



Port Environmental Review System (PERS) 2024-2026



Photo: Joachim de Ruijter

April 2024



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The port of Harlingen, as seen from the office. Photo: Joachim de Ruiter

1. Introduction

1.1. Balancing ecology and economy

The port of Harlingen is located in the north of the province of Fryslân and borders the Dutch part of the UNESCO World Heritage Wadden Sea. The municipality of Harlingen privatised the port in 2018 by incorporation of NV Port of Harlingen (with the municipality as a 100% shareholder), henceforth referred to as PoH. The port of Harlingen is an important pillar of the economic development of the Northern Netherlands and the city of Harlingen in particular. At the same time, its location on the Wadden Sea brings major ecological challenges, challenges that PoH is very aware of and takes very seriously.

A path to sustainable growth

In the policy paper “A road to sustainable growth” dated 17th of April 2019, the long-term sustainability vision developed together with stakeholders has been determined. The ambition is to become “the most sustainable maritime and logistic heart of the Northern Netherlands” by 2035. In order to fulfil this ambition, the focus set out in the policy paper is maintaining and creating employment, and ensuring continuity and growth opportunities for companies in the port area, all in balance with the natural environment. To achieve these ambitions for 2035, collaboration with stakeholders is essential for the seaport and PoH.

PoH has been Ecoport certified for the first time in 2010. Since then, PoH has been recertified in 2015, 2017, 2020 and 2022. The certificate keeps PoH on track and helps it pay continuous attention to the balance between ecology and economy and how it shapes and wants to shape its sustainable ambitions.



Harlingen at dusk. Photo: Joachim de Ruiter

Strategy

In order to be and remain an attractive business location, sustainable development is a prerequisite. While respecting the ecological value of the Wadden area, PoH focuses on growth within the existing space and by preserving strong niches and sectors. Connecting port companies and business clusters and stimulating cooperation allows them to strengthen themselves and each other. Thanks to the short lines of communication with companies and administrators, PoH is able to respond quickly to new developments. The coming years PoH will continue to focus on strengthening the economy, sustainability, transport and, logistics.

Roles

PoH's role as port authority is to facilitate and encourage the development, growth, innovation and sustainability initiatives of and within the seaport, and waterborne freight transport. PoH connects and stimulates. PoH is committed to creating synergy benefits on the basis of "the right company in the right place". Based on this vision and strategy, the port is managed in an enterprising, decisive and sustainable way. As a port authority, PoH is facilitator, booster and director. By being constantly aware of these three roles, goals and ambitions set out in the policy paper can be achieved. In this way, a stable, effective, safe and sustainable basis for a professional and versatile port is created.

Ecoports

The ambitions regarding the development, innovation and sustainability of the port are outlined in the Port Environmental Review System (PERS) for the coming years. With the PERS as a monitoring tool, PoH will continue to improve its sustainability.



Harlingen including the port. Photo: Joachim de Ruijter

1.2. Management statement

PoH has the ambition to be “The sustainable maritime and logistical heart of the Northern Netherlands” by 2035. As such, an environmental policy and management system has been developed, tailored to local port activities and ambitions.

Promises:

1. To contribute to long-term sustainable development by identifying, monitoring and minimising the environmental impact of the activities of PoH and the companies in the port area.
2. PoH will hereby follow the national standards (guidelines) as defined by the European Seaport Organisation (ESPO) in the PERS and the principles of corporate social responsibility.
3. PoH commits to the agreements set out in the "Pact of Marrum" and the "Agenda for the Wadden Region 2050".
4. In case of port expansion, PoH optimises the port by applying the "Building with Nature" principle.
5. PoH stays well abreast of existing and new environmental legislation and will comply with all environmental requirements applicable to PoH.
6. PoH supports her customers and stakeholders in their plans and with the implementation of innovations and (development of) sustainable practices, and the use of sustainable products.
7. PoH communicates and carries out its environmental policy both internally (with employees) and externally (e.g. with tenants, contractors or residents of Harlingen) through the policy statement and the environmental report.
8. Information will be shared with other Wadden Sea ports to learn together and improve joint environmental policy.
9. PoH ensures efficient collection, control, and handling of the various waste flows in the port.
10. The shipping industry is encouraged to use cleaner fuel in accordance with the latest insights into sustainable fuels.
11. The (negative) environmental effects of dredging will be taken into account when performing obligations of dredging the port basins.
12. PoH ensures that the port is a pleasant place to work in and to visit.

Harlingen, 28 March 2024



Paul Pot

CEO

2. Port Profile

2.1. General information

The port of Harlingen is located Northwest of the town Harlingen, on the intersection of major road and waterways. The port is a turntable between the Wadden Sea, the North Sea and the hinterland. Several important inland shipping lanes connect the port of Harlingen with the ports of Kampen, Amsterdam and Rotterdam. Furthermore, the port has short sea routes with Great Britain, Scandinavia and the Baltic states.

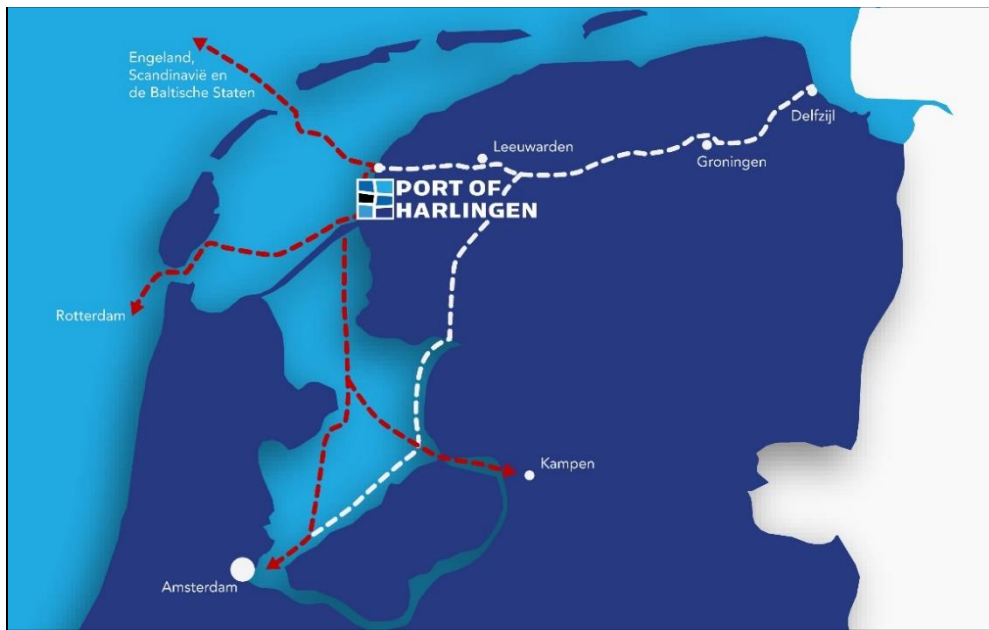


Figure 1. Location of the port and inland connectivity in the Netherlands



Figure 2. Short sea connectivity of the port

The strategic location on the crossroads of waterways gives the port an important economic function for the North of the Netherlands and the province of Fryslân in particular.

2.2. Port areas

The port of Harlingen has various port areas, as shown in Figure 3 below. Each of these port areas focusses on a specific customer group. The activities that take place in the various port areas are discussed in the chapters below.



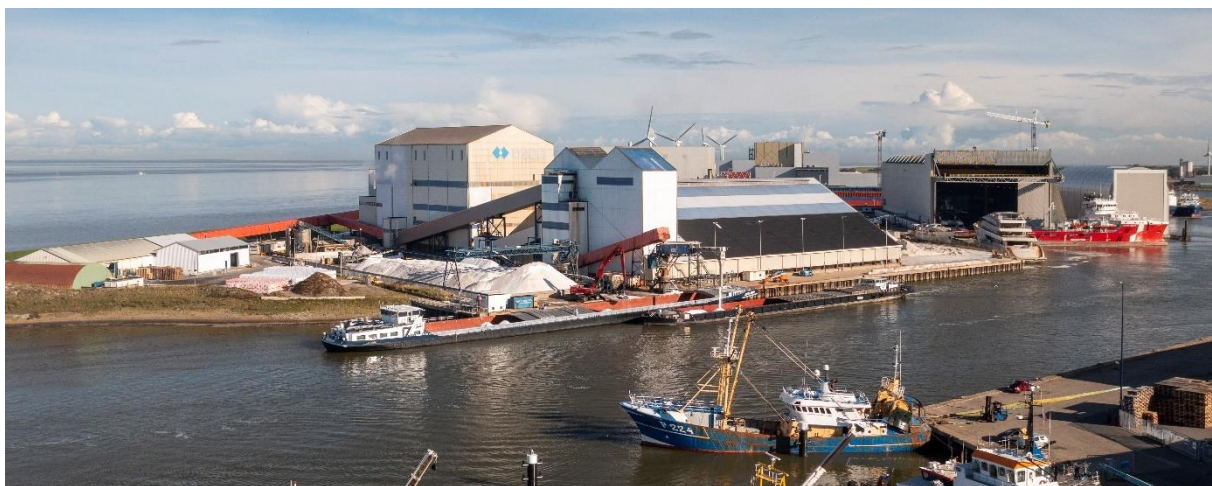
Figure 3. Map of the port and main harbour areas

2.3. The industrial port and the new industrial port (industrial ports)

The industrial port ('Industriehaven') and its expansion through the new industrial port ('Nieuwe Industriehaven') are the locations of the larger industrial and logistic facilities. In this part of the port, 1.500 meter of quay is available for loading and unloading ships, both for inland shipping and seagoing vessels. These port areas can be reached directly from the North Sea via a 7.5-meter-deep channel through the Wadden Sea, i.e. without first having to pass bridges or locks. For the depths of the different port areas, see Annex I.

In these port areas, a variety of port related companies are active, i.e.:

- Transshipment companies that facilitate the import and export and transit of goods by sea, road and inland waterways, like HOV Harlingen BV and Nesta Shipping BV;
- Food storage companies and food products (potatoes and fish); companies with warehouses for cold and deep-frozen storage. Examples of these companies are Lineage, Lenger Seafood BV. and Urk Fish Auction;
- Bulk material companies that process raw materials and food products (potatoes and fish), like Esco Frisia zout (salt production) and Spaansen (sand, gravel and concrete products);
- Other companies in these port areas are companies with maritime support functions, such as shipyards, (offshore)services and supply companies. Examples of these companies are Damen Ship Repair Harlingen, BDS Harlingen (emergency management), Tuinman Sleepdiensten (towing service) and J.W. van Stee (nautical services);
- The shipping agents Nesta Shipping and Kuhlman Repko Shipping.



Frisia, Icon Yachts, REC in background. Photo: Joachim de Ruijter

2.4. Ferry port

The ferry service from Harlingen to the Wadden islands Terschelling and Vlieland is being operated by the Terschellinger Stoomboot Maatschappij (TSM), better known as Rederij Doeksen. Doeksen also operates a RoRo ferry designated for trucks. This logistic process is located separate from the regular passenger service. This RoRo ferry mainly provides daily provision for supermarkets, shops and restaurants on the islands and returns domestic waste and dairy products to the mainland.

Doeksen provides its ferry services based on a concession with the Dutch state. The goal of this concession is to provide public transport between the mainland and the Wadden islands in such a way this connection is adequate to the public and the islanders. The adequacy of the connection lies in regular, structural, affordable, reliable and financially sound ferry service throughout the entire year, including periods in which there is minimal transport and operations unprofitable.

The number of passengers and sailings over the past years has been strongly affected by the corona crisis. In 2022 the transport volumes have more or less returned to a stable level. For the coming years, Doeksen expects a modest growth in the transport demand of about 1 to 2% per year. The timetable for 2023 contains about the same number of sailings as before 2022. The expected growth in transport demand can be covered well with the current timetable.

Doeksen currently sails with four regular car and passenger ferries, of which two are LNG powered, and two high speed passenger ferries. In the near future, all but the LNG ships, need to be replaced. Renewed awarding of the concession offers – through well considered formulating of the award criteria – many opportunities for sustainability, increased operational efficiency and interface with the immediate (residential) environment.

2.5. Marina

Harlingen has a marina located in the old part of the city, in the North harbour and the back part of the South harbour. These are located in the centre of Harlingen and as such, are near a lot of the sightseeing locations of the city. Leisure crafts often dock here when traveling from or to the Wadden Sea.

2.6. Fishery port

The Fishery port is home to the Urk fishing fleet, the most important fishing fleet in the Netherlands. This is because the port of Harlingen has easy access to the North Sea. At the end of a fishing week, the fishing vessels return to the port to deliver and trade their catch at the Urk Fish Auction.



Zaagtandsteiger (Sawtooth pier) in the fishery port. Photo: Joachim de Ruijter

The most regular landed fish in the port of Harlingen are: sole, plaice, haddock, cod from the North Sea, and shrimp, cockle and mussels from the Wadden Sea.

2.7. Traditional Sailing Barges

The Traditional Sailing Barges consists of 400 traditional sailing ships that are used for recreation purposes, 70 of which have Harlingen as a home port. These ships are of great importance to Harlingen because they make Harlingen the largest charter harbour in the Netherlands. From April until October the Traditional Sailing Barges sail with passengers on the Wadden Sea, the IJsselmeer and the Frisian lakes. The ships are moored in the Nieuwe Willemshaven, Het Dok and in the front part of the Zuiderhaven. This makes for a tourism hotspot for Harlingen and as such, are very valuable for the city.



Tall Ship Race 2022. Photo: Joachim de Ruijter

2.8. Management of the port

With the privatisation of the port in 2018, PoH has been given its own responsibility for the development, operation and management of the port. In addition, PoH is responsible for the result towards its sole shareholder, the municipality of Harlingen.

For the development and exploitation of the port, PoH acts as a landlord. This means that PoH is responsible for the port area, terrains, ports, quay walls, access and disclosure and the developments and exploitation of the port area. To give an indication on how PoH intends to fulfil its responsibility, PoH has developed a business plan 2019-2023. This business plan is updated in the new business plan for the upcoming five years till 2028.

The development, management and exploitation tasks of PoH include:

- Exploitation of the port area, terrain, ports and quay walls based on rent or long lease;
- Spatial planning, design and development of port infrastructure;
- Project management, selection and contracting of companies for the realisation of port infrastructure;
- Maintenance and management of the port infrastructure (quay walls, jetties, dredging, roads, grounds and anti-slippery control), including the physical environment;
- Environmental management;
- Competitive analysis, market research and formulation of strategic policy;
- Formulation of commercial policy, amongst others the issuance policy, acquisition policy, investment policy, and pricing policy;
- Promotion and marketing;
- Acquisition of companies and cargo (in collaboration with port industry);
- Business development;
- Land issuance and tender procedures;
- Account- and contract management (compliance with contract and invoicing), maintaining business relationships.

3. Environmental Aspects

3.1. Register of environmental aspects

This section identifies the environmental aspects relevant to PoH. A summary of the environmental aspects can be found in Table 8, *Environmental Aspect Register PoH*, in Annex III. This register of environmental aspects is required for the effective management of the environmental performance. It gives an overview of the awareness and knowledge in relation to the activities, products and services of the port, and describes for each activity what the impact of that activity is on the environment. It also describes who/which department is involved in that activity, what legislations and legal requirements are applicable. Finally, it describes what measures are taken to prevent or at least limit impact on the environment.



The office of Port of Harlingen. Photo: Joachim de Ruijter

An environmental aspect is defined by ESPO as: “Elements of the Port Authority’s activities, products, or services, which interact with the environment.” An aspect is considered significant based on legal requirements, policy statements, or by stakeholder concerns. Policy and legal requirements are also identified for the aspects to ensure compliance with legislation. EU directives are translated into national laws. For example, the EU Water Directive is implemented at national level through the Dutch ‘Waterwet’. That is why sometimes only national laws and not EU directives are mentioned. For a complete overview of all legislation and regulations relating to environmental aspects, see Annex II.

3.2. Prioritising environmental aspects

A list of priorities has been drawn up based on the effects on the environment and latest developments at the port. This list is updated every two years. Table 1 compares the priorities of the previous and the current PERS. This prioritisation was established after consultation of stakeholders, such as environmental organisations, the municipality and companies in the port area.

Prioritisation	PERS 2022-2024	PERS 2024-2026
1	(Ship) Waste	Dredging
2	Energy efficiency	Energy efficiency
3	Dredging operations	Ship waste
4	Water quality	Relationship with local community
5	Relationship with local community	Water quality

Table 1. Priority of environmental aspects of the previous PERS and the current PERS

The table shows that tackling the Waste problem is still on the list but no longer the number 1 priority for the parties involved. This is because tighter legislation has been in place since the 1st of January 2023 to manage waste flows. Instead Dredging is more subject to concern due to its impact on the aquatic environment. Therefore, PoH cooperates with stakeholders, NGO's and national government to reduce this impact.

4. PERS 2022-2024

4.1. Environmental performance indicators

The table below lists PoH's goals as established in the previous PERS and the actions taken to achieve those goals.

Environmental aspect	Indicator	Action(s)
Waste	Reduce the amount of litter in the port	New Port Waste Plan is established waste collection facilities for ships is optimised Visited companies for awareness of waste management Participated in clean up XL Contributed to Bubble barrier Joined Green Deal ships waste chain Participated in Fishing for litter
	Raise awareness among businesses about careful waste management	
	Reduce the number of complaints	
	Improve the quality of ship waste collection facilities	
	Amount of waste collected via Fishing for Litter	
Energy (efficiency)	Increase hours of use of shore power by ships.	Stimulate the use of shore power Expand shore power supplies where needed. Participate in a project to develop a hydrogen generator for shore power supply.
	Reduced energy consumption / cleaner energy	New energy contract with 100% green energy. Install solar panels on the building of "Urk Fish Auction". Implement sustainable solutions during office renovations. Dark sky
	Cleaner fuels	LNG bunkering locations Encourage realisation of a sustainable fuel plant (sustainable gasses) Participation in green awards
Dredging	Alternative applications of dredged materials	Use of dredged material from harbour in pilot project for alternative application of dredged material.
Water quality	Reduce the amount of oil spills	New legislation coming into force has significantly reduced the number of oil spills.
	Collection of waste water	Realisation of one wastewater collection facility in the port
Relationship with the local community	Involvement stakeholders	Engaging stakeholders in the establishment of the environmental management system (PERS) Communicate about environmental policy through the website and other means
	Participation in local environmental projects	Collaboration with local entrepreneurs and companies and participation in local sustainable projects
	Internship	Engage with research centres/universities to offer internship regarding environmental management

Table 2. Overview of the environmental performance indicators and actions 2022-2024

The following paragraphs will elaborate about these environmental aspects and performance indicators. In addition, new environmental developments that are not announced in the previous PERS will be described.

4.2. Waste

Wherever there is work and recreation, waste is generated. If everything goes according to plan, this waste ends up in the appropriate containers and is collected, disposed of and processed according to the rules. Practice, however, proves much more recalcitrant. Reducing the amount of waste, especially plastic, is especially important in and around a vulnerable area like the Wadden Sea.

Besides preventing waste from disappearing into the seas and oceans by arranging good facilities for ships to deposit their waste, keeping the quays clean is at least as important. Rubbish left on the quays does not just attract seagulls and rats, but it is also likely to get blown into the harbour's waters. Moreover, litter on the street generates more junk. A clean port is an attractive port. To achieve this, PoH's approach distinguishes between:

- 1) waste originating from seagoing vessels;
- 2) waste originating from pleasure craft, inland shipping and the traditional sailing vessels;
- 3) floating waste and litter.

Ad 1 Waste originating from seagoing vessels

For the collection of waste originating from seagoing vessels, the Prevention of Pollution from Ships Act applies. Since 1 January 2023, the new EC Directive 2019/883 has been fleshed out through a legislative amendment to the Wvvs. The Port Waste Plan (see [our website](#)) elaborates on how PoH implements the new rules. through strict regulation by law, the amount of litter in ports has been significantly reduced.



One of the containers used for waste disposal for ships. Photo: Port Authority

The new directive further lowers the threshold for dropping off waste. Seagoing ships were already obliged to surrender all their waste on arrival in port, however, monitoring will be even stricter now, and the amount of waste surrendered at port will be checked to see if it matches with what is expected. Waste collection and disposal costs money. There is therefore tempting to reduce those costs by delivering less waste. the new Directive overcomes this by a tightened system of financing. Port operators pay 30% of the average total costs of collection and processing of liquid, oily waste (bilge and sludge), and 100% of the costs of household waste (incl. small hazardous waste). This does not mean that seagoing vessels no longer incur any costs at all for this. But under the new system, the cost of waste collection has been decoupled from the amount of

waste a ship delivers. Sea-going vessels pay a so-called HAP contribution (HAP stands for Haven

Afvalstoffen Plan (Port Waste Plan)) when entering the port. The amount of this fee depends on the size of the ship, and is unaffected by the amount of waste deposited by the ship. This way, the threshold for dropping off is lower. After all, people have already paid in the form of the HAP contribution.

This does not mean that the waste problem in the port is now completely solved. Simultaneously with the coming into force of the new regulations around the collection of ship-generated waste from seagoing vessels, a new regulation for waste from fisheries came into force (see the port waste plan for fisheries (VISHAP)). Fishermen pay a small amount at each landing as a waste fee. For this, they can dispose of their household waste in the designated bins on the jetties and quays at no further cost. Members of the SFAV (Stichting Financiering Afval Visserij), a special organisation in Urk aimed at the fishing industry, can also deposit their small hazardous waste at no further cost, as well as their liquid oily waste. Fishermen who are not members of the SFAV pay the cost of handing in these waste streams themselves.

Ad 2 Waste from pleasure craft, inland shipping and traditional sailing vessels

Waste collection in the inland ports is the municipality's responsibility in accordance with the agreements made when the port authority became independent. Several bins have been placed in the inner harbours to collect waste separately (glass, paper and residual waste).

Collection facilities for recreational boats have been optimised over the past two years. The cardboard containers now have a slim opening with, so users have to fold their cardboard before disposing of it. This allows more paper waste to be put in the bin.

Arrangements have been made with (representatives of) the traditional sailing fleet that waste is only taken to the bins when accompanied by someone from the ship's crew and dropped in the appropriate bin under the watchful eye of the crew. In practice, these agreements are not always observed. Passengers are still too often sent out unaccompanied to put the waste 'somewhere'. Apart from passengers from the traditional sailing fleet, residents of Harlingen sometimes throw their waste in the bins in the inner harbours. The result is bulging waste bins and a polluted harbour.

In the Noorderhaven and Zuiderhaven, there are no problems with litter lying around. Boaters of pleasure yachts and the traditional sailing fleet use the underground containers there.

Ad 3 Floating waste and litter

Litter is regularly found on the quays and embankments. The waste on the quays originates from companies, while the waste on the slopes is mainly washed ashore. Conversations are held with each company about the waste generated during their operations to make arrangement to ensure a cleaner port. experience has shown that, personal contact with these companies contributes to their willingness to assist in working towards to a clean port.

The generation of floating waste is more difficult to regulate. Harlingen harbour is an open seaport where tides play a role. Also waste water from the inland canals is streaming through the port. This water also contains litter. At high tide, floating waste is thrown onto the embankments, which remains on the embankments at low tide. Recently, a clean-up operation yielded seven large big bags of rubbish washed up with a storm.

Bubble Barrier

The Bubble Barrier is a system in which a pipe blows bubbles into the water. This redirects waste to a system that collects the waste after which it is disposed of via land. Ships have unhindered passage despite the bubbles, as do fish. The system only affects objects floating in the water.

At the end of March 2024, the Bubble Barrier will be placed in the Van Harinxmakanaal as part of the "cleanest city by the Wadden Sea" project.

Fishing for Litter

In the "Fishing for Litter project", participating fishermen take the litter that ends up in their nets to land, where it is taken in, disposed of, monitored and processed. The fishermen participate selflessly. The project is funded by the EU with a contribution from participating ports. The project was originally set up by KIMO (Kommunernes Internationale Miljøorganisation, founded in Denmark in 1990) a network of more than 80 local authorities in eight countries working



Unloading bags with fished up litter. Source: Kimo International

together for healthy seas, clean beaches and thriving coastal communities. Its mission is to prevent pollution and protect, preserve and improve the seas and coastal waters of the Northeast Atlantic and Baltic regions. In 2019, Fishing-for-Litter waste was included as the waste type "passively fished waste" in the amended EU Directive 2019/883. Since then, on behalf of the Dutch ports, KIMO has been jointly regulating the organisation and implementation of collection, processing and monitoring of passively fished-for waste landed in Dutch ports.

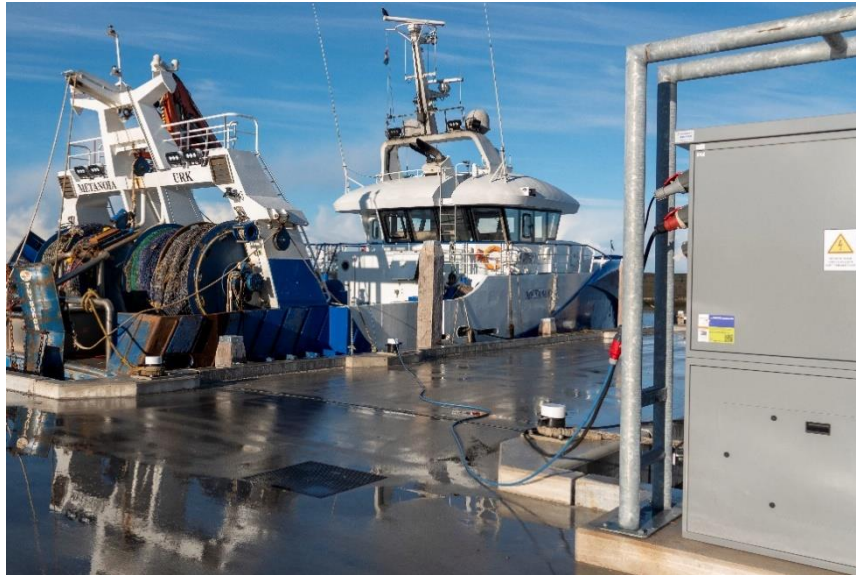
Complaints

The Port of Harlingen's Port Waste Plan describes the procedure for handling complaints. So far, no formal complaints have been received at PoH. It is PoH's port officials who have an important signalling role and act accordingly.

Complaints about litter now mainly come in to the municipality of Harlingen and in direct contact via social media.

4.3. Energy efficiency

Renewable energy still is a very important topic to PoH when it comes to creating a sustainable future. PoH is committed to cooperate in its port to jointly tackle the energy transition. Below some examples of how PoH is tackling the energy transition are described.



A ship charging using shore power. Photo: Joachim de Ruijter

On shore power

Ships often need to keep certain systems running while in port. In the port of Harlingen, shore power, derived from a sustainable source such as solar and wind energy, can be used in several places.

The target in the previous report was for 20% more use of shore power compared to 2021. But the increase appears to be less than 20%. Still, the intended goal can still be considered achieved, albeit in a different way. In the past two years, the cost of energy and gas has risen dramatically. As a result, people have become much more energy conscious and try to save where possible. A second reason that the use of shore power has not increased more is because until recently, the cost of power for a group of users was paid collectively. Since the implementation of a new payment system where users pay for their own consumption, people have become much more conscious of their own consumption. The new facilities are equipped with a payment system, based on the actual usage of power. The ship needs to activate the system through an app before it can make use of the shore power supply. When disconnecting, the system automatically closes the shore power supply and bills the amount of power used by the ship. With this system, the vessel owners get a better insight in their usage and it promotes to reduce the use of energy when at berth

Hydrogen generator

Now that LNG has proved not to be as sustainable a fuel as thought after all, attention is shifting to hydrogen (H₂), as a potentially more sustainable fuel. As mentioned in the previous report, a hydrogen generator will be tested in the port of Harlingen, among other places. The original plan was for this generator to be ready by 2023. However, construction has been delayed. The generator is now expected to be ready for use in September 2024.

Energy consumption/cleaner energy

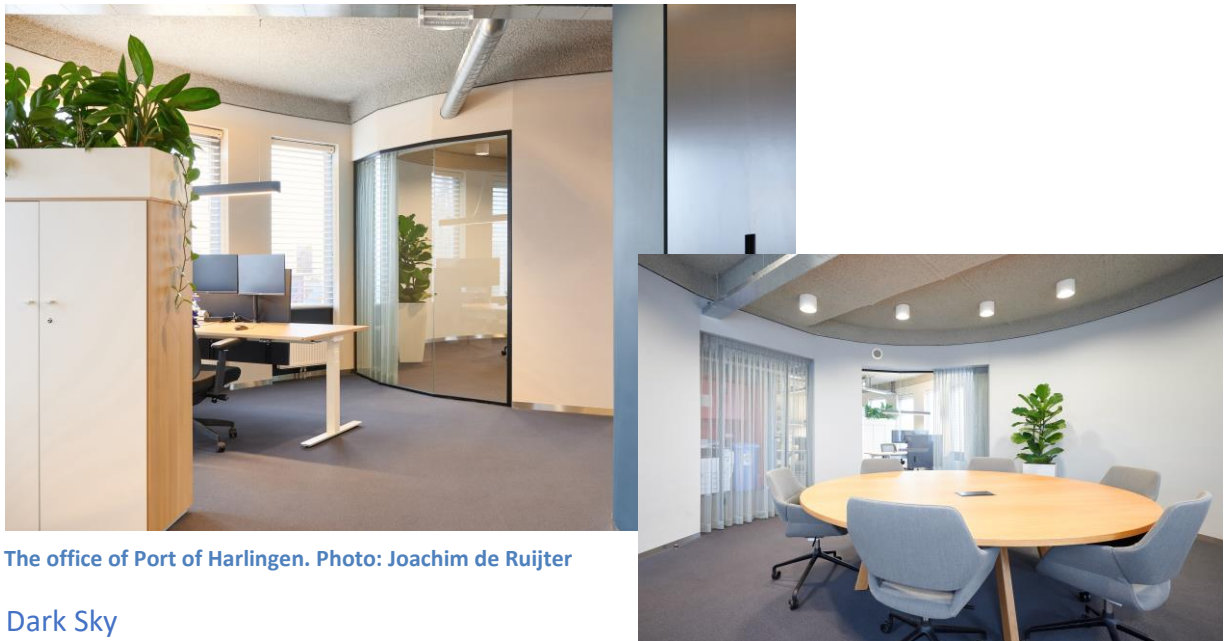
PoH is committed to 100% green energy. PoH does this by purchasing certificates for green gas, solar and wind energy, among other things. A new energy contract was signed in 2024. With this, PoH now uses locally generated energy that covers her total consumption.

Solar panels on the building of “Urk Fish Auction”

Placing solar panels on the roof of "Urk Fish Auction", as mentioned as an intention in the previous report, has not yet succeeded. A feasibility study is currently being carried out on whether it is possible to install solar panels on the roof. This study should be completed by 2024.

Renovations of office building

PoH's office was recently renovated. One of the goals of the renovation was to reduce energy consumption by 20% by installing better insulation and LED lighting, among other things. Work is also underway to optimise the heating system, something that proved less straightforward than initially thought.



The office of Port of Harlingen. Photo: Joachim de Ruijter

Dark Sky

Light pollution is the human-made alteration of outdoor light levels from those occurring naturally. Light pollution disrupts wildlife, impacts human health, wastes money and energy, contributes to climate change, and blocks view of the universe. Following responsible lighting principles is one of the ways light pollution can be solved.

By directing the lighting on the quays of in Harlingen harbour downwards instead of in all directions, light pollution from the harbour will be significantly reduced. The plan is to replace lighting in the industrial port with new lighting that takes this dark sky principle into account. On the fishery piers, all conventional lighting has now been replaced by LED lighting.

Cleaner fuels

PoH has taken the following measures to reduce the use of fossil fuels in the port of Harlingen.

One of PoH's service cars has now been replaced by an electric car. There are plans to replace the second service car with an electric one as well. Although there are certainly disadvantages to producing these electric cars, PoH sees the switch to electric means of transport as a step towards a more sustainable society. Moreover, by investing in electric means of transport now, PoH is contributing to the further development of more sustainable transport.



One of the LNG ships of Doeksen. Source: Doeksen

Since the writing of the previous report, PoH has succeeded in obtaining a licence for truck-to-ship bunkering of LNG at three locations in the industrial port, providing a more sustainable alternative to fossil fuels. From 1 March 2024, the contract for the construction of a new sustainable fuel power plant will be issued. This new fuel power plant will produce gases that meet European requirements for sustainable fuels, giving port users easy access to a sustainable alternative for their fuels. This sustainable fuel power plant will be built on the old gas extraction site.

Green award

Green Awards is an incentive and certification programme that supports sustainable and safe shipping. Ships that meet the requirements for the Green Award receive discounts on port and quayside fees from PoH. There are plans in the future to also give a discount on the waste fee that ships have to pay on entry. Talks on this are ongoing with other Dutch ports, so that ships in the Netherlands face a level playing field.

4.4. Dredging

The port of Harlingen lies on the Wadden Sea, a vulnerable area of great importance for Europe's ecology. However, the Wadden Sea is very shallow and shipping channels are constantly silting up. To keep the port accessible, constant dredging is needed. Every year, an average of 1 million cubic metres of silt is removed from the port. However, dredging has a negative impact on nature. It is especially in this issue that ecology and economy threaten to be mutually exclusive. To protect the interests of nature, consultations are taking place with all stakeholders to arrive at an area-specific approach. So, this is not so much an action point of PoH, but of all stakeholders together. This is the only way to safeguard the interests of both ecology and economy.

In 2017 and 2018, less silt was dredged because at that time, work was done using a silt dump that was further away from the fairway, making the fairways less likely to re-silt. Due to new legislation surrounding the Wadden Sea, this dumping site can no longer be used.

Alternative application

PoH participates in the "Slib op veen" (Sludge on Peat) project. In this project, parties excavating land are linked to parties in need of land. This creates a circular system. As a result, less soil needs to be excavated, emissions are reduced and both parties save money.

4.5. Water quality

Water quality in the port is affected by many aspects, such as waste, noise, oil spills, etc. In the most ideal situation, the port's waters are not only clean but also capable of supporting a biodiverse ecosystem.

Water quality is an issue in all ports. Therefore, a study will soon start in some Dutch ports on water quality in ports and how it can be improved. PoH is following those developments with attention.

This topic is expected to gain importance in the coming years, as is soil quality in ports. Many port basin bottoms appear to be contaminated with chemicals.

Amount of oil spills

	2017	2018	2019	2020	2021	2022	2023
Oil Spills	18	24	25	21	18	6	9

Table 3: oil spills 2017 - 2023

The number of oil spills in 2022 and 2023 was significantly lower than in previous years. The new regulations mentioned in the previous report are proving to be effective. Although the goal was to have no oil spills at all, this has yet to prove feasible in practice. Nevertheless, this remains the goal being pursued: 0 oil spills!

Currently, Rijkswaterstaat is the organisation responsible for water quality in the port. This organisation measures water quality and takes action in case of an oil spill. Once an oil spill is discovered, Rijkswaterstaat is contacted who then orders the company that will clean up the oil spill. To prevent the spill from spreading throughout the port, it also happens that PoH itself directly contacts BDS, the company in the port that specialises in cleaning up oil spills. BDS places screens in the water that prevent the oil from spreading further, while draining the surface water within these fields.



Oil spill at one of the quays. Photo: Port Authority

In the future, PoH itself will be able to act even faster. The new vehicle PoH plans to order will be equipped with a first response spill kit so that in case of an oil spill, immediate action can be taken to prevent further damage.

Wastewater collection

Under new European laws on wastewater discharge, passenger ships are no longer allowed to discharge their wastewater into the inland waters. Instead, this waste water must be stored in a special tank or cleaned in a filtration system before it is discharged. To allow these passenger ships to discharge their wastewater in port, ports must be equipped with a wastewater facility that can discharge this wastewater to the sewerage system. Currently, PoH has realised 4 connection. More connections are being worked on. The goal is to provide another 45 regular berths for traditional sailing ships with a shore connection to dispose wastewater.

4.6. Relationship with local community

Involvement stakeholders

Harlingen as a community is strongly committed to the port. The port is a source of direct and indirect employment in the fishing related sectors, tourism & recreation-, industry-, and shipping-sectors. These sectors form the economic backbone of Harlingen, and are important to the broader Fryslân region. Corporate social responsibility is not possible without cooperation with local companies and involving the local community in activities in the port area. Therefore, there is much and regular contact with local residents and users of the port and companies.

For the purpose of the new business plan, PoH discussed the topics of sustainability and environmental management extensively with all leading port companies and stakeholders. The companies were asked what they consider important and which topics they themselves will be working on in the coming years. They were also asked what role they expect PoH to play in this. The outcomes of the interviews with companies and stakeholders were taken into account in the new business plan 2024 - 2028.



Harlingen. The port is in the top right. Photo: Joachim de Ruijter

Communication on environmental policy

Our vision of sustainability at the port is communicated through publication on the site, among other things. Apart from a general outline of plans to be the most sustainable port in the Northern Netherlands by 2035, PoH publishes on its website the PERS report. A Dutch translation of the English version of the PERS report is posted on the site so that interested parties can get a better understanding of the plans for the future.

Local environmental projects

At the time of writing, the Skoônseun initiative has been launched in Harlingen. This project uses a newly designed vessel called the Trash Skimmer, which is used to clean rivers, harbours and other shallow waters by sucking waste from the water surface. This project will be further detailed in the best practices section.

PoH is actively participating in a project by the municipality of Harlingen to redesign the Wadden promenade, the area adjacent to the Wadden Sea, more sustainably together with a landscape architect with a strong focus on natural values and the connection to the Wadden Sea.

Internship

From August, PoH employed an intern from the Van Hall Larenstein school in Leeuwarden for 10 weeks. This intern wrote a report on biodiversity in the port and investigated how to improve biodiversity on land in the port area. The results of his work have been incorporated into the report 'Analysis of biodiversity in and around Port of Harlingen'.



Four of the locations where the intern researched biodiversity. Photos: Stein Boekema.

4.7. Review 2022-2024

What are the results of the action points from the previous PERS report?

- Most targets have been achieved.
- There is greater understanding of feasibility of targets.
- Energy efficiency in the office has improved, but could be further improved, especially in the heat supply.
- PoH's operations have become more sustainable.
- The industrial port has become cleaner.
- Although lighting fixtures have not yet been adapted everywhere in the port, the basis for improvements in port lighting has been laid. There is less light pollution from the port.
- Measures to reduce oil spills have proven very effective, with the number of oil spills significantly reduced.
- The company visits provided a lot of information on what the port companies expect from PoH and where improvements can be made.

5. Objectives PERS 2024-2026

5.1. Environmental Performance indicators

Some objectives from the previous PERS have remained, because the targets set in advance were not (entirely) achieved. Obviously, work will continue on achieving these goals in the coming years. Table 4 shows the environmental aspects PoH intends to focus on over the next two years, followed by the chosen indicators, targets and actions. The choice of these environmental aspects was driven by the extent to which PoH has an impact on improving these aspects, and the extent to which these topics benefit sustainability in the port as a whole.

Environmental aspects	Goals	Action(s)
Dredging	Reduce volume dredged for Vaargeul Boontjes	Participate in pilot to monitor effects on environmental, nautical and economic impact when reducing dredged channel to a less wide and deep profile.
	Protection of Wadden Sea Area	Participate in the project Wadden Sea Area Agenda 2050
Energy efficiency	Hours of shore power usage	Improve possibilities of use, technical and administrative Providing information to users Contracting with suppliers Provide a large power bank for electric engines to charge
	Use of clean fuel	LNG bunker Certificate
	Sustainable energy cluster	Attracting companies involved in renewable energy products Encourage and facilitate business establishment Realising good facilities for companies
Waste	Clean harbour	Good collection facilities Adequate information to target groups Agreements with collection parties and municipality on optimal collection practice
	Optimising implementation of the HAP	Annual review Sharp monitoring Regular consultation with stakeholders Resolving exceptional cases
Relationship with local community	Multiple, joint projects aimed at making the port more sustainable	Sustainable approach to the Fairway Boontjes Adapting the Wadden promenade
	Awareness	Information campaigns
Light pollution	Improve smart lighting	Observing detection technology to save energy
	Led + Dark sky	Further implement Led lighting + Dark Sky
Water quality	Algae growth	Look into algae growth cause by disposal of cooling water.
	Improve insight into water quality within the port.	Contact Rijkswaterstaat about water quality measurements.
	Preventing pollution in the water	Prevent waste from ending up in the waters in the port

Table 4: overview of indicators and actions 2024-2026

5.1. Dredging

The balance between ecology and economy is very important for the port of Harlingen. As the Wadden Sea is very shallow and its seafloor is made up of very loose soil, constant dredging is required to maintain fairways. These fairways are very important for the port of Harlingen. However, dredging has a negative effect on the Wadden Sea's ecology, as dredging leaves a lot of soil in the water, blocking sunlight from reaching the seafloor. The balance between enough dredging, but keeping the impact on the ecosystem as low as possible, is therefore very important.

Ecosystem-based approach

This balance between ecology and economy is what plays the main role in the Ecosystem-based approach. Which is the approach adapted by dredging operations in the Wadden Sea. This approach seeks to integrate nature into dredging operations. The main advantage is that this has a lot less impact on the local ecosystem.

Vaargeul Boontjes (Boontjes Fairway)

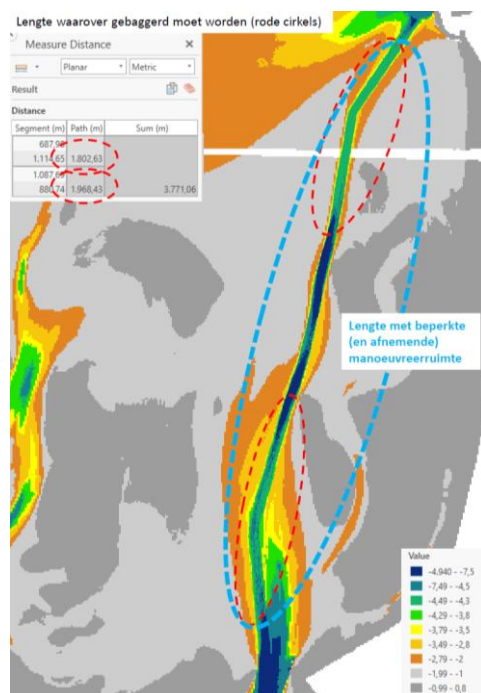


Figure 4: Map of Boontjes Fairway, with the areas encircled in red being the places where dredging is required.

Boontjes Fairway is a fairway that connects the port of Harlingen with the port of Amsterdam, Rotterdam and other ports surrounding the IJsselmeer via the locks at Kornwerderzand. In 2013 the agreement has been made between de state and the province of Friesland to increase the depth of the fairway from NAP -2,8m to -3,8m. However, it turned out the maintenance for this depth was more extensive than initially expected. An analysis into the economic, ecological and morphological impact would be performed to provide further insight. This was followed by a meeting at PoH on March 2024. This meeting discussed the depth and width of the fairway, as well as the safety and dumping locations. Main goals for this meeting was to start a pilot to monitor the effects on dredging volume, passage timeframes and nautical safety when changing the minimum depth and width of the channel. Investigations take place which dept and width is realistic, how to simulate and monitor this and how to implement this in the existing dredging contract. These preparations are aimed to be ready in 2024, so the pilot can take place in 2025 and 2026.

As for dumping locations, currently alternatives are being looked into, not just looking for the cheapest option, but considering ecological and morphological impacts, as well as the impact on the fairway itself.

Wadden Sea Area Agenda 2050

Wadden Sea Area Agenda 2050 is developed in order to plan out the long-term, collective perspective for sensitive natural areas like the Wadden Sea. It describes collective goals and the management and principles needed to achieve these goals. For this chapter, the main subject playing a role is the maximum amount that is allowed to be dredged. This can have consequences for the

middle- to long term accessibility of the port, as the fairways leading to the port need to be dredged to maintain the minimum depth for large ships.

The governance of the Region agenda is made up of three pillars:

1. Bestuurlijk Overleg Waddengebied (Wadden Region Administrative Consultation);
2. Omgevingsberaad Waddengebied (Environmental Council Wadden Region);
3. Beheerautoriteit Wadden Sea (Wadden Sea Management Authority).

As a port on the shore of the Wadden Sea, PoH takes part in the Omgevingsberaad Waddengebied. Furthermore, this agenda also includes Germany and Denmark, as the Wadden Sea stretches the coast of these three nations. PoH actively follows the development of this agenda through the Programmteam Waddenzeehavens (Wadden Sea Ports Programme Team) and participation in the Raad van Advies Waddenzeehavens (Wadden Sea Ports Advisory Board).

5.2. Energy efficiency

Energy efficiency and reducing CO2 emissions are also prominent on the agenda for the next two years. PoH wants to help reduce energy consumption through information campaigns, adjusting lighting where it has not yet been done, optimising shore power and promoting the use of clean(er) fuel.

Shore power

PoH expects that with the installation of more shore power connections, the use of shore power will increase. Over the next two years, the number of hours shore power is used by vessels will be monitored to gain more insight into any bottlenecks in the use of shore power. It will map how the use of shore power relates to the number of ships calling at the port. Contracts with energy suppliers will also be reviewed to make shore power an attractive alternative for everyone.

Clean fuel

A pilot for shore power based on hydrogen is starting in 2024. Making the power for shore power cleaner and much more sustainable, this system is also able to handle ships with more capacity.

Hydrogen based power generators

More and more ships are running on electricity. The batteries of those ships need to be able to be charged in port. This requires ports to have facilities to charge those ships' batteries. Harlingen's infrastructure is not currently up to such demand. To still be able to meet the demand for charging facilities, there is a hydrogen generator in Harlingen port. This generator can be used to charge the batteries of electrically powered ships.

Dark sky

The lighting on Korte Lijnbaankade will be replaced with Dark sky lighting over the next few years. Once the lighting is connected, its effect will be monitored. If the results are good, the lighting in the other parts of the port will be addressed.

Renewable energy cluster

Harlingen port is divided into several clusters, such as fishing, logistics, ferry services, et cetera. PoH is currently developing a new cluster focusing on renewable energy. The renewable fuel plant mentioned earlier in this report will be built in this cluster.

5.3. Waste

Waste remains one of the most prominent issues in the shipping industry and is therefore still considered an important issue to address within the port of Harlingen.

Shipping waste

With the new EU directive coming into force, the approach to collection and treatment of ship-generated waste is well established in the port. Although occasional new teething problems come to light, it is enough to keep a finger on the pulse as far as this section is concerned.

Targets have been set for fisheries. However, fishers regularly do not dispose of their waste in the appropriate bin. An information campaign with start in 2024, during which PoH will cooperate with fishermen to the collection of waste and thus reduce collection costs. A special focus of this campaign is the collection of clean fishing nets, as clean nets often end up as waste. not only does this raise the costs of waste collection unnecessarily, but there may also be opportunities to reuse the clean nets in some way.

Pleasure boating and the traditional sailing fleet

Over the next two years, work will continue on the agreements with the traditional sailing fleet in particular. Through awareness campaigns and direct consultation with the sector, work will be done to optimise waste collection, creating a clean and attractive looking inner harbour.

Floating waste and litter

With the Bubble Barrier coming into operation, the flow of waste from inland waters is expected to be reduced considerably. In the coming years, the results will be closely monitored with regard to the total waste flow in the port.

In addition, where necessary, discussions will be held with port companies on how to jointly work towards a clean port.



Floating waste. Photo: Port Authority

Reuse of waste

To further improve the port's sustainability, PoH is looking for ways to use materials normally considered waste as possible building materials. This circular approach means less CO₂ is produced for both the disposal of waste and for making new building materials.

EU regulations on circularity are being drafted. These regulations enforce new buildings to use a yet-to-be-determined amount of recycled materials. Currently, the construction of building uses up half of the materials mined in the EU. There is still much to be gained in this area.

5.4. Relationship with local community

PoH is just one of the players in the port of Harlingen. Making the port truly more sustainable sometimes requires a joint approach to problems. The saying is not for nothing: On your own you can go faster, but together you go further! On top of that, in a cross-sectoral approach, the interests of all parties involved can be balanced. These partnerships involve parties focused on the same issue, but also area-oriented projects where the region is central. In an area-oriented approach, each party works from its own role to contribute to achieving previously agreed sustainable goals.

Redesigning the Waddenpromenade Harlingen

This project aims to recreate the Waddenpromenade in Harlingen from a stone and concrete, utilitarian looking port to a much greener and attractive looking port. In doing so, the promenade and thus the port, will form a much better transition between the Wadden sea and Harlingen. This will turn it into a much more attractive area for visitor to Harlingen or those passing through on their way to the Wadden islands. This project aims for the following results:

1. A saline botanical garden, consisting of native flora (from woody to herbaceous plantings) characteristic for the Wadden coastal zone (such as sea milkwort, English scurvygrass, Broomrape and Sea aster);
2. A water collection tank, for the capture and reuse of rainwater, including installation;
3. The return of the old, historical wall;
4. A safe layout for the accessibility to the ferry port for pedestrians, cyclists and motorised traffic.
5. An educative experience- pedestrian route with (historical) information on the Wadden sea, the city and the region.
6. Pavilion "Wad en Stad", open for the public, transparent and inviting. The roofs are decorated with plants appropriate to the Wadden climate, providing a beautiful view of the harbour, the city and the Wadden Sea.

5.5. Water quality

In the coming years, PoH aims to gain a better understanding of the current state of the water in the port and the main factors affecting it. The next step will be to improve water quality where possible. The following is a list of actions PoH will implement in the coming years

Algae growth

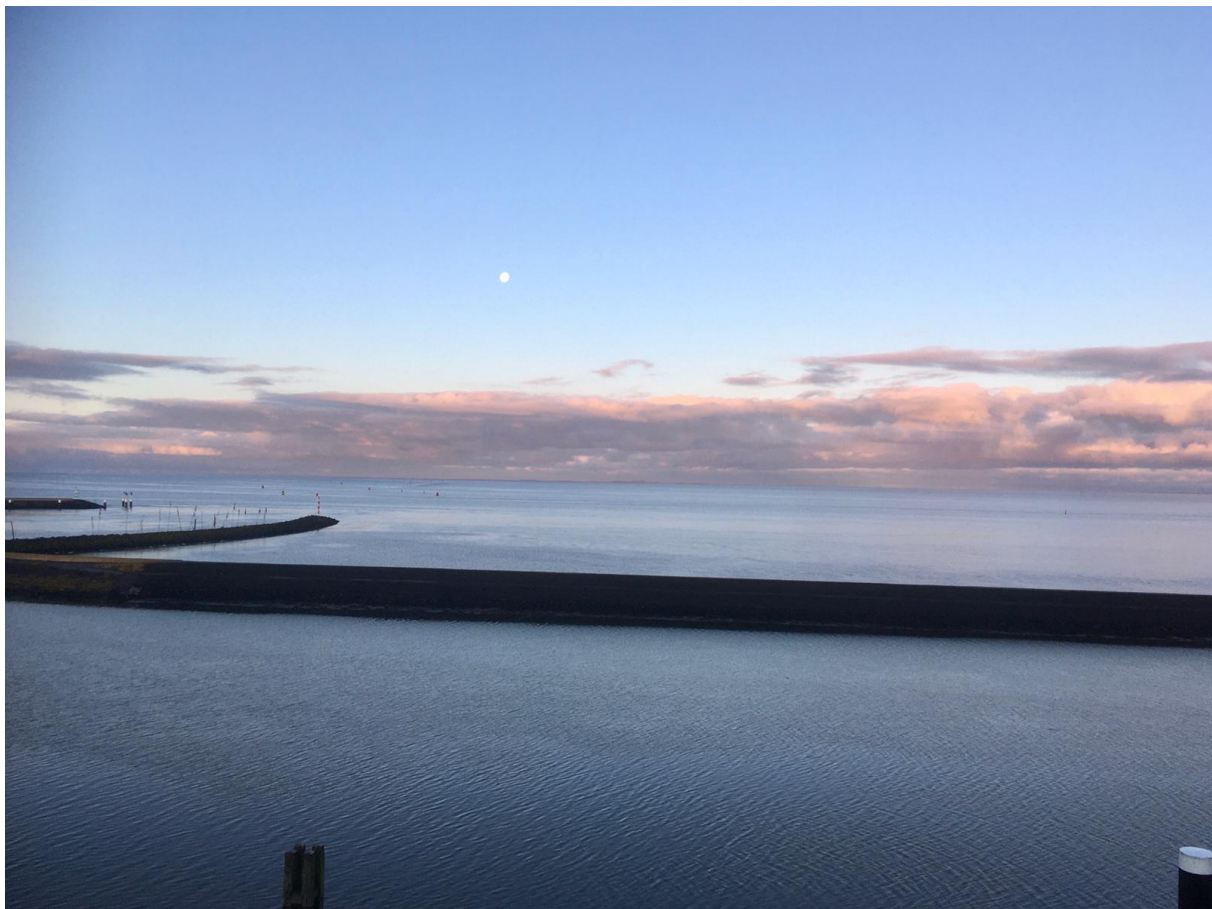
Water that is pumped up and then discharged again becomes warm because it is used for cooling. These temperature differences cause algae growth. In addition, pumping adds air to the water, which also promotes algae growth.

The biggest problem with these algae is the foam layer they form. The algae foam affects the paint of the ships (and cars), requiring more maintenance.

It is unclear whether this algae growth causes problems for the local ecosystem. In fact, it attracts many organisms that feed on these algae, which in turn attracts gulls and other animals that prey on these animals that eat these algae. It is unclear if this algae growth causes any issues for the local ecosystem, in fact, it attracts a lot of organisms which feed on these algae, which in turn, attracts gulls and other animals which prey on these animals that eat these algae. The main issues from these algae is the foam layer they create, this is harmful for the paint layer on ships and cars, which means these vehicles need more maintenance, which in turn, increase the pollution caused by this maintenance.

Improve insight into water quality within the port

To set good targets for water quality, a better understanding of current water quality is needed. PoH is consulting with Rijkswaterstaat and the other Dutch ports on this to get a good picture of the current status quo and the desired water quality.



The Wadden Sea as seen from PoH's office. Photo: Port Authority.

6. Responsibilities and resources

In this chapter, the internal organisation of PoH will be described. The purpose is to give insight into the organisation of PoH. Further clarifying the ability of its management to achieve the objectives stated in the policy statement. Each environmental responsibility is linked to a position within the organisation and it shows the responsibility of this position within the organisation. Finally, a description of the resources allocated specifically for port environmental management follows.

6.1. Environmental responsibilities of key personnel

The following table shows the areas for which the port authority has responsibility, and which employee, department or authority is responsible for the following functions.

Environmental Responsibilities of Key Personnel*		
Area	Port of Harlingen	Others
Port Operations (Dredging)	Maintenance manager	
Port Operations (Navigation)	Harbour Master	Port Authority
Port Operations (Shipping)	Harbour Master	Port Authority
Port Operations (Terminals)	Harbour Master	Private firms
Cargo Handling Operations	-	Private firms
Jetty/Wharf Management	-	Private firms
Site Management	Harbour Master	Port Authority
Strategic Planning	CEO	
Supplies acquisition	CEO / account manager	
Operator Licensing/Permit	Harbour Master	Port Authority Province / Ministries
Quality Management	CEO	
On site Contractor Management	-	Private firms
On site Conservation	-	Private firms
Emergency Planning	Harbour Master	Port Authority / Regional Emergency Services
Waste Management	Harbour Master	Port Authority (collection) Ministries (storage, transportation, disposal)
Marina/ Slipway management	Maintenance manager	

Environmental Management	CEO / Strategic manager	
Environmental Data Management	Strategic manager	
Soil pollution assessment	Maintenance manager	
Air Quality monitoring		Environmental officer Municipality
Water Quality monitoring		Environmental inspectors Rijkswaterstaat/ Wetterskip Fryslân
Vehicular Management of Terminal traffic	Maintenance manager/ Port Authority	NV Port of Harlingen
Communication with stakeholders about environmental subjects	CEO/Strategic manager/maintenance manager	
* Key personnel are employees responsible for activities that may cause environmental impacts if not properly managed or if control is lost. ** One person may have multiple responsibilities		

Table 5: Internal/external environmental responsibilities

6.2. External responsibilities

The performance of environmental tasks also involves external parties. Table 6 shows which organisations/ parties are involved and what their responsibilities are.

Organisation	Responsibilities
NV Port of Harlingen	Develop, operate and manage Harlingen harbours maintain records and report to municipality and province etc. Nautical management of port (competent authority for shipping) Technical management (dredging) Complying with governmental laws and regulations Drafting visions about the port and environmental management Permits for collection of shipping waste (<i>Port Reception Facilities</i>). Collecting complaints
Municipality of Harlingen	Local Government Noise zone Enforcement of business licence Drafting spatial planning Translation and implementation of national and regional policy into local policy Various tasks have been outsourced to a regional partnership: Fryske Utfieringstsjinst Miljeu en Omjouwing (FUMO).
Stevedoring companies	Ensure correct loading and unloading of ships

Organisation	Responsibilities
Wetterskip Fryslân	Regional water management authority Quality control inland waters Water barriers Management of regional water systems Quality of waste water
Rijkswaterstaat	National Water management Authority Manager of main water system and quality control of open waters Licencing authority for some ground water withdrawals and infiltrations
Province Fryslân (Regional Government)	Competent authority for parts of the <i>wet environmental management for various companies</i> Translation and implementation of national policy to regional policy supervision of water boards
National government	Ensures national policy context and strategic goals for water management Implement European policies and regulations Issues permits to waste collection companies Oversees other government organisations involved in water and port management
Waste collectors	Port reception facilities These companies are licenced to collect waste and are responsible for safe and efficient waste collection at the port

Table 6. External responsibilities

6.3. Resources

With the corporatisation of the port of Harlingen, PoH is responsible for the sustainable development of and in the port of Harlingen. In order to understand PoH's environmental performance, targets have been set and actions taken.

Job functions

PoH is a compact organisation. Almost all employees have a role in achieving the sustainability objectives. Some functions are listed below. Responsibilities have also been placed with external parties.

- The CEO is responsible for sustainable objectives at the strategic level, and he has ultimate responsibility for all tasks.
- The strategic manager ensures the embedding of sustainability in strategic policy documents.
- The maintenance manager ensures the implementation of sustainability in daily operations and participates in sustainable projects.
- The harbour master is responsible for performing mandated tasks in accordance with environmental legislation.



Traffic centre. Photo: Betty de Keizer

Collaboration

PoH is working with knowledge institutes to strengthen and improve the quality of its environmental management system. In addition, PoH participates in the Wadden Sea Ports initiative in which knowledge about relevant issues such as LNG, financing possibilities and environmental management systems is shared.

Compliance with environmental legislation

Pro-active

If changes in (activities of) the port area can have an impact on the environment, knowledge is obtained from various parties in order to determine the best course of action within the framework of current laws and regulations. In such cases there is direct contact with the Environmental Department, the Department of Public Works, external lawyers and consultants.

Active

To keep employees up-to-date on current environmental laws and regulations, this topic is discussed during work meetings. If changes occur between work meetings that need to be communicated immediately, the necessary information is distributed to employees by e-mail. Partly because of the close interaction between the partners (Rijkswaterstaat, lawyers, consulting firms, working groups), a rapid exchange of knowledge is guaranteed.

In addition, PoH participates in the annual network day of all Wadden Sea inspection services (SIW) in which relevant topics such as nature, environment and shipping are discussed. In order to give all employees the opportunity to expand and maintain their knowledge and network, participants are changed annually.

Passive

Regular visits to various websites, such as shipping news, and government announcements, to keep abreast of changes in relevant laws and regulations.

Budgets

A specific budget item has been allocated for dredging activities and sustainability objectives. Noise zoning and soil protection are performed by the FUMO and are financed from the municipality's general budget.

6.4. Organogram

Below (Figure 1) is the organisational structure of PoH. Within this structure, 18 FTE is permanently employed. To further strengthen the organisation, external experts are hired in.

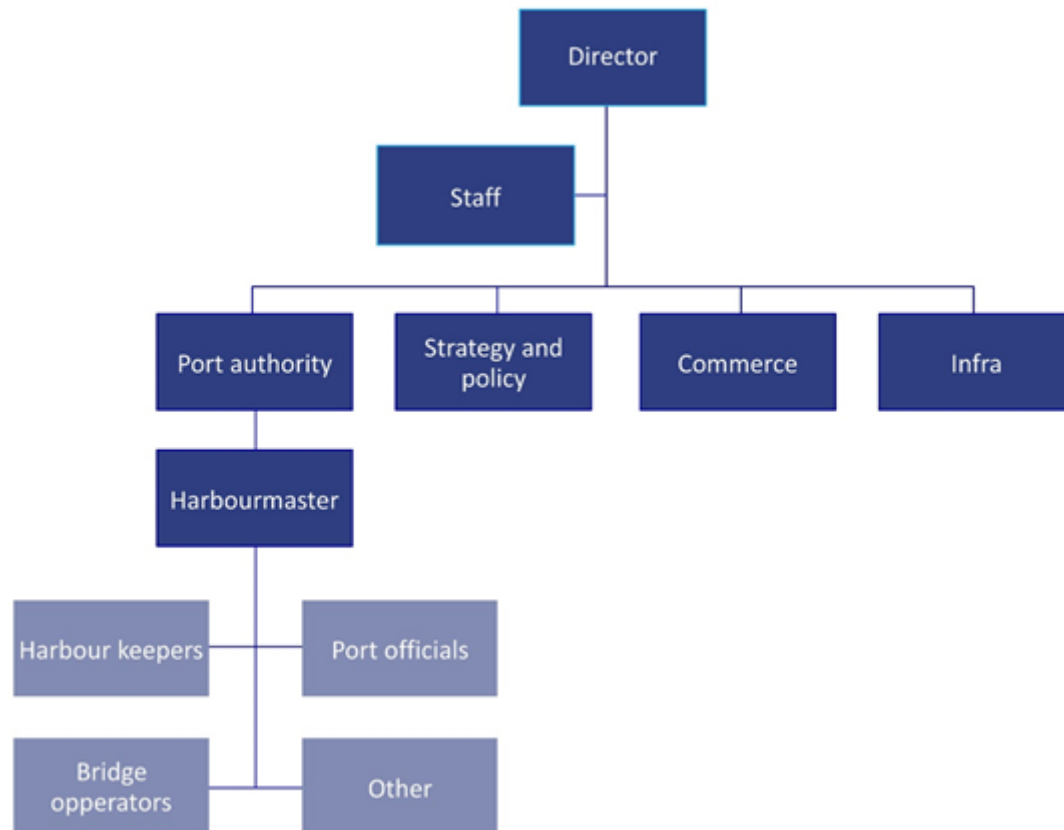


Figure 5: Organisation structure of NV Port of Harlingen

7. Best practices

Port of Harlingen, The Netherlands

Bubble Barrier

Contact person: B. de Keizer
Position: Program Manager Sustainability
Email: b.dekeizer@portofharlingen.nl

Environmental issue:
 Drift waste

Environmental Aspects involved
 Water quality, waste management

Preventing plastic and other waste from entering the Wadden Sea

On behalf of the municipality of Harlingen, The Great Bubble Barrier will install a bubble screen in the Van Harinxmakanaal. This bubble barrier prevents plastic waste from flowing into the Wadden Sea via the Van Harinxmakanaal.

Stakeholders involved
 Great Bubble Barrier, Municipality of Harlingen, Port of Harlingen and others

Links:
<https://www.harlingen.nl/Bubblebarrier>



Bubble barrier. Source: Plastic Soup Foundation

Port of Harlingen, The Netherlands

SkoônSeun

Contact person: B. de Keizer
Position: Program Manager Sustainability
Email: b.dekeizer@portofharlingen.nl

Environmental issue:

Drift waste

Environmental Aspects involved

Water quality, Ship waste

Skoônseun

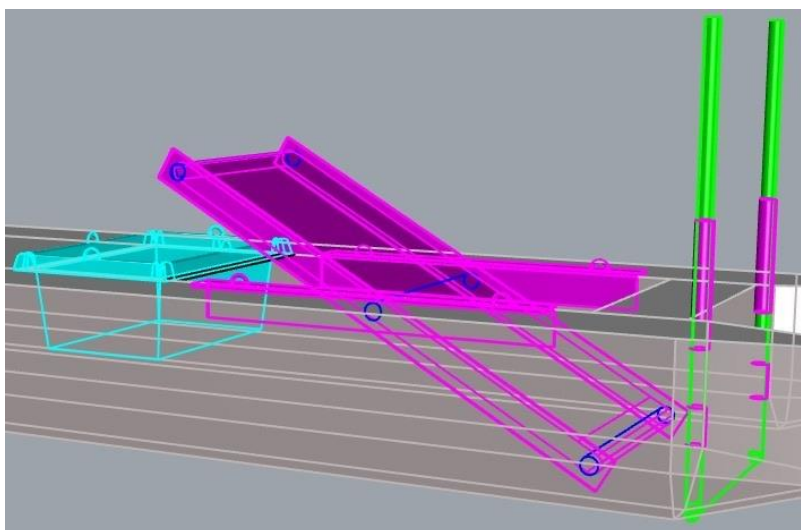
Skoônseun is a project that aims to create a so-called trash skimmer, which is a ship that removes waste from the water within the port and rivers. The project also aims to improve awareness and behaviour about the disposal of plastic waste.

Stakeholders involved

Port of Harlingen, Municipality of Harlingen, Skoônseun and others

Links:

<https://skoonseun.nl/project-skoonseun/>



Concept for the Trashskimmer. Source: skoônseun.

Port of Harlingen, The Netherlands

Clean quays

Contact person: B. de Keizer
Position: Program Manager Sustainability
Email: b.dekeizer@portofharlingen.nl

Environmental issue:

Clean port, free of waste

Environmental Aspects involved

Waste management

Clean quays

PoH has started one-on-one discussions with port companies to work together to prevent waste in port both in the water and on shore.

Stakeholders involved

Port of Harlingen, port companies

Port of Harlingen, The Netherlands

Green Award Discount

Contact person: B. de Keizer
Position: Program Manager Sustainability
Email: b.dekeizer@portofharlingen.nl

Environmental issue:

Promoting and stimulating clean shipping

Environmental Aspects involved

Clean shipping, including crew behaviour

Green awards discount

Green Award is a seal of approval for ships that meet high safety and environmental standards. Ships holding a Green Award receive a 5% discount on the charged port and quayside fees in the port of Harlingen. In the future, the aim is to be able to give Green Award ships a discount on their waste fees as well. This plan is being further explored in close coordination with other Dutch ports.

Stakeholders involved

Port of Harlingen, sea shipping.

Links:

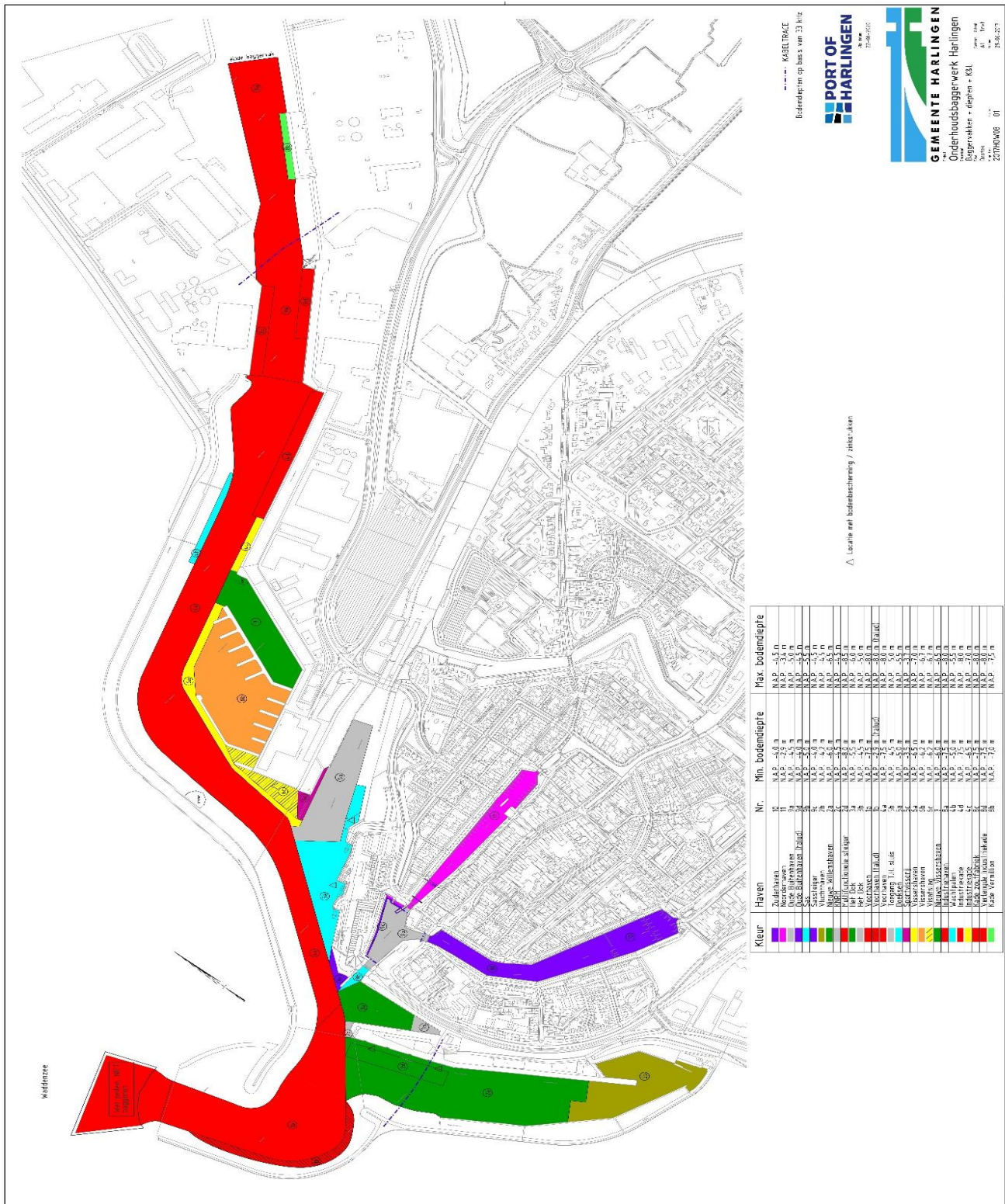
<https://www.greenaward.org/>



Source: Green Awards

8. Annexes

I. Depth Harlingen harbours



II. Laws and regulations

Please note was made not to translate Dutch laws and regulations.

Issue	Laws and regulations
Waste	International: MARPOL 73/78 European: Richtlijn 2019-883 Richtlijn 2008/98 Richtlijn 2019/16 National: Omgevingswet Wet milieubeheer - Besluit activiteiten leefomgeving besluit inzamelen afvalstoffen - Regeling inzamelaars, vervoerders, handelaars en bemiddelaars van afvalstoffen - Regeling melden bedrijfsafvalstoffen en gevaarlijke stoffen - Landelijk afvalbeheerplan 3 - Publicatiereeks gevaarlijke stoffen Wet voorkoming verontreiniging door schepen - Besluit voorkoming verontreiniging door schepen - Regeling voorkoming verontreiniging door schepen - Besluit havenontvangstvoorzieningen - Besluit meldingsformaliteiten en gegevensverwerking scheepvaart - Scheepvaartverkeerswet - Regeling melding en communicatie scheepvaart Europese Kaderrichtlijn maritieme strategie Provincial and local: Omgevingsverordening Fryslân 2022Havenverordening Harlingen Others: Scheepvaartreglement territoriale zee Wet economische delicten
Soil	Omgevingswet, Besluit activiteiten leefomgeving Nederlandse richtlijn bodembescherming
Air/emissions	MarPol 73/78 OmgevingswetBesluit brandstoffen luchtverontreiniging → uitvoering richtlijn 1992/32/EG betr zwavelgehalte van brandstoffen Havenverordening Harlingen 2020 EU richtlijn 2005/33/EC scheepvaart emissies. EIA- energie investeringsaftrek →fiscaal voordeel voor energiezuinige technieken

Issue	Laws and regulations
Water	Wet milieubeheer Omgevingswet Besluit kwaliteit leefomgeving Waterwet Grondwaterrichtlijn (omgevingsvisie) Wet bestrijding maritieme ongevallen Ballastwaterverdrag Omgevingsplan
Noise	Omgevingswet Gebruiksvoorschriften haven Ik weet niet wat hiermee wordt bedoeld? Omgevingsplan
Nature	Omgevingswet Bkl Internationale afspraken en Europese richtlijnen Waddenzee: - Verdrag van Bonn - Ramsar verdrag - Particularly sensitive Area - Werelderfgoed - Afspraken IMO (internationale Maritieme Organisatie) - Afspraken OSPAR (Oslo Parijs Conventie)
Safety	Scheepvaartverkeerswet Wet vervoer gevaarlijke stoffen Wet bestrijding maritieme ongevallen Wet veiligheidsregio's Havenbeveiligingswet Omgevingsplan Omgevingswet Besluit activiteiten leefomgeving
Scheepsvaart	SOLAS Verdrag Schepenwet Binnenvaartwet Scheepvaartverkeerwet Wet buitenlandse schepen Wet havenstaatcontrole Wet laden en lossen zeeschepen Havenbeveiligingswet

Table 7: Laws and regulations.

III. Environmental aspects

Port Authority						
Ref. Nr.	Aspects (sub) department, tenant, operators)	Impact on	Responsible / organisation	Applicable legislation	Legal requirements	Control measures
P1	Shipping and Navigation	Emissions to air, Noise, Discharges to water	Harlingen Port Authority RWS	Marpol '73/'78 Waterwet EU richtlijn 2005/33/EC Scheepvaart emissies SECA. Green Deal Rijn en Wadden	Guidance and/or safe passage	Executor, Reporting obligation
P2	Emergency Situations	Emissions to air, Discharges to water, emissions to soil, emissions to sediments, port surroundings	Harlingen Port Authority RWS	Port Bye Laws 2020 Scheepvaart-verkeerswet Wet bestrijding maritieme ongevallen Incident management Arrangements	Monitor and management of incidents with external parties	Prevention, Containment, Facilitate, Reporting obligation
P3	Safety	-	Licencee	Omgevingswet Omgevingsplan Bevi/Revi BRZO	Supervision on activities in the port area	Supervisor
P4	Administrative and Planning Activities	Mooring arrangement Under keel clearance Safety areas	Harlingen Port Authority	Port Bye Laws 2020 Besluit meldings-formaliteiten en gegevens-verwerkingen scheepvaart	Obligated to guide ships in port area when needed. Supervision on safety and use of ships and port area as a whole.	Executor, Facilitator, Supervisor
P5	Complaint and incidents	Emissions to air, discharge to water, Noise	Harlingen Port Authority, Environmental dept.	Port Bye Laws 2020 Complaints regulations PoH Incident reporting regulations	Monitor complaints and incidents.	Facilitator, Supervisor
P6	Removal of shipping waste	Discharge to water, Emission to soil, Emissions to sediment	Harlingen Port Authority, Maintenance dept.	Omgevingswet Marpol '73/'78 Haven afval plan WvVS	Facilitating waste collection points for different waste flows and dispose of waste to waste collector	Supervisor, Facilitator

P7	Ballast water discharge	Discharge to water	RWS Licencee	Omgevingswet Balastwater-verdrag	Prevention of contamination of exotic species by Ballast water due to licencee with Mariflex (Invasave)	Facilitator
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Engineering & maintenance						
Ref. Nr.	Aspects (sub) department, tenant, operators)	Impact on	Responsible person / organisation	Applicable legislation	Legal requirements	Control measures
P8	Marine engineering	Emissions to water	RWS	Waterwet Omgevingswet	n/a on NV PoH	Reporting obligation
P9	Coastal Engineering	Port surroundings, Emissions to soil, Emissions to land, resource consumption.	Harlingen Port Authority, Environmental dept., Maintenance dept.	Wet natuurbescherming Waterwet Omgevingsplan Omgevingswet	n/a on NV PoH	Supervision, Facilitator
P10	Dredging, maintenance and disposal	Discharge to water, Emissions to sediments, changes in marine ecosystems	Harlingen Port Authority, Maintenance dept., RWS	Waterwet Omgevingswet Omgevingsplan WBR (Wet beheer rijkswaterstaatswerken)	Meet regulatory requirements specified in Natura-2000 beheerplan Waddenzee- (2016-2022) (Licencee)	Supervision, Monitoring
P11	Port installations maintenance	Emissions to soil and sediment Port surroundings, Discharge to water	Harlingen Port Authority, Environmental dept., RWS	Omgevingswet Omgevingsplan Waterwet	Guaranteeing safety	Facilitate, Innovation

General port activities						
Ref. Nr.	Aspects (sub) department, tenant, operators)	Impact on	Responsible person / organisation	Applicable legislation	Legal requirements	Control measures
G12	Port based industry, Freight trucks, Forklift trucks.	Emissions to air and soil, discharges to water, noise, odour, port surroundings, safety, light pollution.	Licencee	Among others: Omgevingswet Omgevinsplan Waterwet Wet Natuurbescherming	n/a on NV PoH	Supervision, Reporting obligation

Fisheries and Aquaculture						
Ref. Nr.	Aspects (sub) department, tenant, operators)	Impact on	Responsible person / organisation	Applicable legislation	Legal requirements	Control measures
T22	Fish Auction Urk BV	(Regarding to all companies) Odeur	(Regarding to all companies) Licencee	(Regarding to all companies) Omgevingswet Port By Laws 2020	Supervision on compliance on regulations of the <i>Port Bylaw 2020</i>	Supervision, Reporting obligation, Enforce
T23	Lenger Seafoods					Supervision, Reporting obligation, Enforce
T24	The Fish Company BV					Supervision, Reporting obligation, Enforce

Ship building and repair						
Ref. Nr.	Aspects (sub) department, tenant, operators)	Impact on	Responsible person / organisation	Applicable legislation	Legal requirements	Control measures
T25	Damen Shiprepair Harlingen BV	Discharge to water Emissions to soil, air	Harlingen Port Authority, Environmental department,	Port By Laws 2020 Waterwet, Wet Natuurbescherming	n/a on NV PoH	Supervision, Reporting obligation
T26	Wierda Scheepsreparatie	Noise, air Waste production Port surroundings	RWS, FUMO, licencee	Omgevingsplan Omgevingswet	n/a on NV PoH	Supervision, Reporting obligation

T27	Wärtsilä	Noise, air Waste production Port surroundings	Wärtsilä		n/a on NV PoH	Supervision, Reporting obligation
T28	Louis Baes repairs	Noise, air Waste production	Louis Baes repairs		n/a on NV PoH	Supervision, Reporting obligation
T29	TBG Harlingen	Waste production	TBG Harlingen		n/a on NV PoH	Supervision, Reporting obligation
T30	Icon Yachts	Noise, air Waste production Port surroundings	Icon Yachts		n/a on NV PoH	Supervision, Reporting obligation
T31	FORU	Waste production, air Port surroundings	FORU		n/a on NV PoH	Supervision, Reporting obligation

Oil & Gas Handling						
Ref. Nr.	Aspects (sub) department, tenant, operators)	Impact on	Responsible person / organisation	Applicable legislation	Legal requirements	Control measures
T32	Oliehandel Klaas de Boer	Safety, air Discharge to water	Harlingen Port Authority, Environmental department, RWS Oliehandel Klaas de Boer (licencee)	Bevi.Revi BRZO, Omgevingswet Port Bye Law 2020	Licencee	Monitor, Reporting obligation, Innovation, Stimulate, Enforce
T33	Vermilion Energy Netherlands (Gas)	Safety, air Discharge to water	Harlingen Port Authority, Environmental department, Rijkswaterstaat, Vermilion Energy Netherlands (Gas)	Waterwet, Omgevingswet Omgevingsplan	n/a on NV PoH	Monitor, Stimulate, Innovation
T34	FinCo Bunker Terminal Harlingen (FBTH)	Safety, air Discharge to water	Harlingen Port Authority, Environmental department, RWS FinCo Bunker Terminal Harlingen (FBTH)	Bevi.Revi BRZO, Omgevingswet	n/a on NV PoH	Reporting obligation, Stimulate, Enforce

Stevedores, warehousing and Shipping companies

Ref. Nr.	Aspects (sub) department, tenant, operators)	Impact on	Responsible person / organisation	Applicable legislation	Legal requirements	Control measures
T35	Kustvaart Harlingen BV	(Regarding to all companies) Main impact is their shipping activities, see P1	(Regarding to all companies) Licencee	(Regarding to all companies) Port Bye Laws 2020, Wet Natuurbescherming Omgevingswet	Supervision on compliance on regulations of the <i>Port Bye Laws 2020</i>	Supervision, Reporting obligation, Enforce
T36	Nesta Shipping BV					
T37	Kuhlman Repko Shipping BV					
T38	JR Shipping BV					
T39	Wagenborg Agency					
T40	Lineage / Daalimpex Harlingen BV					

Marine services

Ref. Nr.	Aspects (sub) department, tenant, operators)	Impact on	Responsible person / organisation	Applicable legislation	Legal requirements	Control measures
T41	Tuinman sleepdiensten	Discharges to water	RWS	Omgevingswet Port Bye Laws 2020	Supervision on compliance on regulations of the <i>Port Bye Laws 2020</i>	Supervision, Reporting obligation, Enforce
T42	BDS Harlingen	Discharges to soil Discharges to water Odour	RWS, Harlingen Port Authority, Maintenance dept.	Omgevingswet Waterwet Port Bye Laws 2020	Supervision on compliance on regulations of the <i>Port Bye Laws 2020</i>	Supervision, Reporting obligation, Enforce
T43	C.I.V. Harlingen	Noise,	FUMO	Omgevingswet	n/a on NV PoH	Supervision,

		Emissions to air				Reporting obligation
T44	JW van Stee	Noise, Emissions to air	FUMO	Omgevingswet	Maritime retail (freight trucks and oil storage)	Supervision, Reporting obligation

Other business						
Ref. Nr.	Aspects (sub) department, tenant, operators)	Impact on	Responsible person / organisation	Applicable legislation	Legal requirements	Control measures
T45	Reststoffen-energiecentrale (REC)	Emissions to air Discharges to water Odour Dust	FUMO RWS	Omgevingswet Omgevingsplan	n/a on NV PoH	Supervision, Reporting obligation, Stimulate, Innovation
T46	Windpower Centre	Noise	FUMO	Omgevingswet Omgevingsplan	Noise zone	Supervision, Reporting obligation, Stimulate, Innovation
T47	De Vlas Transport BV	Noise, Emissions to air	FUMO ILenT	Omgevingswet Omgevingsplan	Noise zone Emission restrictions for vehicles	Supervision, Reporting obligation
T48	Shipping	Emissions to air Noise Discharges to water Dust	FUMO RWS	Omgevingswet	n/a on NV PoH	Supervision, Reporting obligation
T49	Boomsma Kieftenburg	Emissions to air	FUMO	Omgevingswet Omgevingsplan	n/a on NV PoH	Supervision, Reporting obligation
T50	Frisia zout BV	Waterquality Dust Subsidence	FUMO/RWS	Omgevingswet Waterwet Mijnbouwwet	n/a on NV PoH	Supervision, Reporting obligation
T51	KTF	Emissions to air	FUMO ILenT	Omgevingswet Omgevingsplan	Noise zone Emission restrictions for vehicles	Supervision, Reporting obligation

Table 8: Environmental Aspect Register PoH.

Legal Statement

We state that the register of environmental aspects and requirements in this document of the PERS application (6 February 2024) is suitable and relevant for the main environmental aspects of the NV Port of Harlingen.

Name : I.M.E. Hazeleger

Place : Haarlem, 1 februari 2024

Autograph :

A handwritten signature in blue ink, appearing to read 'I.M.E. Hazeleger', with a long, sweeping horizontal stroke extending from the end of the name.