



Sustainability Report

Environmental Dimension





Environmental Dimension

Environmental strategy

Huelva Port Authority fully identifies with the aim of ensuring its activity is sustainable. That concept includes the upkeep and conservation of the environment in which it operates, which clearly and decisively in keeping with its Strategic Plan, the monitoring environmental watch of the most demanding parameters and which respect current regulations and legislation.



In Europe, the environmental guidelines and objectives set by the European Commission have led to extensive legislative development that European ports have implemented and reinforced with tools such as the ISO 14001 and PERS environmental management systems, as is the case of Port of Huelva.

In the framework of the Port of Huelva environmental strategy, not only the merely port activities need to be considered, but also the environment in which they are implemented, the quality standards to be met, along with the activities performed by external stakeholders with direct influence on the Port Service Area and, consequently, on the environmental management of the Port.

Environmental management

ISO 14001:2015 environmental management (A_01)

Huelva Port Authority has an Environmental Management System (EMS) operating with the following certificates:



The scope of the EMS is as follows:

General Services, as they are defined in the regulatory framework of the state port system and management of the port public domain

The financial effort made for its maintenance has been:

Investments linked to implementing or maintaining the SGA: €3,384,831.55

(Investments in SGA/Total tangible and intangible investments) * 100: 11.68%

Costs linked to implementing or maintaining the SGA: €158,226.62

(Spending on SGA/Other operating costs) * 100: 0.87%



Total economic resources on environmental monitoring and characterisation (A_02)

Environmental characterisation or measuring work in 2021 was:

- Water or sediment quality
- Air quality
- Soil quality
- Other habitats or species

The economic resources allocated to the characterisation and monitoring of the port environment:

**Investment in environmental characterisation:
€86,420.54**

(Investments in characterisation/Total tangible and intangible investments) * 100: 0.30%

**Spending on environmental characterisation:
€143,462.05**

(Spending on characterisation/Other operating costs) * 100: 0.79%

3 These were the costs of the environmental watch during the dredging operations

Costs of cleaning of the water and land communal areas (A_03)

The duties of Huelva Port Authority regarding cleaning the land and water surfaces includes cleaning service roadways and wharves, along with cleaning the banks of the River Odiel when material dragged by the river are deposited there following storms.

The costs of cleaning the communal areas during 2021 were as follows:

Expenditure on cleaning on land: €1,207,044.16

Service areas on land: 17,841,824.00 m²

Expenditure on cleaning on land/On-land service surface area: €0.07/m²

Expenditure on cleaning water surfaces: €69,720.33

Zone I surface area: 20,921,100 m²

Cost of cleaning water surface / Zone I surface area: €0.003/m²



Environmental training (A_04)

Huelva Port Authority's environmental management and training effort in 2021 is broken down below:

Number of people involved in environmental monitoring and management: 4

Number of workers accredited as having received environmental training according to their port environment management or monitoring skill-sets: 0

Percentage of workers with environmental training with respect to the annual average workforce in 2021: 0%

Air quality

Sources of emissions (A_05)

The main causes of a drop in the port's air quality are related to dust and particulate emissions.

The main emission hotspots and their relevance are broken down below:

- Industrial activities at concessions: Calculated as the number of concessions where the industrial activities imply emissions channelled to the atmosphere.
- Emissions from vehicle engines
- Emissions from moored vessels and cruise ships
- Handling solid bulk using conventional means: Calculated as the number of companies with stowage

licence that move bulk by means of bucket/conventional hopper/lorry or bucket/stored-on-wharf/shovel/lorry or lorry/conventional-conveyor-belt.

- Handling bulk using uncovered special systems: Calculated as the number of companies with uncovered or partially covered freight transport continuous systems.
- Storage of solid bulk outdoors: Calculated as the number of concessions that store solid bulk outdoors.
- Emissions from truck box with no canopy
- Works
- Cleaning and paint hulls: Calculated as the number of concessions that clean and paint hulls outdoors.
- Other activities (specify which)

4 Order of relevance. Score the order of relevance of each hotspot from 1 upward, until all the significant hotspots present in the port or ports are covered.

Complaints or reports regarding emissions to the atmosphere (A_06)

Huelva Port Authority has a specific procedure for receiving and managing environmental complaints, which are channelled through the registry or by email through a special section of the website. Thus, suggestions or complaints are formally logged and then sent to the relevant department to be managed in a timely fashion, along with the relevant answer being sent to the user.

No formal complaint was received in that regard during 2021.

The port authority continues to monitor environmental aspects related to port operations and the concessions. It specifically monitors for episodes of possible atmospheric emissions in service area in order to establish the appropriate corrective and preventive measures, as necessary.

Measures adopted by Huelva Port Authority to control emissions (A_07)

The measures implemented were:

- Installing a plant windbreaker screen along the Ingeniero Juan Gonzalo Wharf.
- Best practices guides and voluntary environmental codes.
- Direct supervision on the wharves by Port Authority technicians.
- Sprinkling systems for bulk stockpiles and roads.
- Wind speed information and warning systems.
- Air quality forecasting system

- Fixed sprinkling system in the storage area of the Ingeniero Juan Gonzalo and Ciudad de Palos wharves.
- Mobile sprinkling system and intensive cleaning of spillages on roadways.



Air quality monitoring stations (A_08)

As regards controlling the air quality, operations are constantly monitored, particularly in the bulk grain loading and unloading areas (as these are the most significant pollution hotspots), establishing specific measures during the operations including sprinkler systems if necessary for the dusty operations.

The rest of the service area is likewise intensively monitored by the Environmental Police, in order to detect the needs and establish the appropriate corrective and/or preventive measures, as applicable.

Water quality

Sources of discharges (A_10)

The water pollution hotspots at the port or ports by order of relevance are:

Sources of discharges	Order of relevance
Rivers, streams, watercourses or ditches	1
Industrial discharge from port concessions	2
Non reglementary discharges from vessels (bilges, etc.)	3
Vessel refuelling and provisioning at wharf	4
Accidental spills when loading/unloading liquid bulk	5
Poor practices in cleaning and maintenance of wharves and equipment	6
Spills when loading/unloading solid bulk	7
Dredging	8
Urban treated wastewater (WWTP)	9
Cleaning and blasting hulls	10
Works	11

Sources of discharges	Order of relevance ⁵
Irrigation or rain runoff, not channelled or channelled but not treated	N/A
Untreated urban wastewater	N/A
Bunkering of anchored vessels	N/A
Other spills (indicate which)	N/A
Otros vertidos (indicar cuáles)	NA

⁵The order of relevance is allocated from 1 to 4, with 1 being the highest. NA, when Not Applicable.

The main cause of the poorer water quality of the port are upstream discharges in rivers and streams, with the acid drainage from the mines considered as such. An inventory and characterisation of the different water discharge and pollution hotspots of the sport were carried out. The water quality was continuously characterised during the 2020-2022 maintenance dredging campaign.

Measures adopted by Huelva Port Authority to control discharges(A_11)

The measures implemented to improve and control the water quality at the Port of Huelva are:

- Collecting water on the wharfs and improving the surface of the Ing. J. Gonzalo and C. de Palos wharves.
- Regular sediment and water quality characterisation campaigns.
- Direct supervision on the wharves by Port Authority technicians.
- Setting up of areas for equipment cleaning and maintenance.
- Improvements to managing runoff (collecting, channelling, prefilter wells, storm tanks, etc.).
- Specific environmental requirements regarding waste water and runoff management when awarding concessions.
- Environmental requirements regarding equipment maintenance and cleaning in service specification and award terms and conditions. Best practices agreements.
- Approval of Internal Maritime Plans (IMP) as emergency response to marine pollution.
- Better own resources for controlling accidental marine pollution.

All the binding environmental authorisations are reviewed during the audits for the environmental best practices subsidies. Furthermore, the Environmental Police play an important role in controlling all those requirements.

As particularly noteworthy, during 2021 Huelva Port Authority continued to work on a project to renew and improve the sewage network on the Ingeniero Juan Gonzalo Wharf, which in turn will lead to improvements to its paved surface. This will help to optimise cleaning and minimise dust emissions as the result of machinery and lorry traffic.

The approximate total budget for the project will be €28 million.



Water quality characterisation projects (A_12)

During 2021⁶ campaigns were conducted to monitor the water quality in the Service Area, related to the dredging work. The type of parameters measured in those characterisation campaigns are: dissolved oxygen, pH, redox potential, conductivity, temperature, salinity, turbidity, suspended solids, total nitrogen, phosphates, oxidizable organ carbon and metals (mercury, cadmium, lead, copper, zinc, chrome, nickel and arsenic).

Sewage network and wastewater treatment (A_13)

At the Port of Huelva's Service Area, there is a large industrial area whose facilities have its own sewage network that is connected to the municipal one. As regards the rest of the port use area, there is likewise a large sewage network that collects the wastewater and takes it to the Municipal Wastewater Treatment Plan to be treated.

6 En relación con la DIA Resolución de 22 de enero de 2018, de la Dirección General de Calidad y Evaluación Ambiental y Medio Natural

The detailed percentages are as follows:

Type of treatment	% of surface ⁷
Percentage of the service area with sanitation system	100.0%
Percentage of the on-land service area with sanitation system connected to the wastewater treatment plant	99.9%
Percentage of the on-land area discharging into septic tanks	0.01

Runoff waters treatment (A_14)

As regards runoff waters, the degree of its collection is indicated below:

Type of system	% of surface area ⁸
Percentage of land surface area with a runoff water collection system	100.00%
Percentage of service area with a runoff water collection and treatment system	90%

The storm tank to collect runoff waters on the Ingeniero Juan Gonzalo Wharf is currently underway.

Schematic overview of the technical resources used to clean the body of water and weight of floating items collected in the year (A_15)

In July 2018, a new contract was signed for the beaconing maintenance and cleaning up of floating items.

The cleaning up of floating items from the port's water surface during 2021 is detailed in the following table:

- N ° of vessels: 3
- Cleaning frequency: Presence of floating items
- Weight of the waste collected in Tm: 3,04

⁷ Those percentages refer to the service area of the port with facilities and where port operations are performed or may be performed. The surface area of the service area that is saltmarsh and with no facilities has not been included in that calculation..

⁸ It should be pointed out that these percentages refer to the service area in which activities are carried out or may be carried out. They exclude the portion of the service area taken up by marshland, with no facilities.

Activation of the Internal Maritime Plan (IMP) (A_16)

Type	Number
Number of sea pollution incidents not requiring activation of the IMP*	0
Number of sea pollution emergencies requiring activation of the IMP. Certain concessions, with no need for activation of the Port's IMP ("Alert")	0
Number of sea pollution emergencies requiring activation of the Port's IMP ("Alert")**	4
Number of sea pollution emergencies requiring activation of the National Maritime Plan ("situation 1 or higher")	1

* Pursuant to the procedures established in the Huelva Port Authority's IMP, activation of the IMP for any concession entails activation of the Port Authority's IMP, or at least its alert phase

**Activation of the APH IMP in Emergency Phase, Response Level 1.



Volume of wastewater discharges generated by the Port Authority or discharges by manifolds of which the Port Authority is the owner, broken down by types (A_17)

The activities of the Huelva Port Authority that generates wastewater discharges from::

- Offices, Levante Wharf: ARU (Urban wastewater)
- South Wharf: ARU (Urban wastewater)
- Ingeniero Juan Gonzalo Wharf: ARI (Industrial wastewater)

The destination of that wastewater:

- **Municipal manifold:** Offices, Levante Wharf (Rain)
- **Septic tank:** South Wharf (Offices)
- **Own treatment:** Operational on Engineer Juan Gonzalo Wharf

Only rainwater ends up in the river estuary. There are different clean rainwater points in the service zone, which does not require treatment and there are no devices to measure flow or volume.

Noise

Noise sources (A_18)

The possible significant acoustic emission sources at the Port of Huelva are as follows:

Activity	Order of relevance ⁹
Operations with scrap metal	N/A
Other activities (indicate which)	N/A
Industrial activity at concessions	1
Truck traffic	2
Ships at berth	3
Port machinery	4
Rail traffic	5
Construction work	6
Operations with containers	7
Movement at Ro-Ro terminals	8
Leisure facilities	9

⁹ The order of relevance is allocated from 1 to 4, with 1 being the highest. NA, when Not Applicable.

Noise complaints or reports (A_19)

Huelva Port Authority has a specific procedure for receiving and managing complaints, which are channelled through the registry. Thus, suggestions or complaints are formally logged and then sent to the relevant department to be managed in a timely fashion, along with the relevant answer to the user.

In 2021, there was no noise complaint.

- Activity leading to the complaint: -
- Number of complaints: 0
- Source of the complaint: -

In previous years, no significant complaints or reports regarding noise emissions from port activity have been registered with the Huelva Port Authority.

	2019	2020	2021
Number of complaints	0	1	0

This is mainly due to the service wharves where the main port activity is concentrated are in the Outer Port, far from the population centres. That is why Huelva Port Authority did not plan to produce a noise map or adopted measures to control the noise emissions linked to the port's activity.

Waste management

Percentage of waste generated by the Port Authority that is separated and re-covered for reuse (A_22)

Huelva Port Authority controls the volume of waste generated at its facilities, with the amount going to a recovery process recorded.

The percentage of waste produced by the Port Authority that was collected separately and subsequently recovered and recycled in 2021 were:

Type of waste	Separate Collection (Tm waste separated / Tm total waste generated) *100	Recovered (Tm waste recovered / Tm total waste recovered) *100
MSW	97.35%	0.98%
Hazardous waste	2.65%	2.65%
Oils	0%	0%

The volume of waste related to the cleaning service in 2021 is classified as set out below:

Type of waste	Total amount collected during the year in Tm	Percentage of the total collected
Intert	1,548.42	95.20%
Non-hazardous	1,626.41	100.00%
Hazarduos	0.00	0.00%

Waste generation activities or sources within the port (A_23)

There are different sources generating waste similar to urban, inert or hazardous waste in the Service Area and, according to the volume of waste generated, the following sources should be mentioned according to their importance:

Source or activity	Order of importance
MARPOL waste delivery	1
Concession activity generated by concessions	2
Loading and stowage waste (cargo discarded, packaging, etc.)	3
Cleaning of wharves, roads and communal areas	4
Remains from solid bulk sweepings	5
Fishing (packaging, nets, fish scraps, etc.)	6
Works	7
Machinery servicing	8
Cleaning septic tanks	9
Cleaning up water bodies (floating solids)	10
Cleaning accidental spilalges	11
Commercial, leisure and bar activity in Service Area	12
Other activities	

Measures to improve waste management (A_24)

The Port Authority's measures to improve the waste management of the Port Community include the following::

- Recycling facilities with separate waste collection. Those recycling facilities are used to collect the following waste:
 - Waste from the Port Authority, generated in offices and APH buildings.
 - Waste from vessels (MARPOL), processed by an authorised manager contracted by Huelva Port Authority.
 - Waste transfer centre, a concession held by an authorised manager contracted by stevedore companies.

- Compliance with internal regulations.
- Penalties in case of waste being abandoned in non-authorized places.
- Regular monitoring of concessions and port service providers to verify the monitoring of the administrative requirements established by the waste law through the audits of bonuses in environmental matters in which the Port Authority is present, along with daily environmental monitoring by the Environmental Police and all the facilities in the Service Area.
- Best practices agreements.

Managing dredged material (A_25)

The dredging carried out was to maintain the draughts of the Port of Huelva, whose environmental surveillance was conducted pursuant to the requirements of the Environmental Impact Declaration of February 2018. The controls both during the dredging and the discharge into the allocated area or in the marine dumping areas include: quality of the water, the sediment, control of the marine biota, protected spaces, checking noise and emissions from the dredging, etc.

The volumes and characteristics are set out below:

	m ³	% sobre el total
Total volume of dredged material	500,000	100%
Volume of category A material	211,168.30	42%
Volume of category B material	0.00	0%
Volume of category C material	288,831.70	58%
Volume of material classified as waste	0.00	0%

All the Category C material has been dumped in the allocated area for Huelva Port Authority, pursuant to the "Guidelines for the characterisation of dredged material and its relocation in waters of the maritime-terrestrial public domain".

Natural environment

Natural spaces in the vicinity of the Port of Huelva (A_26)

The Port of Huelva is in a setting of great biological and environmental wealth, and adjacent to which, and even within the Service Area, there are different protected natural spaces with a surface area of approximately 12,000 Ha, 560 of which are in the Port of Huelva's Service Area.

Those spaces enjoy different protection statuses, including: Natural Site, Natural Reserve, Biosphere Reserve (MAB Programme), Wetlands of International Importance include in the RAMSAR List, Special Protection Areas (SPAs) and Sites of Community Interest (SICs) and which are indicated below:

Name	Type of space ¹⁰	Distance to the port ¹¹
Nature Area - Marismas del Odiel	MAB, RAMSAR, ZEPA, LIC	Partially included
Nature Area - Estero Domingo Rubio	ZEPA, LIC	0 Km
Nature Area - Laguna de Palos y las Madres	RAMSAR, LIC	3,2 Km
Nature Reserve - Isla de Enmedio	MAB, RAMSAR, ZEPA, LIC	1 Km
Nature Reserve - Marismas del Burro	MAB, RAMSAR, ZEPA, LIC	0 Km



¹⁰LIC, ZEPA, Humedal RAMSAR, Site of Cultural Interest, etc.

¹¹The distance is taken to be to the physical port, in other words, Shore Zone and Zone 1. When it is partially or fully within, "included" or "partially included" will be indicated as appropriate. When it is adjoining, "0 km" will be indicated.

The Odiel Saltmarshes Natural Site, has been declared a Biosphere Reserve, Special Protection Area (SPA), SIC and included on the RAMSAR List, stands out for its environmental values and area (6,631 Ha) among those spaces.

This Site is partially included in the Service Area of the Port, with a surface area of 562 Ha, specifically, on the right bank of the Odiel estuary where there are practically no port facilities. There is therefore a close link between the management of this natural area and the Port Authority, and is represented on its board.

The ecological value of the Odiel Saltmarsh natural space is that it has continentalised and tidal estuary saltmarsh ecosystems, as well being highly productive coastal sandbank ecosystems, which are a strategic point for migratory birds' nesting and breeding and are home to a large variety of habitats and landscapes.

Declared a Biosphere Reserve in 1983, the Odiel Saltmarsh Natural Site is home to protected species, including the spoonbill, grey heron, purple heron, marsh harrier, osprey, flamingo, black stork and otter, among others.

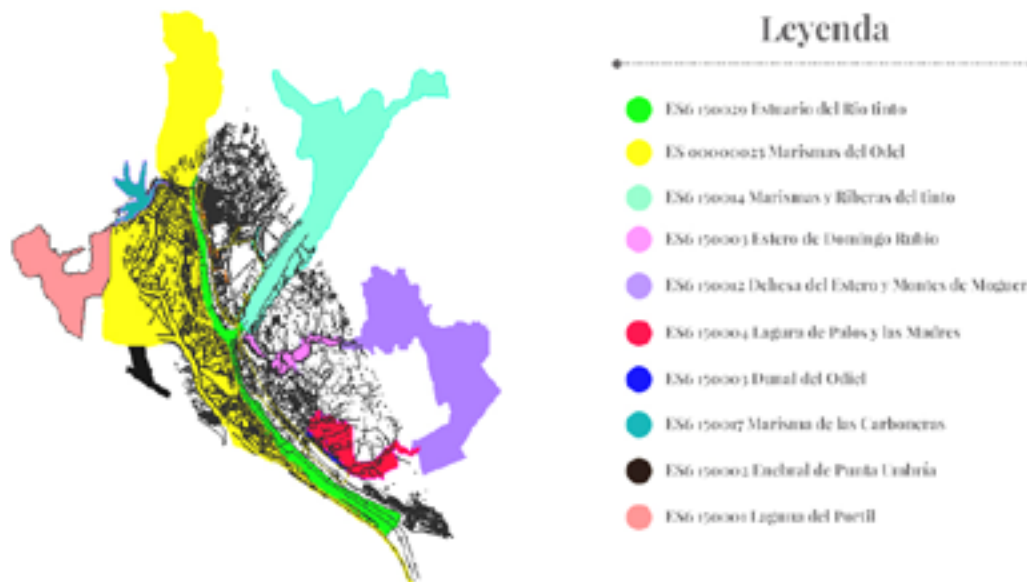


Figura 1: Protected natural spaces in the vicinity of the Port of Huelva Source: Prepared by the authors.

Schematic description projects to regenerate the natural environment undertaken by the Port Authority and value in euros of the cost of those actions (A_28)

Landscape improvement actions:

Remodeling of Francisco Montenegro Avenue

- **Place:** Francisco Montenegro Avenue
- **Completed:** Implementation status in 2021
- **Year:** 2021-2022
- **Reason:** This action has changed the appearance of the previous avenue by turning it into a boulevard, with new parking areas, 1,500 trees and 24,000 plants.
- **Description:** It consists of the landscape and aesthetical remodelling of the avenue, with the creation of large landscaped areas and reducing noise pollution by installing new low noise impact paving as the outcome of an innovation project conducted by Huelva Port Authority.
- Investment and expenditure in: **€12 million**



Rebuilding the old Fountain of Nations

- **Place:** Francisco Montenegro Avenue
- **Implementation status in 2021:** underway
- **Year:** 2021-2022
- **Reason:** The Port of Huelva is continuing to strive to maintain and restore our architectural heritage.
- **Description:** This involves building and restoring the former Fountain of Nations. This sculpture was designed as a resting place 500 metres from the Riotinto loading wharf. Unveiled on 9 July 1917, it was de-



molished in 1965 for the work to extend the current Avda. Francisco Montenegro. tenegro

- Investment and expenditure in €: €142,650



Eco-efficiency

Land use (A_29)

The percentage of the service area, defined according to the Port Space Use Plan, occupied by concession or own active facilities (5,246,600 m²) is 29.41% of the total surface area (17,841,824 m²), however, if we consider the 7,774,110 m² of useful area (deducting the 10,067,714 m² of saltmarshes), the percentage would rise to 43.57% of that surface area.

Water consumption (A_30)

Management of the Port's water supply, whose consumption points are controlled 100%, is outsourced to the Huelva Municipal Water Company, which sells water in the Port.

The total annual water consumption by the Port Authority, expressed in total cubic metres and cubic metres for each square metre of the service zone's surface area, was as follows:

Sources of consumption	2019	2020	2021
Consumption in m ³	133,466.00	135,811.00	134,889.00
Service zone surface area in m ²	17,161,871	17,161,871	17,841,824
Ratio m ³ /m ²	0.008	0.008	0.008

Port Authority water consumption for uses in 2021:

Sources of consumption (m ³)	% of total
Domestic/offices	10.12%
Watering areas of greenery	70.05%
Dust-prevention watering systems (only if they belong to the Port Authority)	18.17%
Other uses	1.67

Huelva Port Authority has installed meters to be better aware of consumption by application and detect losses as a means of saving.

Evolution, over at least the last three years, in the efficiency of the water distribution network, expressed as a percentage, for Port Authorities managing the distribution network directly (A_31)

Special mention should be made of the great effort by Huelva Port Authority to avoid possible losses in the water consumption. We have therefore had a commitment in place to 100% efficiency of the network for over three years:

	2019	2020	2021
Network efficiency in %	80.28%	73.95%	74.20%

Electricity consumption (A_32)

Electricity is distributed at the Port of Huelva through the different infrastructures of ENDESA Distribución. Since 1 July 2009, pursuant to Legislative Decree 485/2009, of 3 April, the operators in Huelva Port Authority's Service Area have had the option of contracting the supply of electricity with the retailer they choose from those on the market.

The total annual consumption of electricity over the last three years by the Port Authority and lighting in common-usage areas, expressed as total Kwh and as total Kwh for every square metre of the service area was as follows:

	2019	2020	2021
Consumption in Kwh	3,550,221.50	3,762,446.02	4,280,723.04
Service zone surface area in m2	17,161,871	17,161,871	17,841,824
Ratio Kwh/m2	0.206	0.219	0.240

Port Authority electricity consumption for uses in 2021:

Consumption source	% of total
Road Lighting	86.55
Offices (lighting, climate control, etc.)	12.37
Other uses (indicate which)	1.09

Continuing with the energy efficiency project, which started in 2019, should be highlighted as a control and savings initiative. Furthermore, in mid-2018, the APH contracted its electricity supply with a company with 100% renewable OG, leading to 100% reduction in CO₂ emissions of the Main Office.

Fuel consumption (A_33)

The evolution during the last three years of the total annual consumption of fuels by the Port Authority of Huelva, expressed as total cubic meters and as cubic meters per square meter of Service Area, have been as follows:

	2019	2020	2021
Total fuel consumption in Kwh	254,835.37	241,973.04	277,323.88
Service zone surface area in m2	17,161,871	17,161,871	17,841,824
Ratio m3/m2	0.014	0.014	0.016

Consumption by types of fuel in 2021:

Type of fuel	% of total
Natural Gas	
Butane or propane gas, or liquefied petroleum gas	
Petrol	30.92%
Diesel	69.08%
Biodiesel	

Consumption of fuel by usages in 2021:

Sources of consumption	% of total
Heating/Domestic Hot Water	
Vehicles	97.52%
Vessels	
Generators	2.48%
Other uses	

One of the fuel-saving measures introduced by the Port Authority in 2021 along with the optimising of the lighting was to update the car fleet, replacing diesel vehicles by hybrids.

Port community

A set of very different activities are based in the Port of Huelva's Service Area, particularly industrial activities, associated ones and those related to the fishing industry.

Environmental conditions in the Particular Terms and Conditions of port services, in the conditions of approval and in concessions or authorisations (A_34)

The Terms and Conditions for concessions and terms of services are tools through which the Port Authority establishes specific environmental requisites. Some of these focus on the following aspects:

- Reference to specific operating practices for checks on environmental aspects.
- Requirement in relation to tidiness and cleanliness of work facilities.
- Requirement in relation to waste management.
- Control of soil pollution and decontamination in concessions.
- Compliance with the general and specific legal requirements for the activity.

Environmental management systems at port facilities (A_35)

The SGMA degree of implementation in service providers and freight handling terminals was:

Total number and percentage of maritime terminals and service companies with an SGA implemented whose scope covers its whole activity:

Type of terminal/service	Total No. with EMS	% with EMS
Freight terminal	6	86
Passenger terminal	2	0
Stevedore service	0	50
MARPOL service	2	100
Nautical technical service	0	0
Port services (others)	22	39