		<a href="https://www.bg-verkehr.de/redaktion/medien-und-downloads/informationen/die-bg-verkehr/uvv-seeschiffahrt-genehmigungsfassung-052017.pdf">https://www.bg-verkehr.de/redaktion/medien-und-downloads/informationen/die-bg-verkehr/uvv-seeschiffahrt-genehmigungsfassung-052017.pdf</a>
				GGVSee  of 21.10.2019 last amended 12.12.2019	Dangerous Goods Ordinance Sea - Ordinance on the Transport of Dangerous Goods by Marine Shipping		<a href="https://www.gesetze-im-internet.de/ggvsee_2015/GGVSee.pdf">https://www.gesetze-im-internet.de/ggvsee_2015/GGVSee.pdf</a>
				BremGBefVO  of 14.06.2016 last amended 20.10.2020	Bremen bye-law on the allocation of responsibilities for implementation of statutory regulations pursuant to the Act on the Transport of Dangerous Goods and the Act on the Convention for Safe Containers from 14.06.2016.		<a href="https://www.transparenz.bremen.de/metainformationen/bremische-verordnung-uber-zustaendigkeiten-fuer-die-ausfuehrung-von-rechtsvorschriften-nach-dem-gesetz-uber-die-befoerderung-gefaehrlicher-gueter-und-dem-gesetz-zu-dem-uebereinkommen-ueber-sichere-container-vom-14-juni-2016-157860?asId=bremen203_tpgesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d">https://www.transparenz.bremen.de/metainformationen/bremische-verordnung-uber-zustaendigkeiten-fuer-die-ausfuehrung-von-rechtsvorschriften-nach-dem-gesetz-uber-die-befoerderung-gefaehrlicher-gueter-und-dem-gesetz-zu-dem-uebereinkommen-ueber-sichere-container-vom-14-juni-2016-157860?asId=bremen203_tpgesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d</a>
				BrHafenO  of 24.04.2001 last amended 23.11.2022	Bremen Port Regulations		<a href="https://www.transparenz.bremen.de/metainformationen/bremische-hafenordnung-vom-24-april-2001-186323?asId=bremen203_tpgesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d">https://www.transparenz.bremen.de/metainformationen/bremische-hafenordnung-vom-24-april-2001-186323?asId=bremen203_tpgesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d</a>
				RL 2000/60/EG - WRRL  of 23.10.2000 last amended 30.10.2014	Directive 2000/60/EC establishing a framework for Community action in the field of water policy - Water Framework Directive (WFD)		<a href="https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:02000L0060-20141120&amp;from=EN">https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:02000L0060-20141120&amp;from=EN</a>
				WHG  of 31.07.2009 last amended 22.12.2023	Federal Water Act - Act on Managing Water Resources		<a href="http://www.gesetze-im-internet.de/whg_2009/BJNR258510009.html">http://www.gesetze-im-internet.de/whg_2009/BJNR258510009.html</a>
				BremWG  of 12.04.2011 last amended 24.11.2020	Water Act of Bremen		<a href="https://www.transparenz.bremen.de/metainformationen/bremisches-wassergesetz-bremwg-vom-12-april-2011-160048?asId=bremen203_tpgesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d">https://www.transparenz.bremen.de/metainformationen/bremisches-wassergesetz-bremwg-vom-12-april-2011-160048?asId=bremen203_tpgesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d</a>

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<b>B. Port User Aspects (Superstructur)</b>							
<b>B. II. Ocean Carrier/Shipping Lines/Cruise Liner</b>							
B.II.3	Air pollution	Air, neighboring population, animals, plants  e.g.: Maersk Line, MSC, CMA CGM, Hapag Lloyd, WWL, Eukor Car Carriers, NYK Line, K-Line, Yang Ming, Glovis, UECC	MARPOL 73/78  of the year 1973 last amended 25.11.2015	International Convention for the Prevention of Marine Pollution from Ships (1973)	Prevention of air contamination  Monitoring by environmental agency (SKUMS); Air measurement station Bremerhaven: monitoring by the Federal Maritime and Hydrographic Agency (BSH)	The best ships are rewarded (ESI Score)  Assessments, Audits of self-declaration	<a href="https://www.gesetze-im-internet.de/intmeersch_bk1973g/BJNR200020982.html">https://www.gesetze-im-internet.de/intmeersch_bk1973g/BJNR200020982.html</a>
			RL 2016/802/EU  of 21.05.2016	Directive 2016/802 / EU on reducing the sulfur content of certain liquid fuels			<a href="https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:32016L0802&amp;from=DE">https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:32016L0802&amp;from=DE</a>
			AFIR Regulation  Formal acceptance 25.07.2023 of 13.09.2023	REGULATION (EU) OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL for the deployment of an alternative fuels infrastructure and to repeal Directive 2014/94/EU			<a href="https://eur-lex.europa.eu/legal-content/DE/TXT/?uri=CELEX:32023R1804">https://eur-lex.europa.eu/legal-content/DE/TXT/?uri=CELEX:32023R1804</a>
			SeeUmwVerhV  of 13.08.2014 last amended 13.12.2019	Maritime Environmental Performance Ordinance - Ordinance on Environmentally Compatible Conduct in Marine Shipping			<a href="https://www.gesetze-im-internet.de/seeumwverhv/BJNR137110014.html">https://www.gesetze-im-internet.de/seeumwverhv/BJNR137110014.html</a>
			BrHafenO  of 24.04.2001 last amended 23.11.2022	Bremen Port Regulations			<a href="https://www.transparenz.bremen.de/metainformationen/bremische-hafenordnung-vom-24-april-2001-186323?asf=bremen203_tpgeetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d">https://www.transparenz.bremen.de/metainformationen/bremische-hafenordnung-vom-24-april-2001-186323?asf=bremen203_tpgeetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d</a>
			BrHafenbetrG  of 24.11.2000 last amended 21.06.2022	Bremen Port Operations Act			<a href="https://www.transparenz.bremen.de/metainformationen/bremisches-hafenbetriebsgesetz-vom-21-november-2000-181680?asf=bremen203_tpgeetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d">https://www.transparenz.bremen.de/metainformationen/bremisches-hafenbetriebsgesetz-vom-21-november-2000-181680?asf=bremen203_tpgeetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d</a>
			ESI	Environmental Ship Index (ESI)			<a href="https://www.environmentalshipindex.org/">https://www.environmentalshipindex.org/</a>

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<b>B. Port User Aspects (Superstructur)</b>								
<b>B. II. Ocean Carrier/Shipping Lines/Cruise Liner</b>								
B.II.4	Ship waste	Water	Shipowners/ charterer: e.g. e.g.: Maersk Line, MSC, CMA CGM, Hapag Lloyd, WWL, Eukor Car Carriers, NYK Line, K-Line, Yang Ming, Glovis, UECC	MARPOL 73/78  of the year 1973 last amended 25.11.2015	International Convention for the Prevention of Marine Pollution from Ships (1973)	No special fee system for reasonable amounts of garbage (no dangerous goods) and sludge	Monitoring by the Harbour Master Office	<a href="https://www.gesetze-im-internet.de/intmeersch_bk1973g/BJNR200020982.html">https://www.gesetze-im-internet.de/intmeersch_bk1973g/BJNR200020982.html</a>
				RL (EU) 2019/883  of 17.04.2019	Directive (EU) 2019/883 of the European Parliament and of the Council of 17 April 2019 on port reception facilities for the delivery of waste from ships, amending Directive 2010/65/EU and repealing Directive 2000/59/EG			<a href="https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:32019L0883&amp;from=DE">https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:32019L0883&amp;from=DE</a>
				BremSAEG  of 24.11.2020  last amended 28.03.2023	Bremen Law on Reception Facilities for Ship Generated Waste and Cargo Residues			<a href="https://www.transparenz.bremen.de/metainformationen/bremisches-gesetz-ueber-hafenaufangaeinrichtungen-fuer-die-entladung-von-abfaellen-von-schiffen-bremisches-schiffsabfall-entsorgungsgesetz-bremsaeg-vom-24-november-2020-190880?asId=bremen203_tpgecetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d">https://www.transparenz.bremen.de/metainformationen/bremisches-gesetz-ueber-hafenaufangaeinrichtungen-fuer-die-entladung-von-abfaellen-von-schiffen-bremisches-schiffsabfall-entsorgungsgesetz-bremsaeg-vom-24-november-2020-190880?asId=bremen203_tpgecetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d</a>
				RL 2008/98/EG - Abfallrahmen-Richtlinie  of 19.11.2008 last amended 30.05.2018	Directive 2008/98/EC on waste and repealing certain Directives			<a href="https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:02008L0098-20180705&amp;from=EN">https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:02008L0098-20180705&amp;from=EN</a>
				KrWG  of 24.02.2012  last amended 02.03.2023	Closed Substance Cycle and Waste Management Act - Act to promote recycling and to ensure environmentally compatible waste management			<a href="https://www.gesetze-im-internet.de/krg/BJNR021210012.html">https://www.gesetze-im-internet.de/krg/BJNR021210012.html</a>
				BremAGKRW-/AbfG  of 23.11.1998 last amended 02.03.2023	Bremen's Act for Implementation of the Closed Substance Cycle and Waste Management Act			<a href="https://www.transparenz.bremen.de/sixcms/detail.php?sid=bremen2014_tp.c.68287.de&amp;asId=bremen203_tpgecetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d">https://www.transparenz.bremen.de/sixcms/detail.php?sid=bremen2014_tp.c.68287.de&amp;asId=bremen203_tpgecetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d</a>
				Plans  of 19.02.2018 last amended 24.04.2020	Waste Management Plan for the Public Ports of the Free Hanseatic City of Bremen (2017)			<a href="https://www.transparenz.bremen.de/metainformationen/bekanntmachung-des-abfallbewirtschaftungsplans-fuer-die-oeffentlichen-haefen-der-freien-hansestadt-bremen-stand-2017-153420?asId=bremen203_tpgecetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d">https://www.transparenz.bremen.de/metainformationen/bekanntmachung-des-abfallbewirtschaftungsplans-fuer-die-oeffentlichen-haefen-der-freien-hansestadt-bremen-stand-2017-153420?asId=bremen203_tpgecetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d</a>
				SeeUmwVerhV  of 13.08.2014 last amended 13.12.2019	Maritime Environmental Performance Ordinance - Ordinance on Environmentally Compatible Conduct in Marine Shipping			<a href="https://www.gesetze-im-internet.de/seeumwverhv/BJNR137110014.html">https://www.gesetze-im-internet.de/seeumwverhv/BJNR137110014.html</a>
				CDNI-Law: BinSchAbfÜbkAG  of 27.01.2021	Act on the Convention of 9 September 1996 on the collection, deposit and reception of waste produced during navigation on the Rhine and inland waterways			<a href="https://www.gesetze-im-internet.de/binschabf_bkag/BJNR013000021.html">https://www.gesetze-im-internet.de/binschabf_bkag/BJNR013000021.html</a>
				RL (EU) 2019/904  of 05.06.2019	Directive (EU) 2019/904 of the European Parliament and of the Council of 5 June 2019 on the reduction of the impact of certain plastic products on the environment			<a href="https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:32019L0904&amp;from=DE">https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:32019L0904&amp;from=DE</a>

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<b>B. Port User Aspects (Superstructur)</b>								
<b>B. II. Ocean Carrier/Shipping Lines/Cruise Liner</b>								
B.II.5	Water pollution	Water, Animals, Plants	Shipowners/ charterer: e.g. e.g.: Maersk Line, MSC, CMA CGM, Hapag Lloyd, WWL, Eukor Car Carriers, NYK Line, K-Line, Yang Ming, Glovis, UECC	MARPOL 73/78  of the year 1973 last amended 25.11.2015	International Convention for the Prevention of Marine Pollution from Ships (1973)	No special fee system for reasonable amounts of garbage (no dangerous goods) and sludge	Monitoring by the Harbour Master Office	<a href="https://www.gesetze-im-internet.de/intmeersch_bk1973g/BJNR200020982.html">https://www.gesetze-im-internet.de/intmeersch_bk1973g/BJNR200020982.html</a>  <a href="https://eur-lex.europa.eu/legal-content/DE/TXT/?uri=CELEX%3A32014R1143&amp;qid=1713869924593">https://eur-lex.europa.eu/legal-content/DE/TXT/?uri=CELEX%3A32014R1143&amp;qid=1713869924593</a>  <a href="https://www.deutsche-flagge.de/de/redaktion/dokumente/dokumente-sonstige/g-ballastwasser.pdf">https://www.deutsche-flagge.de/de/redaktion/dokumente/dokumente-sonstige/g-ballastwasser.pdf</a>  <a href="https://www.bsh.de/DE/THEMEN/Schiffahrt/Nautische_Informationen/Weitere_Informationen/Schiffahrtsvorschriften/Downloads_Schiffahrtsvorschriften/Internationale_Schiffahrtsvorschriften/Beilage_2013-12.pdf?__blob=publicationFile&amp;v=1">https://www.bsh.de/DE/THEMEN/Schiffahrt/Nautische_Informationen/Weitere_Informationen/Schiffahrtsvorschriften/Downloads_Schiffahrtsvorschriften/Internationale_Schiffahrtsvorschriften/Beilage_2013-12.pdf?__blob=publicationFile&amp;v=1</a>  <a href="https://www.bgbli.de/xaver/bgbli/start.xav#_bgbli_%2F%2F%5B%40attr_id%3D%27bgbli208s0520.pdf%27%5D__1644341007890">https://www.bgbli.de/xaver/bgbli/start.xav#_bgbli_%2F%2F%5B%40attr_id%3D%27bgbli208s0520.pdf%27%5D__1644341007890</a>  <a href="https://www.gesetze-im-internet.de/afsg/AFSG.pdf">https://www.gesetze-im-internet.de/afsg/AFSG.pdf</a>  <a href="https://www.gesetze-im-internet.de/seuumverhv/BJNR137110014.html">https://www.gesetze-im-internet.de/seuumverhv/BJNR137110014.html</a>
				VO (EU) 1143/2014  of 22.10.2014 last amended 26.10.2016	Regulation (EU) No. 1143/2014 of the European Parliament and of the Council of 22 October 2014 on the prevention and management of the introduction and spread of invasive alien species			
				Convention	International Convention of 13.02.2004 for the Control and Management of Ships' Ballast Water and Sediments			
				Ballastwasser-Gesetz  of 05.02.2013	Law on the International Convention on the Control and Treatment of Ballast Water and Sediment from Ships 2004 (Ballast Water Act)			
				AFSÜbk  of 02.06.2008	AFS - International Convention of 5 October 2001 on the Control of Harmful Anti-fouling Systems on Ships			
				AFS-Gesetz  of 02.06.2008 last amended 31.08.2015	Law on the International Convention of 2001 on the Control of Harmful Anti-fouling Systems on Ships			
				SeeUmwVerhV  of 13.08.2014 last amended 13.12.2019	Maritime Environmental Performance Ordinance - Ordinance on Environmentally Compatible Conduct in Marine Shipping			
B.II.6	Klimaschutz	Klima	Reeder / Charterer: z.B.: Maersk Line, MSC, CMA CGM, Hapag Lloyd, WWL, Eukor Car Carriers, NYK Line, K-Line, Yang Ming, Glovis, UECC	RESOLUTION MEPC.377(80)  (adopted on 7 July 2023)	2023 IMO Strategy on reduction of GHG Emissions from ships		<a href="https://www.imo.org/en/OurWork/Environment/Pages/2023-IMO-Strategy-on-Reduction-of-GHG-Emissions-from-Ships.aspx">https://www.imo.org/en/OurWork/Environment/Pages/2023-IMO-Strategy-on-Reduction-of-GHG-Emissions-from-Ships.aspx</a>	
				FuelEU Maritime Regulation  formal acceptance 25.07.2023 of 13.09.2023	REGULATION (EU) 2023/1805 of the European Parliament and of the Council of 13.09.2023 on the use of renewable and low-carbon fuels in maritime transport		<a href="https://eur-lex.europa.eu/legal-content/DE/TXT/?uri=CELEX:32023R1805">https://eur-lex.europa.eu/legal-content/DE/TXT/?uri=CELEX:32023R1805</a>	

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<b>B. Port User Aspects (Superstructur)</b>								
<b>B. III. Shipyards/Dockyards</b>								
B.III.1	Noise emissions	Neighboring population	e.g. Lloyd Werft, MWB, Bredo, GERMAN DRY DOCKS	BlmSchG of 17.05.2013 last amended 26.07.2023	Federal Immission Control Act - Act on the Prevention of Harmful Effects on the Environment caused by Air Pollution, Noise, Vibrations and Similar Phenomena		Monitoring by GAA	<a href="https://www.gesetze-im-internet.de/bimschg/BJNR007210974.html">https://www.gesetze-im-internet.de/bimschg/BJNR007210974.html</a>
				BremImSchG of 14.05.2019	Bremen Act on Protection against Harmful Impact on the Environment and Incidents (Bremen Immission Control Act - BremImSchG)			<a href="https://www.transparenz.bremen.de/metainformationen/bremisches-gesetz-zum-schutz-vor-schaedlichen-umwelteinwirkungen-und-stoerfaellen-bremisches-immissionschutzgesetz-bremimschg-vom-14-mai-2019-130986?template=20_gp_ifg_meta_detail_d">https://www.transparenz.bremen.de/metainformationen/bremisches-gesetz-zum-schutz-vor-schaedlichen-umwelteinwirkungen-und-stoerfaellen-bremisches-immissionschutzgesetz-bremimschg-vom-14-mai-2019-130986?template=20_gp_ifg_meta_detail_d</a>
				Permits	Approval of installations			
				Plans	Development plans			
B.III.2	Contamination of air, water and soil especially by dangerous substances	Air/water, soil, workers, neighboring population	e.g. Lloyd Werft, MWB, Bredo, GERMAN DRY DOCKS	BBodSchG of 17.03.1998 last amended 25.02.2021	Federal Soil Protection Act - Act for the Protection of Harmful Changes to the Soil and for the Remediation of Contaminated Sites	Prevention of water and air contamination, Oil water separator required, cleaning of waste water	Monitoring by environmental agency (SUKW)	<a href="https://www.gesetze-im-internet.de/bbodschg/BJNR050210998.html">https://www.gesetze-im-internet.de/bbodschg/BJNR050210998.html</a>
				BremBodSchG of 27.08.2002 last amended 20.10.2020	Bremen Soil Protection Act - Bremen's Act on the Protection of Soil			<a href="https://www.transparenz.bremen.de/metainformationen/bremisches-gesetz-zum-schutz-des-bodens-bremisches-bodenschutzgesetz-brembodschg-vom-27-august-2002-157828?asf=bremen203_tpgesetz.c.55340.de&amp;tem">https://www.transparenz.bremen.de/metainformationen/bremisches-gesetz-zum-schutz-des-bodens-bremisches-bodenschutzgesetz-brembodschg-vom-27-august-2002-157828?asf=bremen203_tpgesetz.c.55340.de&amp;tem</a>
				BBodSchV of 12.07.1999 last amended 09.07.2021	Federal Soil Protection Act - Act for the Protection of Harmful Changes to the Soil and for the Remediation of Contaminated Sites			<a href="https://www.gesetze-im-internet.de/bbodschv_2023/">https://www.gesetze-im-internet.de/bbodschv_2023/</a>
				AwSV of 18.04.2017 last amended 19.06.2020	Ordinance on installations for handling of substances hazardous to waters			<a href="https://www.gesetze-im-internet.de/awsv/BJNR090500017.html">https://www.gesetze-im-internet.de/awsv/BJNR090500017.html</a>
				ArbSchG of 07.08.1996 last amended 31.05.2023	Labour Protection Act - Act on the Implementation of Measures of Occupational Health and Safety to Encourage Improvements in the Safety and Health Protection of Workers at Work			<a href="https://www.gesetze-im-internet.de/arbschg/BJNR124610996.html">https://www.gesetze-im-internet.de/arbschg/BJNR124610996.html</a>
				BlmSchG of 17.05.2013 last amended 26.07.2023	Federal Immission Control Act - Act on the Prevention of Harmful Effects on the Environment caused by Air Pollution, Noise, Vibrations and Similar Phenomena			<a href="https://www.gesetze-im-internet.de/bimschg/BJNR007210974.html">https://www.gesetze-im-internet.de/bimschg/BJNR007210974.html</a>
				Permits	Approval of installations			

Register of significant environmental aspects								Twin-Ports of Bremen/Bremerhaven
Ref. No.	Environmental impact by port activities	Exposure path-way / Impact on	Responsible organisation	Applicable legislation / strategies / programmes (green: international legislation, red: European legislation, blue: Federal legislation, black: State legislation)	Legal and other requirements	Control measures	URL	
<b>B. Port User Aspects (Superstructur)</b>								
<b>B. III. Shipyards/Dockyards</b>								
B.III.3	Risk of explosion and fire	Air, environment, workers, neighboring population	e.g. Lloyd Werft, MWB, Bredo, GERMAN DRY DOCKS	ArbSchG of 07.08.1996 last amended 31.05.2023	Labour Protection Act - Act on the Implementation of Measures of Occupational Health and Safety to Encourage Improvements in the Safety and Health Protection of Workers at Work	Emergency plans	Local Fire brigades	<a href="https://www.gesetze-im-internet.de/arbschg/BJNR124610996.html">https://www.gesetze-im-internet.de/arbschg/BJNR124610996.html</a>
				AwSV of 18.04.2017 last amended 19.06.2020	Ordinance on installations for handling of substances hazardous to waters			<a href="https://www.gesetze-im-internet.de/awsv/BJNR090500017.html">https://www.gesetze-im-internet.de/awsv/BJNR090500017.html</a>
				SprengG of 10.09.2002 last amended 02.03.2023	Federal Explosives Act - Act on Explosive Substances			<a href="http://www.gesetze-im-internet.de/sprengg_1976/BJNR027370976.html">http://www.gesetze-im-internet.de/sprengg_1976/BJNR027370976.html</a>
				Permits	Approval of installations			
B.III.4	Dockyard waste water	Water	e.g. Lloyd Werft, MWB, Bredo, GERMAN DRY DOCKS	Conventions	International Convention of 13.02.2004 for the Control and Management of Ships' Ballast Water and Sediments	Technical cleaning	Monitoring by environmental Agency (SKUMS)	<a href="https://www.deutsche-flagge.de/de/redaktion/dokumente/dokumente-sonstige/g-ballastwasser.pdf">https://www.deutsche-flagge.de/de/redaktion/dokumente/dokumente-sonstige/g-ballastwasser.pdf</a>
				Ballastwasser-Law of 05.02.2013	Law on the International Convention on the Control and Treatment of Ballast Water and Sediment from Ships 2004 (Ballast Water Act)			<a href="https://www.deutsche-flagge.de/de/redaktion/dokumente/dokumente-sonstige/ballastwasser-gesetz.pdf/view">https://www.deutsche-flagge.de/de/redaktion/dokumente/dokumente-sonstige/ballastwasser-gesetz.pdf/view</a>
				VO (EU) 1143/2014 of 22.10.2014 last amended 26.10.2016	Regulation (EU) No. 1143/2014 of the European Parliament and of the Council of 22 October 2014 on the prevention and management of the introduction and spread of invasive alien species			<a href="https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:02014R1143-20191214&amp;from=EN">https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:02014R1143-20191214&amp;from=EN</a>

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<b>B. Port User Aspects (Superstructur)</b>								
<b>B. III. Shipyards/Dockyards</b>								
B.III.4	Dockyard waste water	Water	e.g. Lloyd Werft, MWB, Bredo, GERMAN DRY DOCKS	AFSUbk of 02.06.2008	AFS - International Convention of 5 October 2001 on the Control of Harmful Anti-fouling Systems on Ships	Technical cleaning	Monitoring by environmental Agency (SKUMS)	<a href="https://www.bgbj.de/xaver/bgbj/start.xav#_bgbj_%2F%2F%5B%40attr_id%3D%27bgbj208s0520.pdf%27%5D_1644341007890">https://www.bgbj.de/xaver/bgbj/start.xav#_bgbj_%2F%2F%5B%40attr_id%3D%27bgbj208s0520.pdf%27%5D_1644341007890</a>
				AFS-Law of 02.06.2008 last amended 31.08.2015	Law on the International Convention of 2001 on the Control of Harmful Anti-fouling Systems on Ships			<a href="https://www.gesetze-im-internet.de/afsg/AFSG.pdf">https://www.gesetze-im-internet.de/afsg/AFSG.pdf</a>
				RL 2000/60/EG - WRRL of 23.10.2000 last amended 30.10.2014	Directive 2000/60/EC establishing a framework for Community action in the field of water policy - Water Framework Directive (WFD)			<a href="https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:02000L0060-20141120&amp;from=EN">https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:02000L0060-20141120&amp;from=EN</a>
				WHG of 31.07.2009 last amended 22.12.2023	Federal Water Act - Act on Managing Water Resources			<a href="http://www.gesetze-im-internet.de/whg_2009/BJNR258510009.html">http://www.gesetze-im-internet.de/whg_2009/BJNR258510009.html</a>
				BremWG of 12.04.2011 last amended 24.11.2020	Water Act of Bremen			<a href="https://www.transparenz.bremen.de/metainformationen/bremisches-wassergesetz-bremwg-vom-12-april-2011-1600487!as!bremen203_tpgesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d">https://www.transparenz.bremen.de/metainformationen/bremisches-wassergesetz-bremwg-vom-12-april-2011-1600487!as!bremen203_tpgesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d</a>
				BremAbwAG of 01.05.1989 last amended 24.01.2012	Wastewater Charges Act of Bremen			<a href="https://www.transparenz.bremen.de/metainformationen/bremisches-abwasserabgabengesetz-bremabwag-in-der-fassung-der-bekanntmachung-vom-1-mai-1989-15781!as!bremen203_tpgesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d">https://www.transparenz.bremen.de/metainformationen/bremisches-abwasserabgabengesetz-bremabwag-in-der-fassung-der-bekanntmachung-vom-1-mai-1989-15781!as!bremen203_tpgesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d</a>

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<b>B. Port User Aspects (Superstructur)</b>								
<b>B. III. Shipyards/Dockyards</b>								
B.III.5	Dockyard waste	Soil, water	e.g. Lloyd Werft, MWB, Bredo, GERMAN DRY DOCKS	RL 2008/98/EG - Abfallrahmen-Richtlinie  of 19.11.2008 last amended 12.07.2023	Directive 2008/98/EC on waste and repealing certain Directives	Reduction of waste	Monitoring by environmental agency (SUKW)	<a href="https://eur-lex.europa.eu/legal-content/DE/TXT/?uri=CELEX%3A02008L0098-20240218&amp;qid=1713871578485">https://eur-lex.europa.eu/legal-content/DE/TXT/?uri=CELEX%3A02008L0098-20240218&amp;qid=1713871578485</a>
				KrWG  of 24.02.2012  last amended 02.03.2023	Closed Substance Cycle and Waste Management Act - Act to promote recycling and to ensure environmentally compatible waste management			<a href="https://www.gesetze-im-internet.de/krgw/BJNR021210012.html">https://www.gesetze-im-internet.de/krgw/BJNR021210012.html</a>
				BremAGKrW-/AbfG  of 23.11.1998 last amended 13.03.2024	Bremen's Act for Implementation of the Closed Substance Cycle and Waste Management Act			<a href="https://www.transparenz.bremen.de/metainformationen/bremisches-ausfuehrungsgesetz-zum-kreislaufwirtschafts-und-abfallgesetz-vom-2-februar-2010-224862?asI=bremen203_tpgesetz.c.55340.de&amp;templatename=20_gp_ifg_meta_detail_d">https://www.transparenz.bremen.de/metainformationen/bremisches-ausfuehrungsgesetz-zum-kreislaufwirtschafts-und-abfallgesetz-vom-2-februar-2010-224862?asI=bremen203_tpgesetz.c.55340.de&amp;templatename=20_gp_ifg_meta_detail_d</a>
				RL 2000/60/EG - WRRL  of 23.10.2000 last amended 30.10.2014	Directive 2000/60/EC establishing a framework for Community action in the field of water policy - Water Framework Directive (WFD)			<a href="https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:02000L0060-20141120&amp;from=EN">https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:02000L0060-20141120&amp;from=EN</a>
				WHG  of 31.07.2009 last amended 22.12.2023	Federal Water Act - Act on Managing Water Resources			<a href="http://www.gesetze-im-internet.de/whg_2009/BJNR258510009.html">http://www.gesetze-im-internet.de/whg_2009/BJNR258510009.html</a>
				BremWG  of 12.04.2011 last amended 24.11.2020	Water Act of Bremen			<a href="https://www.transparenz.bremen.de/metainformationen/bremisches-wassergesetz-bremwg-vom-12-april-2011-160048?asI=bremen203_tpgesetz.c.55340.de&amp;templatename=20_gp_ifg_meta_detail_d">https://www.transparenz.bremen.de/metainformationen/bremisches-wassergesetz-bremwg-vom-12-april-2011-160048?asI=bremen203_tpgesetz.c.55340.de&amp;templatename=20_gp_ifg_meta_detail_d</a>
				AltöIV  of 16.04.2002 last amended 24.02.2012	Bye-laws concerning waste oil			<a href="http://www.gesetze-im-internet.de/alt_iv/BJNR023350987.html">http://www.gesetze-im-internet.de/alt_iv/BJNR023350987.html</a>

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<b>B. Port User Aspects (Superstructur)</b>								
<b>B. III. Shipyards/Dockyards</b>								
B.III.6	Climate protection / energy efficiency	Climate	z.B. EUROGATE (CTB), MSC Gate, NTB, BLG Logistics Group, Weserport	<p><b>European Climate Law</b> of 30 June 2021</p> <p><b>Federal Climate Change Act (KSG)</b> of 12.12.2019 last amended 18.08.2021</p> <p><b>BremKEG</b> of 24.03.2015 last amended 28.03.2023</p> <p><b>Energy Efficiency Act - EnEfG</b> of 13.11.2023</p> <p><b>Building Energy Act - GEG</b> of 08.08.2020 last amended 16.10.2023 in force 01.10.2024</p> <p><b>EDL-G</b> of 04.11.2010 last amended 13.11.2023</p> <p><b>EEG 2023</b> of 21.07.2014 last amended 05.02.2024</p> <p>Continuation of climate protection strategy of the Federal Land of Bremen</p>	<p><b>REGULATION (EU) 2021/1119 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL establishing the framework for achieving climate neutrality</b></p> <p><b>Act on the adoption of a Federal Climate Change Act and to amend other statutory provisions</b></p> <p>Bremen Climate Protection and Energy Act</p> <p><b>Act to increase energy efficiency in Germany</b></p> <p><b>Act to save energy and promote the use of renewable energy for heating/cooling requirements in buildings</b></p> <p><b>Act on Energy Services and other Energy Efficiency Measures</b></p> <p><b>Renewable Energy Sources Act - Act for the Expansion of Renewable Energy Sources</b></p> <p>Continuation of climate protection strategy of the Federal Land of Bremen</p>			<a href="https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:32021R1119&amp;from=DE">https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:32021R1119&amp;from=DE</a> <a href="http://www.gesetze-im-internet.de/ksg/BJNR251310019.html">http://www.gesetze-im-internet.de/ksg/BJNR251310019.html</a> <a href="https://www.transparenz.bremen.de/metainformationen/bremisches-klimaschutz-und-energiegesetz-bremkeg-vom-24-maerz-2015-19093?ast=bremen203_tpgeetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d">https://www.transparenz.bremen.de/metainformationen/bremisches-klimaschutz-und-energiegesetz-bremkeg-vom-24-maerz-2015-19093?ast=bremen203_tpgeetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d</a> <a href="https://www.gesetze-im-internet.de/enefg/index.html">https://www.gesetze-im-internet.de/enefg/index.html</a> <a href="https://www.gesetze-im-internet.de/geg/">https://www.gesetze-im-internet.de/geg/</a> <a href="https://www.gesetze-im-internet.de/edl-g/BJNR148310010.html">https://www.gesetze-im-internet.de/edl-g/BJNR148310010.html</a> <a href="https://www.gesetze-im-internet.de/eeeg_2014/BJNR106610014.html">https://www.gesetze-im-internet.de/eeeg_2014/BJNR106610014.html</a> <a href="https://www.bremerhaven.de/de/verwaltung-politik-sicherheit/klimastadt/klimaschutz-klimaneutralitaet.132366.html">https://www.bremerhaven.de/de/verwaltung-politik-sicherheit/klimastadt/klimaschutz-klimaneutralitaet.132366.html</a>

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<b>B. Port User Aspects (Superstructur)</b>							
<b>B. IV. Storage and distribution (logistics) e.g.: storage of oils, fuels, metals, wood, coal, pet food, cereals and other bulk cargo</b>							
B.IV.1	Noise emissions particularly • Cargo traffic • Company operation	Air, neighboring population  e.g. BLG Logistics (PKW, H&H) BLG Coldstore, Heuer, HGM, Diersch & Schröder, Hellmann, Glomb, Oiltanking (Tanklager BHV), Großmarkt		BlmSchG  of 17.05.2013 last amended 26.07.2023	Federal Immission Control Act - Act on the Prevention of Harmful Effects on the Environment caused by Air Pollution, Noise, Vibrations and Similar Phenomena	Containment and reduction of industrial port noise	Monitoring by GAA  <a href="https://www.gesetze-im-internet.de/bimschg/BJNR007210974.html">https://www.gesetze-im-internet.de/bimschg/BJNR007210974.html</a>
				BremImSchG  of 14.05.2019	Bremen Act on Protection against Harmful Impact on the Environment and Incidents (Bremen Immission Control Act - BremImSchG)		
				Permits	Approval of installations		
				Plans	Development plans		
B.IV.2	Contamination of air, water and soil especially by dangerous goods	Air, water, soil, workers, neighboring population  e.g. BLG Logistics (PKW, H&H) BLG Coldstore, Heuer, HGM, Diersch & Schröder, Hellmann, Glomb, Oiltanking (Tanklager BHV), Großmarkt		RL 2000/60/EG - WRRL  of 23.10.2000 last amended 30.10.2014	Directive 2000/60/EC establishing a framework for Community action in the field of water policy - Water Framework Directive (WFD)	Prevention of soil, water and air contamination, Emergency plans	Monitoring by environmental agency (SUKW)  <a href="https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:02000L0060-20141120&amp;from=EN">https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:02000L0060-20141120&amp;from=EN</a>
				WHG  of 31.07.2009 last amended 22.12.2023	Federal Water Act - Act on Managing Water Resources		
				BremWG  of 12.04.2011 last amended 24.11.2020	Water Act of Bremen		
				AwSV  of 18.04.2017 last amended 19.06.2020	Ordinance on installations for handling of substances hazardous to waters		
				BBodSchG  of 17.03.1998 last amended 25.02.2021	Federal Soil Protection Act - Act for the Protection of Harmful Changes to the Soil and for the Remediation of Contaminated Sites		
				BremBodSchG  of 27.08.2002 last amended 20.10.2020	Bremen Soil Protection Act - Bremen's Act on the Protection of Soil		
				BBodSchV  of 12.07.1999 last amended 09.07.2021	Federal Soil Protection Act - Act for the Protection of Harmful Changes to the Soil and for the Remediation of Contaminated Sites		
				Permits	Approval of installations		

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<b>B. Port User Aspects (Superstructur)</b>								
<b>B. IV. Storage and distribution (logistics) e.g.: storage of oils, fuels, metals, wood, coal, pet food, cereals and other bulk cargo</b>								
B.IV.3	Bulk product dust	Air/area, smell nuisance, neighboring population	e.g. BLG Logistics (PKW, H&H) BLG Coldstore, Heuer, HGM, Diersch & Schröder, Hellmann, Glomb, Oiltanking (Tanklager BHV), Großmarkt	ArbSchG of 07.08.1996 last amended 31.05.2023	Labour Protection Act - Act on the Implementation of Measures of Occupational Health and Safety to Encourage Improvements in the Safety and Health Protection of Workers at Work	Reduction of dust and smell emission	Monitoring by GAA	<a href="https://www.gesetze-im-internet.de/arbschg/BJNR124610996.html">https://www.gesetze-im-internet.de/arbschg/BJNR124610996.html</a>
				BlmSchG of 17.05.2013 last amended 26.07.2023	Federal Immission Control Act - Act on the Prevention of Harmful Effects on the Environment caused by Air Pollution, Noise, Vibrations and Similar Phenomena			<a href="https://www.gesetze-im-internet.de/bimschg/BJNR007210974.html">https://www.gesetze-im-internet.de/bimschg/BJNR007210974.html</a>
				Permits	Approval of installations			

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Ref. No.	Environmental impact by port activities	Exposure path-way / Impact on	Responsible organisation	Applicable legislation / strategies / programmes (green: international legislation, red: European legislation, blue: Federal legislation, black: State legislation)	Legal and other requirements	Control measures	URL
<b>B. Port User Aspects (Superstructur)</b>							
<b>B. IV. Storage and distribution (logistics) e.g.: storage of oils, fuels, metals, wood, coal, pet food, cereals and other bulk cargo</b>							
B.IV.4	Waste	Soil, water	e.g. BLG Logistics (PKW, H&H) BLG Coldstore, Heuer, HGM, Diersch & Schröder, Hellmann, Glomb, Oiltanking (Tanklager BHV), Großmarkt	RL 2008/98/EG - Abfallrahmen-Richtlinie of 19.11.2008 last amended 30.05.2018	Directive 2008/98/EC on waste and repealing certain Directives	Reduction of waste, safe waste removal	Monitoring by environmental agency (SUKW)  <a href="https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:02008L0098-20180705&amp;from=EN">https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:02008L0098-20180705&amp;from=EN</a>
				KrWG of 24.02.2012 last amended 02.03.2023	Closed Substance Cycle and Waste Management Act - Act to promote recycling and to ensure environmentally compatible		<a href="https://www.gesetze-im-internet.de/krgw/BJNR021210012.html">https://www.gesetze-im-internet.de/krgw/BJNR021210012.html</a>
				BremAGKrW-/AbfG of 02.02.2010 last amended 13.03.2024	Bremen's Act for Implementation of the Closed Substance Cycle and Waste Management Act		<a href="https://www.transparenz.bremen.de/sixcms/detail.php?sid=bremen2014_tp_c.68287.de&amp;sl=bremen203_tpgezeit.c.55340.de&amp;template=20_gp_ifg_meta_detail_d">https://www.transparenz.bremen.de/sixcms/detail.php?sid=bremen2014_tp_c.68287.de&amp;sl=bremen203_tpgezeit.c.55340.de&amp;template=20_gp_ifg_meta_detail_d</a>
				VO (EG) 1013/2006 - Abfall-Verbringungsverordnung of 14.06.2006	Regulation (EG) No. 1013/2006 of the European Parliament and of the Council of 14 June 2006 on shipments of waste		<a href="https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:02006R1013-20210111&amp;from=DE">https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:02006R1013-20210111&amp;from=DE</a>
				Plans	Waste Management Plan for the Public Ports of the Free Hanseatic City of Bremen		<a href="https://www.transparenz.bremen.de/metainformationen/bekanntmachung-des-abfallbewirtschaftungsplans-fuer-die-oeffentlichen-haefen-der-freien-hansestadt-bremen-stand-2017-153420?asf=bremen203_tpgezeit.c.55340.de&amp;template=20_gp_ifg_meta_detail_d">https://www.transparenz.bremen.de/metainformationen/bekanntmachung-des-abfallbewirtschaftungsplans-fuer-die-oeffentlichen-haefen-der-freien-hansestadt-bremen-stand-2017-153420?asf=bremen203_tpgezeit.c.55340.de&amp;template=20_gp_ifg_meta_detail_d</a>
				AbfVerbrG of 19.07.2007 last amended 02.03.2023	Waste Shipment Act - Act on the Implementation of Regulation (EC) No. 1013/2006 on shipments of waste and the Basel Convention of 22 March 1989 on the Control of Transboundary Movements of Hazardous Waste and their Disposal		<a href="https://www.gesetze-im-internet.de/abfverbrg_2007/BJNR146210007.html">https://www.gesetze-im-internet.de/abfverbrg_2007/BJNR146210007.html</a>
				LAGA M25 Mai 2017	Guide to implementation of Regulation (EG) No. 1013/2006 of the European Parliament and of the Council of 14 June 2006 on shipments of waste and the Waste Shipment Act of 19 July 2007		<a href="https://www.laga-online.de/Publikationen-50-Mitteilungen.html">https://www.laga-online.de/Publikationen-50-Mitteilungen.html</a>
				VerpackG of 17.07.2017 last amended 25.10.2023	Packaging Act - Act on the Marketing, Recovery and Recycling of Packaging		<a href="https://www.gesetze-im-internet.de/verpackg/BJNR223410017.html">https://www.gesetze-im-internet.de/verpackg/BJNR223410017.html</a>
				AltöIV of 16.04.2002 last amended 05.10.2020	Bye-laws concerning waste oil		<a href="http://www.gesetze-im-internet.de/alt_iv/BJNR023350987.html">http://www.gesetze-im-internet.de/alt_iv/BJNR023350987.html</a>
				Permits	Approval of installations		

Register of significant environmental aspects								Twin-Ports of Bremen/Bremerhaven
Ref. No.	Environmental impact by port activities	Exposure path-way / Impact on	Responsible organisation	Applicable legislation / strategies / programmes (green: international legislation, red: European legislation, blue: Federal legislation, black: State legislation)	Legal and other requirements	Control measures	URL	
<b>B. Port User Aspects (Superstructur)</b>								
<b>B. IV. Storage and distribution (logistics) e.g.: storage of oils, fuels, metals, wood, coal, pet food, cereals and other bulk cargo</b>								
B.IV.5	Risk of explosion and fire	Air/ environment, workers, neighboring population	e.g. BLG Logistics (PKW, H&H) BLG Coldstore, Heuer, HGM, Diersch & Schröder, Hellmann, Glomb, Oiltanking (Tanklager BHV), Großmarkt	ArbSchG of 07.08.1996 last amended 31.05.2023	Labour Protection Act - Act on the Implementation of Measures of Occupational Health and Safety to Encourage Improvements in the Safety and Health Protection of Workers at Work	Emergency plans	Local fire brigade	<a href="https://www.gesetze-im-internet.de/arbschg/BJNR124610996.html">https://www.gesetze-im-internet.de/arbschg/BJNR124610996.html</a>
				AwSV of 18.04.2017 last amended 19.06.2020	Ordinance on installations for handling of substances hazardous to waters			<a href="https://www.gesetze-im-internet.de/awsv/BJNR090500017.html">https://www.gesetze-im-internet.de/awsv/BJNR090500017.html</a>
				BetrSichV of 03.02.2015 last amended 27.07.2021	Industrial Safety Ordinance - Ordinance on Safety and Health Production in connection with the Use of Work Equipment			<a href="https://www.gesetze-im-internet.de/bertsichv_2015/BJNR004910015.html">https://www.gesetze-im-internet.de/bertsichv_2015/BJNR004910015.html</a>
				GefStoffV of 26.11.2010 last amended 21.07.2023	Hazardous Substances Ordinance - Ordinance on Protection from Hazardous Substances			<a href="https://www.gesetze-im-internet.de/gefstoffv_2010/BJNR164400010.html">https://www.gesetze-im-internet.de/gefstoffv_2010/BJNR164400010.html</a>
				SprengG of 10.09.2002 last amended 02.03.2023	Federal Explosives Act - Act on Explosive Substances			<a href="http://www.gesetze-im-internet.de/sprengg_1976/BJNR027370976.html">http://www.gesetze-im-internet.de/sprengg_1976/BJNR027370976.html</a>
				Permits	Genehmigungen von Anlagen			

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<b>B. Port User Aspects (Superstructur)</b>								
<b>B. IV. Storage and distribution (logistics) e.g.: storage of oils, fuels, metals, wood, coal, pet food, cereals and other bulk cargo</b>								
B.IV.6	Operation of port railway facilities	Air, soil, water, noise	Railway operation companies, transport companies	<p><b>RL 2000/60/EG - WRRL</b> of 23.10.2000 last amended 30.10.2014</p> <p><b>WHG</b> of 31.07.2009 last amended 22.12.2023</p> <p><b>BremWG</b> of 12.04.2011 last amended 24.11.2020</p> <p><b>BBodSchG</b> of 17.03.1998 last amended 25.02.2021</p> <p><b>BremBodSchG</b> of 27.08.2002 last amended 20.10.2020</p> <p><b>BBodSchV</b> of 12.07.1999 last amended 09.07.2021</p> <p><b>RL 2008/98/EG - Abfallrahmen-Richtlinie</b> of 19.11.2008 last amended 30.05.2018</p> <p><b>KrWG</b> of 24.02.2012 last amended 02.03.2023</p> <p><b>BremAGKrW-/AbfG</b> of 02.02.2010 last amended 13.03.2024</p>	<p><b>Directive 2000/60/EC establishing a framework for Community action in the field of water policy - Water Framework Directive (WFD)</b></p> <p><b>Federal Water Act - Act on Managing Water Resources</b></p> <p><b>Water Act of Bremen</b></p> <p><b>Federal Soil Protection Act - Act for the Protection of Harmful Changes to the Soil and for the Remediation of Contaminated Sites</b></p> <p><b>Bremen Soil Protection Act - Bremen's Act on the Protection of Soil</b></p> <p><b>Federal Soil Protection Act - Act for the Protection of Harmful Changes to the Soil and for the Remediation of Contaminated Sites</b></p> <p><b>Directive 2008/98/EC on waste and repealing certain Directives</b></p> <p><b>Closed Substance Cycle and Waste Management Act - Act to promote recycling and to ensure environmentally compatible waste management</b></p> <p><b>Bremen's Act for Implementation of the Closed Substance Cycle and Waste Management Act</b></p>	<p>Prevention, mitigation &amp; compensation of negative effects on the environment</p>	<p>Monitoring by environmental agency (SUKW) and GAA</p>	<p><a href="https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:02000L0060-20141120&amp;from=EN">https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:02000L0060-20141120&amp;from=EN</a></p> <p><a href="http://www.gesetze-im-internet.de/whg_2009/BJNR258510009.html">http://www.gesetze-im-internet.de/whg_2009/BJNR258510009.html</a></p> <p><a href="https://www.transparenz.bremen.de/metainformationen/bremisches-wassergesetz-bremwg-vom-12-april-2011-160048?asI=bremen203_tpgesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d">https://www.transparenz.bremen.de/metainformationen/bremisches-wassergesetz-bremwg-vom-12-april-2011-160048?asI=bremen203_tpgesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d</a></p> <p><a href="https://www.gesetze-im-internet.de/bbodschg/BJNR050210998.html">https://www.gesetze-im-internet.de/bbodschg/BJNR050210998.html</a></p> <p><a href="https://www.transparenz.bremen.de/metainformationen/bremisches-schutz-des-bodens-bremisches-bodenschutzgesetz-brembodschg-vom-27-august-2002-157828?asI=bremen203_tpgesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d">https://www.transparenz.bremen.de/metainformationen/bremisches-schutz-des-bodens-bremisches-bodenschutzgesetz-brembodschg-vom-27-august-2002-157828?asI=bremen203_tpgesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d</a></p> <p><a href="https://www.gesetze-im-internet.de/bbodschtv_2023/">https://www.gesetze-im-internet.de/bbodschtv_2023/</a></p> <p><a href="https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:02008L0098-20180705&amp;from=EN">https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:02008L0098-20180705&amp;from=EN</a></p> <p><a href="https://www.gesetze-im-internet.de/krgw/BJNR021210012.html">https://www.gesetze-im-internet.de/krgw/BJNR021210012.html</a></p> <p><a href="https://www.transparenz.bremen.de/metainformationen/bremisches-ausfuehrungsgesetz-zum-kreislaufwirtschafts-und-abfallgesetz-vom-2-februar-2010-224862?asI=bremen203_tpgesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d">https://www.transparenz.bremen.de/metainformationen/bremisches-ausfuehrungsgesetz-zum-kreislaufwirtschafts-und-abfallgesetz-vom-2-februar-2010-224862?asI=bremen203_tpgesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d</a></p>

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<b>B. Port User Aspects (Superstructur)</b>								
<b>B. IV. Storage and distribution (logistics) e.g.: storage of oils, fuels, metals, wood, coal, pet food, cereals and other bulk cargo</b>								
B.IV.6	Operation of port railway facilities	Air, soil, water, noise	Railway operation companies, transport companies	BlmSchG  of 17.05.2013 last amended 26.07.2023	Federal Immission Control Act - Act on the Prevention of Harmful Effects on the Environment caused by Air Pollution, Noise, Vibrations and Similar Phenomena	Prevention, mitigation & compensation of negative effects on the environment	Monitoring by environmental agency (SUKW) and GAA	<a href="https://www.gesetze-im-internet.de/bimschgbjnr007210974.html">https://www.gesetze-im-internet.de/bimschgbjnr007210974.html</a>
				16. BlmSchV  of 12.06.1990 last amended 04.11.2020	Traffic Noise Protection Ordinance - Sixteenth Ordinance for Implementation of the Federal Immission Control Act			<a href="https://www.gesetze-im-internet.de/bimschv_16/bjnr010360990.html">https://www.gesetze-im-internet.de/bimschv_16/bjnr010360990.html</a>
				AltöLV  of 16.04.2002 last amended 05.10.2020	Bye-laws concerning waste oil			<a href="http://www.gesetze-im-internet.de/alt_lv/bjnr023350987.html">http://www.gesetze-im-internet.de/alt_lv/bjnr023350987.html</a>
				AltHolzV  of 15.08.2002 last amended 19.06.2020	Ordinance on the management of waste wood			<a href="http://www.gesetze-im-internet.de/altholzv/bjnr330210002.html">http://www.gesetze-im-internet.de/altholzv/bjnr330210002.html</a>
				BremGGBefVO  of 14.06.2016 last amended 20.10.2020	Bremen bye-law on the allocation of responsibilities for implementation of statutory regulations pursuant to the Act on the Transport of Dangerous Goods and the Act on the Convention for Safe Containers			<a href="https://www.transparenz.bremen.de/metainformationen/bremische-verordnung-ueber-zustaendigkeiten-fuer-die-ausfuehrung-von-rechtsvorschriften-nach-dem-gesetz-uber-die-befoerderung-gefaehrlicher-gueter-und-dem-gesetz-zu-dem-uebereinkommen ueber-sichere-container-vom-14-juni-2016-157860?asf=bremen203_tpgesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d">https://www.transparenz.bremen.de/metainformationen/bremische-verordnung-ueber-zustaendigkeiten-fuer-die-ausfuehrung-von-rechtsvorschriften-nach-dem-gesetz-uber-die-befoerderung-gefaehrlicher-gueter-und-dem-gesetz-zu-dem-uebereinkommen ueber-sichere-container-vom-14-juni-2016-157860?asf=bremen203_tpgesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d</a>
				GGBefG  of 07.07.2009 last amended 02.03.2023	Law on the Transport of Dangerous Goods			<a href="https://www.gesetze-im-internet.de/gefahrgut/gbjnr021210975.html">https://www.gesetze-im-internet.de/gefahrgut/gbjnr021210975.html</a>
				BrHafenO  of 24.04.2001 last amended 23.11.2022	Bremen Port Regulations			<a href="https://www.transparenz.bremen.de/metainformationen/bremische-hafenordnung-vom-24-april-2001-186323?asf=bremen203_tpgesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d">https://www.transparenz.bremen.de/metainformationen/bremische-hafenordnung-vom-24-april-2001-186323?asf=bremen203_tpgesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d</a>

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<b>B. Port User Aspects (Superstructur)</b>								
<b>B. IV. Storage and distribution (logistics) e.g.: storage of oils, fuels, metals, wood, coal, pet food, cereals and other bulk cargo</b>								
B.IV.7	Climate protection / energy efficiency	Climate	z.B. EUROGATE (CTB), MSC Gate, NTB, BLG Logistics Group, Weserport	European Climate Law of 30 June 2021	REGULATION (EU) 2021/1119 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL establishing the framework for achieving climate neutrality			<a href="https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:32021R1119&amp;from=DE">https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:32021R1119&amp;from=DE</a>
				Federal Climate Change Act (KSG) of 12.12.2019 last amended 18.08.2021	Act on the adoption of a Federal Climate Change Act and to amend other statutory provisions			<a href="http://www.gesetze-im-internet.de/ksg/BJNR251310019.html">http://www.gesetze-im-internet.de/ksg/BJNR251310019.html</a>
				BremKEG of 24.03.2015 last amended 28.03.2023	Bremen Climate Protection and Energy Act			<a href="https://www.transparenz.bremen.de/metainformationen/bremisches-klimaschutz-und-energiegesetz-bremkeg-vom-24-maerz-2015-190933?asf=bremen203_tpgesetz.c.55340.de&amp;template=20_gp_fg_meta_detail_d">https://www.transparenz.bremen.de/metainformationen/bremisches-klimaschutz-und-energiegesetz-bremkeg-vom-24-maerz-2015-190933?asf=bremen203_tpgesetz.c.55340.de&amp;template=20_gp_fg_meta_detail_d</a>
				Energy Efficiency Act - EnEfG of 13.11.2023	Act to increase energy efficiency in Germany			<a href="https://www.gesetze-im-internet.de/eneff/index.html">https://www.gesetze-im-internet.de/eneff/index.html</a>
				Building Energy Act - GEG of 08.08.2020 last amended 16.10.2023 in force 01.10.2024	Act to save energy and promote the use of renewable energy for heating/cooling requirements in buildings			<a href="https://www.gesetze-im-internet.de/geg/">https://www.gesetze-im-internet.de/geg/</a>
				EDL-G of 04.11.2010 last amended 13.11.2023	Act on Energy Services and other Energy Efficiency Measures			<a href="https://www.gesetze-im-internet.de/edl-g/BJNR148310010.html">https://www.gesetze-im-internet.de/edl-g/BJNR148310010.html</a>
				EEG 2023 of 21.07.2014 last amended 05.02.2024	Renewable Energy Sources Act - Act for the Expansion of Renewable Energy Sources			<a href="https://www.gesetze-im-internet.de/eeg_2014/BJNR106610014.html">https://www.gesetze-im-internet.de/eeg_2014/BJNR106610014.html</a>
					Continuation of climate protection strategy of the Federal Land of Bremen			<a href="https://www.bremerhaven.de/verwaltung-politik-sicherheit/klimastadt/klimaschutz-klimaneutralitaet.132366.html">https://www.bremerhaven.de/verwaltung-politik-sicherheit/klimastadt/klimaschutz-klimaneutralitaet.132366.html</a>

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<b>B. Port User Aspects (Superstructur)</b>								
<b>B. V. Other port business (particularly A: conditioning facilities e.g. cars, food, fish...B: port service)</b>								
B.V.1	Noise emissions, particularly • Lorries • Production processes	Air, neighbouring population	A: e.g. BLG Autotec, Deutsche See, Weserport, Frozen Fish  B: e.g. Graue, Oiltanking (Tanklager BHV), Nehlsen, Protectis	BlmSchG  from 17.05.2013 last modified 26.07.2023	Federal Immission Control Act - Act on the Prevention of Harmful Effects on the Environment caused by Air Pollution, Noise, Vibrations and Similar Phenomena	Containment and reduction of noise	Monitoring by GAA	<a href="https://www.gesetze-im-internet.de/bimschg/BJNR007210974.html">https://www.gesetze-im-internet.de/bimschg/BJNR007210974.html</a>
				BremImSchG  from 14.05.2019	Bremen Act on Protection against Harmful Impact on the Environment and Incidents (Bremen Immission Control Act - BremImSchG)			<a href="https://www.transparenz.bremen.de/metainformationen/bremisches-gesetz-zum-schutz-vor-schaedlichen-umwelteinwirkungen-und-stoeraellen-bremisches-immissionschutzgesetz-bremimschg-vom-14-mai-2019-130986?template=20_gp_ifg_meta_detail_d">https://www.transparenz.bremen.de/metainformationen/bremisches-gesetz-zum-schutz-vor-schaedlichen-umwelteinwirkungen-und-stoeraellen-bremisches-immissionschutzgesetz-bremimschg-vom-14-mai-2019-130986?template=20_gp_ifg_meta_detail_d</a>
					Approval of installations			
					Development plans			
B.V.2	Verunreinigungen von Wasser und Boden	Water, soil	A: e.g. BLG Autotec, Deutsche See, Weserport, Frozen Fish  B: e.g. Graue, Oiltanking (Tanklager BHV), Nehlsen, Protectis	RL 2000/60/EG - WRRL  from 23.10.2000 last modified 30.10.2014	Directive 2000/60/EC establishing a framework for Community action in the field of water policy - Water Framework Directive (WFD)	Prevention of water and soil contamination, Emergency plans	Monitoring by environmental agency (SKUMS)	<a href="https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:02000L0060-20141120&amp;from=EN">https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:02000L0060-20141120&amp;from=EN</a>
				WHG  from 31.07.2009 last modified 22.12.2023	Federal Water Act - Act on Managing Water Resources			<a href="http://www.gesetze-im-internet.de/whg_2009/BJNR258510009.html">http://www.gesetze-im-internet.de/whg_2009/BJNR258510009.html</a>
				BremWG  from 12.04.2011 last modified 24.11.2020	Water Act of Bremen			<a href="https://www.transparenz.bremen.de/metainformationen/bremisches-wassergesetz-bremwg-vom-12-april-2011-160048?asf=bremen203_tpgesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d">https://www.transparenz.bremen.de/metainformationen/bremisches-wassergesetz-bremwg-vom-12-april-2011-160048?asf=bremen203_tpgesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d</a>
				AwSV  from 18.04.2017 last modified 19.06.2020	Ordinance on Facilities for Handling Substances that are Hazardous to Water			<a href="https://www.gesetze-im-internet.de/awsv/BJNR090500017.html">https://www.gesetze-im-internet.de/awsv/BJNR090500017.html</a>
				BBodSchG  from 17.03.1998 last modified 25.02.2021	Federal Soil Protection Act - Act for the Protection of Harmful Changes to the Soil and for the Remediation of Contaminated Sites			<a href="https://www.gesetze-im-internet.de/bbodschg/BJNR050210998.html">https://www.gesetze-im-internet.de/bbodschg/BJNR050210998.html</a>
				BremBodSchG  from 27.08.2002 last modified 20.10.2020	Bremen Soil Protection Act - Bremen's Act on the Protection of Soil			<a href="https://www.transparenz.bremen.de/metainformationen/bremisches-gesetz-zum-schutz-des-bodens-bremisches-bodenschutzgesetz-brembodschg-vom-27-august-2002-157828?asf=bremen203_tpgesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d">https://www.transparenz.bremen.de/metainformationen/bremisches-gesetz-zum-schutz-des-bodens-bremisches-bodenschutzgesetz-brembodschg-vom-27-august-2002-157828?asf=bremen203_tpgesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d</a>
				BBodSchV  from 12.07.1999 last modified 09.07.2021	Federal Soil Protection Act - Act for the Protection of Harmful Changes to the Soil and for the Remediation of Contaminated Sites			<a href="http://www.gesetze-im-internet.de/bbodschv/BJNR15540099.html">http://www.gesetze-im-internet.de/bbodschv/BJNR15540099.html</a>
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<b>B. Port User Aspects (Superstructur)</b>							
<b>B. V. Other port business (particularly A: conditioning facilities e.g. cars, food, fish...B: port service)</b>							
B.V.3	Wastewater	Water	A: e.g. BLG Autotec, Deutsche See, Weserport, Frozen Fish  B: e.g. Graue, Oiltanking (Tanklager BHV), Nehlsen, Protectis	RL 2000/60/EG - WRRL  from 23.10.2000 last modified 30.10.2014	Directive 2000/60/EC establishing a framework for Community action in the field of water policy - Water Framework Directive (WFD)	Municipal sewage plant	<a href="https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:02000L0060-20141120&amp;from=EN">https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:02000L0060-20141120&amp;from=EN</a>  <a href="http://www.gesetze-im-internet.de/wtg_2009/BJNR258510009.html">http://www.gesetze-im-internet.de/wtg_2009/BJNR258510009.html</a>  <a href="https://www.transparenz.bremen.de/metainformationen/bremisches-wassergesetz-bremwg-vom-12-april-2011-160048?asl=bremen203_tpgesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d">https://www.transparenz.bremen.de/metainformationen/bremisches-wassergesetz-bremwg-vom-12-april-2011-160048?asl=bremen203_tpgesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d</a>  <a href="https://www.transparenz.bremen.de/metainformationen/bremisches-abwasserabgabengesetz-bremabwag-in-der-fassung-der-bekanntmachung-vom-1-mai-1989-15781?asl=bremen203_tpgesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d">https://www.transparenz.bremen.de/metainformationen/bremisches-abwasserabgabengesetz-bremabwag-in-der-fassung-der-bekanntmachung-vom-1-mai-1989-15781?asl=bremen203_tpgesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d</a>
				WHG  from 31.07.2009 last modified 18.08.2021	Federal Water Act - Act on Managing Water Resources		
				BremWG  from 12.04.2011 last modified 18.12.2018	Water Act of Bremen		
				BremAbwAG from 01.05.1989 last modified 20.10.2020	Wastewater Charges Act of Bremen		
					Approval of installations		
B.V.4	Bulk product dust	Air/area, smell nuisance, neighboring population	A: e.g. BLG Autotec, Deutsche See, Weserport, Frozen Fish  B: e.g. Graue, Oiltanking (Tanklager BHV), Nehlsen, Protectis	ArbSchG  from 07.08.1996  last modified 20.11.2021	Labour Protection Act - Act on the Implementation of Measures of Occupational Health and Safety to Encourage Improvements in the Safety and Health Protection of Workers at Work	Reduction of dust and smell emission	<a href="https://www.gesetze-im-internet.de/arbschg/BJNR124610996.html">https://www.gesetze-im-internet.de/arbschg/BJNR124610996.html</a>  <a href="https://www.gesetze-im-internet.de/bimschg/BJNR007210974.html">https://www.gesetze-im-internet.de/bimschg/BJNR007210974.html</a>
				BlmSchG  from 17.05.2013 last modified 26.07.2023	Federal Immission Control Act - Act on the Prevention of Harmful Effects on the Environment caused by Air Pollution, Noise, Vibrations and Similar Phenomena		
					Approval of installations		

Register of significant environmental aspects								Twin-Ports of Bremen/Bremerhaven
Ref. No.	Environmental impact by port activities	Exposure path-way / Impact on	Responsible organisation	Applicable legislation / strategies / programmes (green: international legislation, red: European legislation, blue: Federal legislation, black: State legislation)	Legal and other requirements	Control measures	URL	
<b>B. Port User Aspects (Superstructur)</b>								
<b>B. V. Other port business (particularly A: conditioning facilities e.g. cars, food, fish...B: port service)</b>								
B.V.5	Risk of explosion and fire	Air, environment, workers, neighboring population	A: e.g. BLG Autotec, Deutsche See, Weserport, Frozen Fish  B: e.g. Graue, Oiltanking (Tanklager BHV), Nehlsen, Protectis	ArbSchG  from 07.08.1996  last modified 31.05.2023	Bye-laws concerning the minimum safety and health requirements for the use of work equipment by workers at work, the safety with regard to the operation of facilities requiring special supervision, the organisation of safety at work	Emergency plans  Local fire brigades	<a href="https://www.gesetze-im-internet.de/arbschg/BJNR124610996.html">https://www.gesetze-im-internet.de/arbschg/BJNR124610996.html</a>  <a href="https://www.gesetze-im-internet.de/awsv/BJNR090500017.html">https://www.gesetze-im-internet.de/awsv/BJNR090500017.html</a>  <a href="https://www.gesetze-im-internet.de/betrsvch_2015/BJNR004910015.html">https://www.gesetze-im-internet.de/betrsvch_2015/BJNR004910015.html</a>  <a href="https://www.gesetze-im-internet.de/getstoffv_2010/BJNR164400010.html">https://www.gesetze-im-internet.de/getstoffv_2010/BJNR164400010.html</a>	
				AwSV  from 18.04.2017  last modified 19.06.2020	Ordinance on installations for handling of substances hazardous to waters			
				BetrSichV  from 03.02.2015  last modified 27.07.2021	Industrial Safety Ordinance - Ordinance on Safety and Health Production in connection with the Use of Work Equipment			
				GefStoffV  from 26.11.2010  last modified 21.07.2021	Hazardous Substances Ordinance - Ordinance on Protection from Hazardous Substances			
B.V.6	Waste	Soil, Water	A: e.g. BLG Autotec, Deutsche See, Weserport, Frozen Fish  B: e.g. Graue, Oiltanking (Tanklager BHV), Nehlsen, Protectis	RL 2008/98/EG - Abfallrahmen-Richtlinie  from 19.11.2008  last modified 30.05.2018	Directive 2008/98/EC on waste and repealing certain Directives	Reduction of waste, safe waste removal  Monitoring by environmental agency (SKUMS)	<a href="https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:02008L0098-20180705&amp;from=EN">https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:02008L0098-20180705&amp;from=EN</a>  <a href="https://www.gesetze-im-internet.de/krg/BJNR021210012.html">https://www.gesetze-im-internet.de/krg/BJNR021210012.html</a>  <a href="https://www.transparenz.bremen.de/sixcms/detail.php?sid=bremen2014_tp_c.68287.de&amp;sl=bremen203_tpgesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d">https://www.transparenz.bremen.de/sixcms/detail.php?sid=bremen2014_tp_c.68287.de&amp;sl=bremen203_tpgesetz.c.55340.de&amp;template=20_gp_ifg_meta_detail_d</a>  <a href="http://www.gesetze-im-internet.de/alt_lv/BJNR023350987.html">http://www.gesetze-im-internet.de/alt_lv/BJNR023350987.html</a>	
				KrWG  from 24.02.2012  last modified 02.03.2023	Closed Substance Cycle and Waste Management Act - Act to promote recycling and to ensure environmentally compatible waste management			
				BremAGKrW-/AbfG  from 23.11.1998  last modified 02.02.2010	Bremen's Act for Implementation of the Closed Substance Cycle and Waste Management Act			
				AltöIV  from 16.04.2002	Bye-laws concerning waste oil			

Register of significant environmental aspects								Twin-Ports of Bremen/Bremerhaven
Ref. No.	Environmental impact by port activities	Exposure path-way / Impact on	Responsible organisation	Applicable legislation / strategies / programmes (green: international legislation, red: European legislation, blue: Federal legislation, black: State legislation)	Legal and other requirements	Control measures	URL	
<b>B. Port User Aspects (Superstructur)</b>								
<b>B. V. Other port business (particularly A: conditioning facilities e.g. cars, food, fish...B: port service)</b>								
B.V.7	Climate protection / energy efficiency	Climate	z.B. EUROGATE (CTB), MSC Gate, NTB, BLG Logistics Group, Weserport	<p><b>European Climate Law</b> of 30 June 2021</p> <p><b>Federal Climate Change Act (KSG)</b> of 12.12.2019 last amended 18.08.2021</p> <p><b>BremKEG</b> of 24.03.2015 last amended 28.03.2023</p> <p><b>Energy Efficiency Act - EnEIG</b> of 13.11.2023</p> <p><b>Building Energy Act - GEG</b> of 08.08.2020 last amended 16.10.2023 in force 01.10.2024</p> <p><b>EDL-G</b> of 04.11.2010 last amended 13.11.2023</p> <p><b>EEG 2023</b> of 21.07.2014 last amended 05.02.2024</p> <p>Continuation of climate protection strategy of the Federal Land of Bremen</p>	<p><b>REGULATION (EU) 2021/1119 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL establishing the framework for achieving climate neutrality</b></p> <p><b>Act on the adoption of a Federal Climate Change Act and to amend other statutory provisions</b></p> <p><b>Bremen Climate Protection and Energy Act</b></p> <p><b>Act to increase energy efficiency in Germany</b></p> <p><b>Act to save energy and promote the use of renewable energy for heating/cooling requirements in buildings</b></p> <p><b>Act on Energy Services and other Energy Efficiency Measures</b></p> <p><b>Renewable Energy Sources Act - Act for the Expansion of Renewable Energy Sources</b></p> <p>Continuation of climate protection strategy of the Federal Land of Bremen</p>			<a href="https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:32021R1119&amp;from=DE">https://eur-lex.europa.eu/legal-content/DE/TXT/HTML/?uri=CELEX:32021R1119&amp;from=DE</a> <a href="http://www.gesetze-im-internet.de/ksg/BJNR251310019.html">http://www.gesetze-im-internet.de/ksg/BJNR251310019.html</a> <a href="https://www.transparenz.bremen.de/metainformationen/bremisches-klimaschutz-und-energiegesetz-bremkeg-vom-24-maerz-2015-1909337#asId=bremen203_tpgezeit.c.55340.de&amp;templat=20_gp_ifg_meta_detail_d">https://www.transparenz.bremen.de/metainformationen/bremisches-klimaschutz-und-energiegesetz-bremkeg-vom-24-maerz-2015-1909337#asId=bremen203_tpgezeit.c.55340.de&amp;templat=20_gp_ifg_meta_detail_d</a> <a href="https://www.gesetze-im-internet.de/eneig/index.html">https://www.gesetze-im-internet.de/eneig/index.html</a> <a href="https://www.gesetze-im-internet.de/geg/">https://www.gesetze-im-internet.de/geg/</a> <a href="https://www.gesetze-im-internet.de/edl-g/BJNR148310010.html">https://www.gesetze-im-internet.de/edl-g/BJNR148310010.html</a> <a href="https://www.gesetze-im-internet.de/eeeg_2014/BJNR106610014.html">https://www.gesetze-im-internet.de/eeeg_2014/BJNR106610014.html</a> <a href="https://www.bremerhaven.de/de/verwaltung-politik-sicherheit/klimastadt/klimaschutz-klimaneutralitaet.132366.html">https://www.bremerhaven.de/de/verwaltung-politik-sicherheit/klimastadt/klimaschutz-klimaneutralitaet.132366.html</a>

Annex B:  
Environmental Performance Indicators

	Available since	Responsible	Unit	2023	2022	2021	2020	2019
<b>Operational Performance Indicators</b>								
Amount of dredged material: Sand	2017	bremenports: Port maintenance and environmental management	m <sup>3</sup> /m <sup>2</sup>	0,10	0,03	0,45	0,13	0,20
Amount of dredged material: Silt	2017	bremenports: Port maintenance and environmental management	m <sup>3</sup> /m <sup>2</sup>	0,34	0,43	0,28	0,27	0,16
Calculated air pollutants emitted from vessels in the port areas	2015	Institute of Shipping and Logistics (ISL / bremenports)						
Bremen				gCO <sub>2</sub> /BRZ	n.a. <sup>1</sup>	1358	1290	
				mgSOx/ BRZ		730	140	
				mgPM/ BRZ		134	13	
				gNOx/ BRZ		17,9	19,4	
Bremerhaven				gCO <sub>2</sub> /BRZ	n.a. <sup>1</sup>	822	639	
				mgSOx/ BRZ		500	80	
				mgPM/ BRZ		97	11	
				gNOx/ BRZ		14,0	10,8	
Noise from container port operations	2008	bremenports, Port development department	db(A)/1 m TEU	48,9	49,6	49,4	48,5	49
CO2 emissions of the container terminal	2008	Eurogate	kg/Box <sup>2</sup>	19,9	22,5 <sup>1,3</sup>	16,55	13,2	12,8

<sup>1</sup> n.a. not available

<sup>2</sup> Carbon emissions in kg per container handled

<sup>3</sup> Since 2022 the emissions well to tank have been also taken into account

	Available since	Responsible	Unit	2023	2022	2021	2020	2019
<b>Management Performance Indicator</b>								
Use of regenerative energy port infrastructure and port management	2008	bremenports, Energy management	%	92	90	88	90	87
Share of silt accepted at IBE for recovery and/or disposal	2017	bremenports, Port maintenance and environmental Management	%	22	30	43	71	85
		of which with recovery option	%	58	73	80	76	74
		share that was actually used in (internal) projects	%	100	100	100	98	89
Share of ship arrivals with Environmental Ship Index	2012	bremenports, Port charges und environmental management	%	35	32	34	50	43
		Bremerhaven	%	41	37	39	56	49
		Bremen	%	14	16	14	27	21
Share of ship inspections in relation to total arrivals	2021	Harbour master office						
		Bremen	%	16,2	7,5	5,3	n.a. <sup>4</sup>	n.a.
		Bremerhaven	%	11,4	6,6	4,2	n.a.	n.a.
Number of infringements	2021	Harbour master office						

<sup>4</sup> The division between Bremen and Bremerhaven has been carried out since 2021.

		Category: Environment <sup>5</sup>	Number	48/57	8/14	29/2	n.a. <sup>6</sup>	n.a.
		Category: Environmental, occupational and operating safety	Number	14/1	8/0	2/2	n.a.	n.a.
		Category: Occupational and operating safety	Number	48/21	31/15	29/10	n.a.	n.a.
Compliance with sulphur limit regulations	2010	Harbour master office	%			n.a. <sup>7</sup>	100	97
		Bremen	%	100	100	n.a.		
		Bremerhaven	%	100	100	n.a.		

<sup>5</sup> The Environment category includes infringements relating to ship-generated waste

<sup>6</sup> The division between Bremen and Bremerhaven has been carried out since 2021.

<sup>7</sup> Due to the corona pandemic no inspections were carried out or the numbers are not representative

	Available since	Responsible	Unit	2023	2022	2021	2020	2019
<b>Environmental quality indicators</b>								
Air quality	since 1987	SUKW <sup>8</sup>						
Bremerhaven - Hansastrasse				µgNO <sub>2</sub> /m <sup>3</sup>	15	18	18	17
				µgSO <sub>2</sub> /m <sup>3</sup>	1	1	1	1
				µgPM <sub>10</sub> /m <sup>3</sup>	14	16	15	15
				µgPM <sub>2,5</sub> /m <sup>3</sup>	9	9	9	11
Bremen – Hasenbüren				µgNO <sub>2</sub> /m <sup>3</sup>	10	12	13	12
				µgSO <sub>2</sub> /m <sup>3</sup>	2	2	1	1
				µgPM <sub>10</sub> /m <sup>3</sup>	14	16	16	16
				µgPM <sub>2,5</sub> /m <sup>3</sup>	9	9	10	9
Habitat Index for the total port area	2006	bremenports, environmental management	%	38	38	38	37	37
TBT contamination in the sediments from the port areas	2002 / 2007	bremenports, environmental management						
Bremen			% of Index <sup>*9</sup>	27	18	n.a. <sup>10</sup>	26	24
Bremerhaven/Überseehafen			% of Index*	14	9	n.a.	30	28
Bremerhaven/Fischereihafen			% of Index*	24	11	n.a.	13	23

<sup>8</sup> The Senator for Environment, Climate and Science

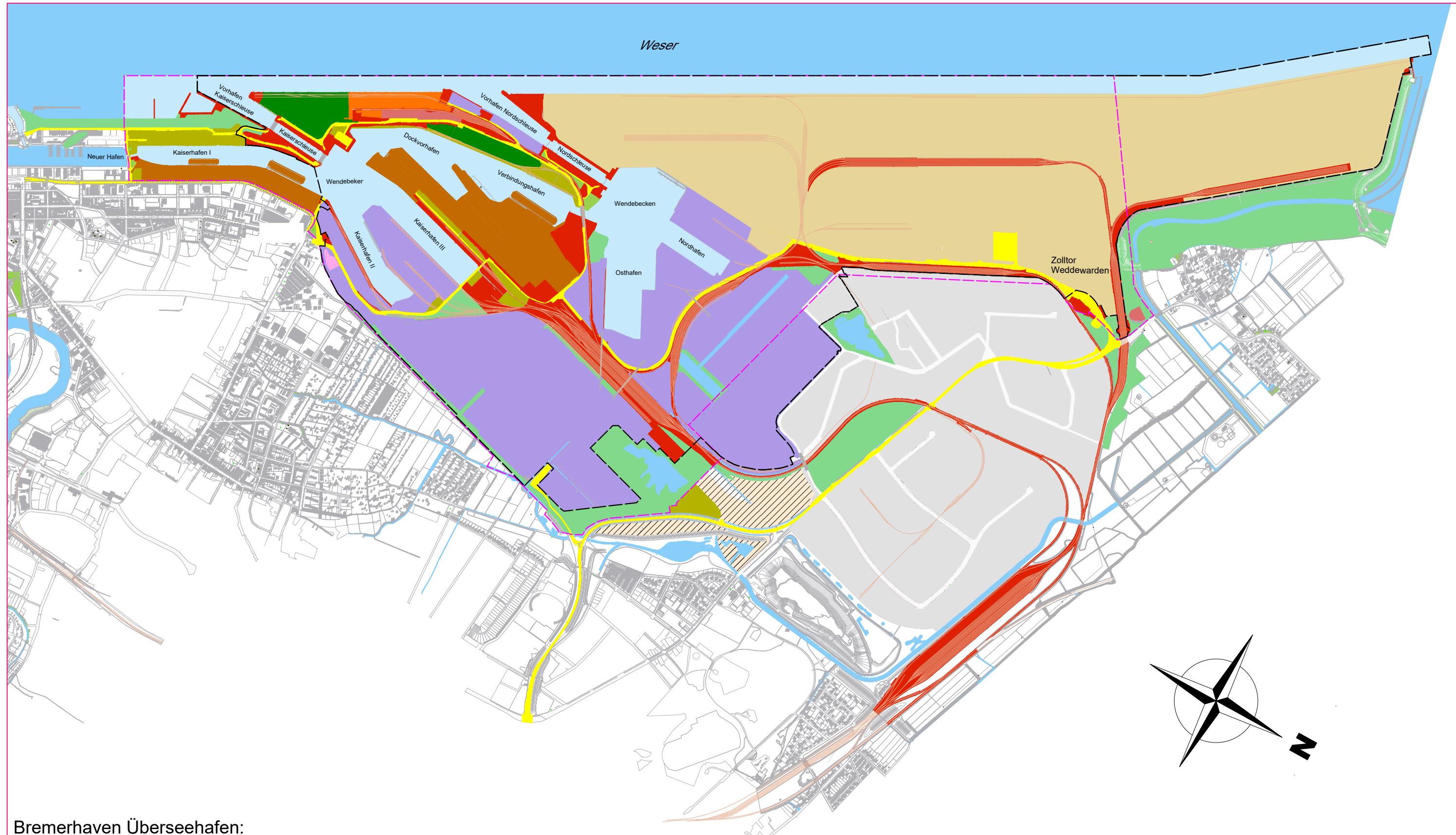
<sup>9</sup> \* Index-Values: Bremen-Stadt 299µg/kg TBT, Überseehafen 4246µg/kg TBT, Fischereihafen 4758µg/kg TBT

<sup>10</sup> 2021 no sediment samples were taken

Port Area Bremerhaven 2023	Infringements			
	sea going vessels	barges	land facilities	sum
personal protective clothing and gear	12	0	1	13
Hatches, jetties and accesses	4	0	1	5
Lighting	0	0	0	0
Labor inspection	0	0	2	3
Pollution	56	0	1	57
Hoist	0	0	0	0
Have the load stowed or secured	0	0	1	1
noise abatement	0	0	0	0
Fire permit violation	0	0	0	0
Violation of the smoking ban	0	0	0	0
life-saving appliances on shore installations	X	X	0	0
structural condition of land facilities	X	X	0	0
ISPS facilities on shore installations	X	X	0	0
Sum	72		6	78

Port Area Bremen 2023	Infringements			
	sea going vessels	barges	land facilities	sum
personal protective clothing and gear	5	0	3	8
Hatches, jetties and accesses	3	1	10	14
Lighting	0	0	1	1
Labor inspection	1	0	0	1
Pollution	36	0	12	48
Hoist	0	0	0	0
Have the load stowed or secured	1	0	1	2
noise abatement	1	1	0	2
Fire permit violation	1	0	1	2
Violation of the smoking ban	5	0	4	9
life-saving appliances on shore installations	X	X	12	12
structural condition of land facilities	X	X	13	13
ISPS facilities on shore installations	X	X	0	0
Sum	53	2	57	112

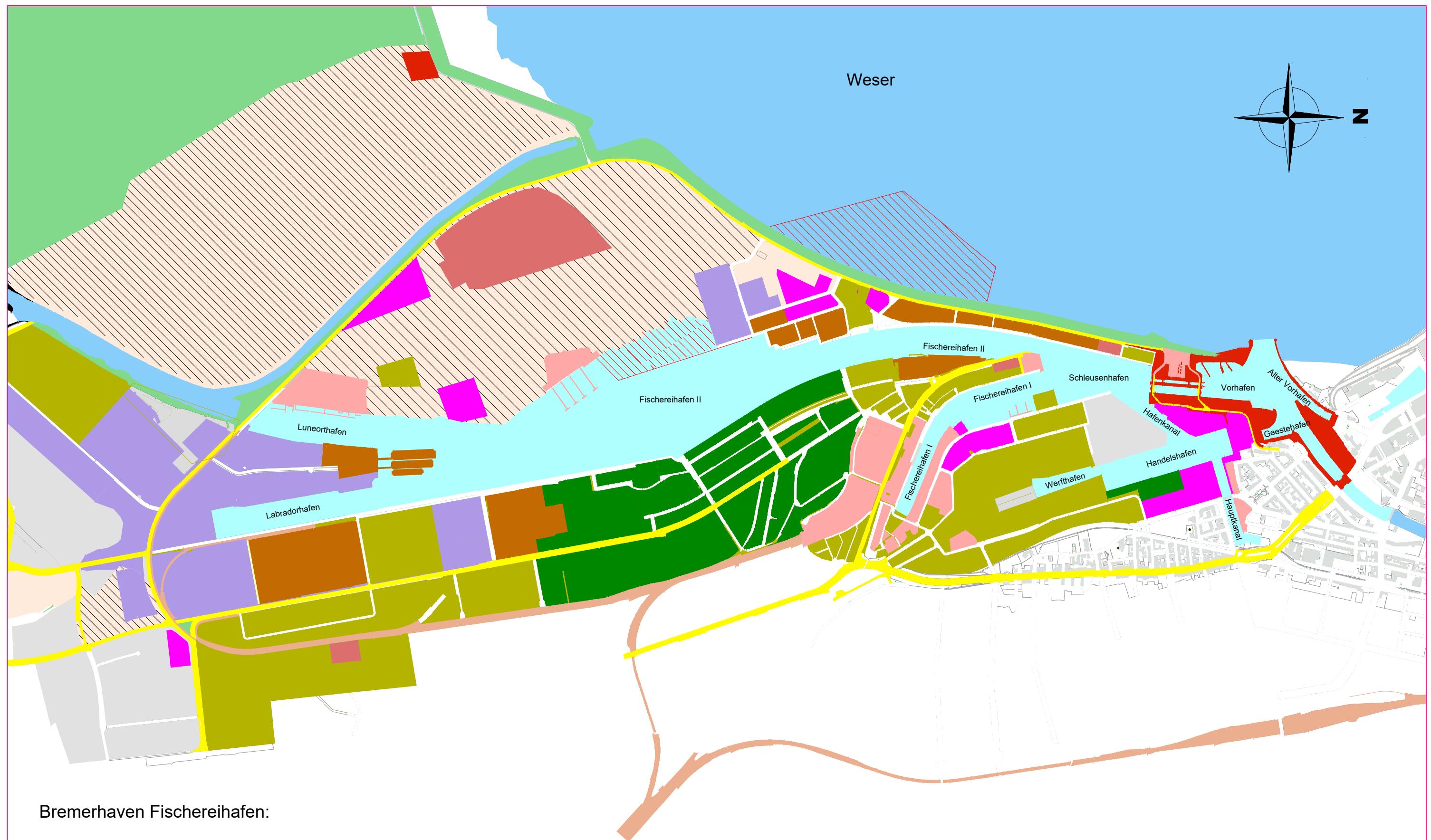
## Annex C: Maps



### Bremerhaven Überseehafen:

Container Terminal	Portwaters	Industrial areas	Supply and disposal (fuel, electricity and waste water)
Automobile- and High & Heavy-Terminal	Other operating facilities/plant belonging to the Special Assets (locks, port infrastructure, building yard etc.)	Industrial areas (planned)	Free port boundary
Shipyard	Railway tracks	Waters	Boundary of our responsibility
Cruise Terminal	Nature areas and compensatory mitigation sites, green spaces, and dykes	Roads inside port areas & for port access	
Fruit Terminal	Other business enterprises	Conventional general and bulk cargo handling	

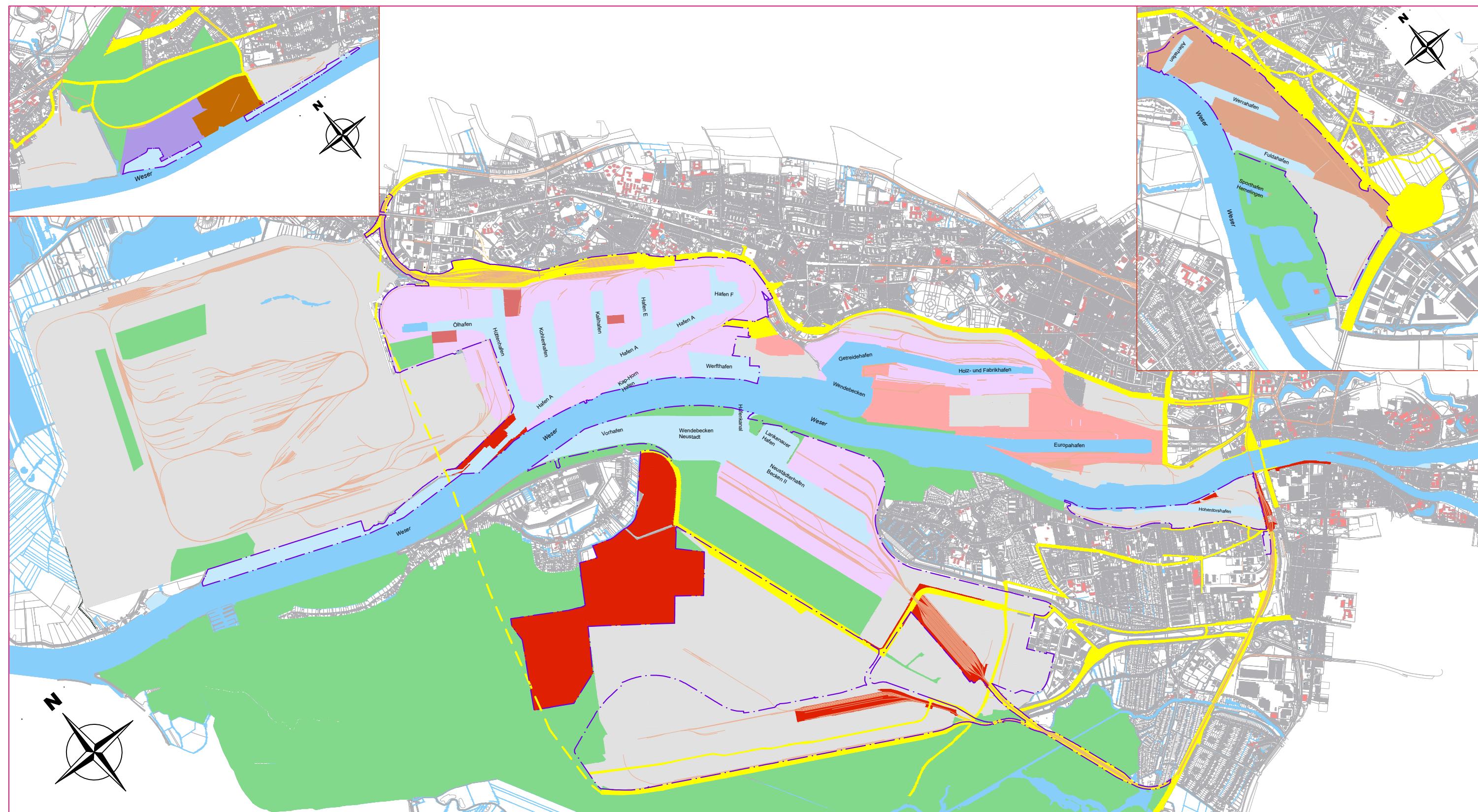
Stand: Juli 2024



#### Bremerhaven Fischereihafen:

	General and bulk cargo handling		Portwaters		Industrial areas
	Shipyard and steel construction		Other operating facilities/plant belonging to the Special Assets (locks, port infrastructure, building yard etc.)		Industrial areas (planned)
	Research and Development		Railway tracks		Other operating facilities/plant (locks, port fa
	Food and cold stores		Nature areas and compensatory mitigation sites, green spaces, and dykes		Waters
	tourist, residential, service area and recreational		Other business enterprises		Roads inside port areas & for port access
					Supply and disposal (fuel, electricity and waste water)

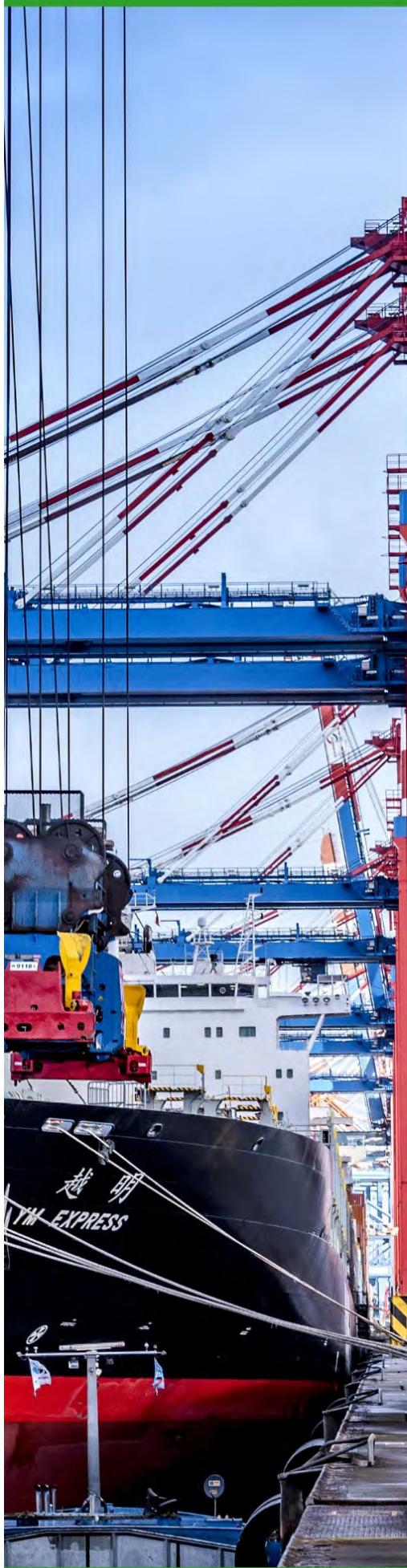
Stand: Juli 2024



### Bremen:

Industrial areas	Portwaters	Supply and disposal (fuel, electricity and waste water)
Automobile- and High & Heavy-Terminal	Other operating facilities/plant belonging to the Special Assets (locks, port infrastructure, building yard etc.)	Barge Throughput
Shipyard	Railway tracks	Recreational, Tourist, residential and service areas
Roads inside port areas & for port access	Nature areas and compensatory mitigation sites, green spaces, and dykes	Boundary of our responsibility
Waters	Conventional general and bulk cargo handling	Planned A281 Motorway

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