Environmental Dimension
Environmental strategy

The Huelva Port Authority, fully committed to carrying out a sustainable activity, a concept which includes the maintenance and preservation of the natural medium in which it operates, clearly and decisively considers, in consonance with its strategic plan, environmental monitoring and supervision of the most stringent parameters in due compliance with regulations and laws in force.

At European level, the environmental criteria and objectives laid down by the European Commission have produced extensive regulations that European ports have implemented and reinforced with tools such as the ISO 14001 and PERS environmental management systems, as is the case at Huelva Port.

Spain’s Law governing State Ports and the Merchant Navy also enhances the environmental component to highlight its role in all activity at the port, and particularly in the creation of infrastructures, port operations, provision of port services and management of the public port domain, along with incentives to improve the port community’s environmental performance. The incentives granted by the Huelva Port Authority in 2018 for good environmental practices at companies exceeded 650,000 €.

With respect to activity in at the Port carried out at the Port Authority’s facilities, the following may be singled out as relevant factors in Huelva Port’s environmental strategy:

- Checks on environmental aspects in relation to operations with liquid bulk goods, with particular consideration given to contingencies caused by accidental sea pollution.
- Checks on environmental aspects in relation to operations with solid bulk goods, chiefly emissions of particles.
- Environmental assessment of projects and new activities operated as concessions or with authorisations at Huelva Port.
- Optimisation and rationalisation of the use of natural resources.
- Checks on soil pollution, with a particular focus on activities with the potential to cause pollution.
Thus Huelva Port’s environmental strategy must consider not only port activities, but also the environment in which they are carried out, the environmental quality standards to be met, and the activities carried out by external agents with a direct influence on the Port’s service area and, consequently, on the Port’s environmental management.

Internalisation of all the factors and conditions has created the need to carry out different courses of action, described in this 2018 Sustainability Report, set out in planning instruments such as the Port’s 2018–2022 Strategic Plan, annual Company Plans, and the specifications for these in the Environmental Action Plans.

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Environmental management

ISO 14001:2015 environmental management system (A_01)

Work continued in 2018 on maintaining the environmental management system in accordance with the ISO 14001:2015 Standard, which required measures to be adopted not only by the Huelva Port Authority, but also by certain agents operating in the Port Community.

The UNE-EN ISO 14001:2015 Standard has been successfully certified since 2017 for all activities at the Huelva Port Authority, including the following:

- Organisation, coordination and control of sea and land traffic at the port.
- Coordination and control of operations associated with port services, commercial services and other activities.
- Signalling, marking and navigational assistance.
- Police in common-usage areas.
- Lighting in common-usage areas.
- Cleaning of common-usage areas on land and at sea.
- Prevention and control of emergencies, in the terms established by civil protection regulations, in cooperation with the competent authorities responsible for civil protection, fire prevention and firefighting, rescue services and prevention of pollution.

It also includes the following:

- Management and administrative activities in offices such as administration of economic resources, trade relations, preparation of technical reports and projects, organisation, coordination and control of sea traffic at the port, management of the public port domain, authorisation and control of services provided at the Port, etc.
- Civil engineering for construction and maintenance of port infrastructures.
- Keeping the port in proper condition. This entails cleaning, waste collection, maintenance work, lighting and signs for roads, docks, common-usage areas, port facilities and equipment.
- Supervision of the service area. This includes supervision of the port area, information for Port users, organisation of sea and land traffic, etc.
The following are also affected:

- Port Authority’s Main Office.
- Port’s Service Control Centre.
- Conservation and maintenance services.
- Public docks.

The Huelva Port Authority has also operated and certified the PERS (Port Environmental Review System) since 2017. This is a specific environmental standard for the port sector, forming part of the European Sea Ports Organisation (ESPO)’s Ecoports System.

A total of 44,385.50 euros was allocated to maintain the Huelva Port Authority’s Environmental Management System and to maintain both certifications, accounting for 0.19% of total operating expenditure in the year. A further 3,438,855.38 euros were invested in the implementation and maintenance of certification or improvements to the environmental management system. The package accounts for 17.88% of total material and non-material investment.
Total economic resources allocated to environmental characterisation and monitoring (A_02)

The economic resources allocated to environmental characterisation and monitoring in 2018 were 82,388.00 €, or 0.34% of total operating expenditure in the year.

The funds were spent on the characterisation of dredge materials, air quality surveys and soil testing.

Expenditure on cleaning common-usage areas on land and at sea (A_03)

The attributions of the Huelva Port Authority in relation to the cleaning of areas on land and water surfaces include the cleaning of service docks and roads, and the banks of the Odiel estuary after storms have deposited materials carried along by the river.

It is also jointly responsible along with the Department of the Environment for cleaning around the Juan Carlos I Breakwater, next to the Marismas del Odiel nature area.

Cleaning work is carried out by an authorised waste management company, and expenditure in 2018 was as follows:

| Expenditure on cleaning on land: 1,444,884.84 € | 1,444,884.84 € |
| Service areas on land: 17,161,871 m² | 17,161,871 m² |
| Expenditure on cleaning on land/On-land service surface area: 0.08 €/m² | 0.08 €/m² |
| Expenditure on cleaning water surfaces: 0 € | 0 € |

Here it should be pointed out that, of the 1,716 hectares of on-land service area at Huelva Port, 1,006 hectares (58.6%) are marshland which does not require any cleaning because it is not used by the port; therefore, if this area is subtracted from the total, the ratio of cleaning expenditure against the service surface area would be 0.2 €/m².
Environmental training (A_04)

The Huelva Port Authority has five people in charge of environmental management and supervision, with specific training for 218 people, accounting for 2.29% with respect to the annual average workforce in 2018. In 2018, 1.83% of the workforce received instruction in environmental issues, in accordance with the Huelva Port Authority’s Training Plan.

Air quality

Sources of emissions (A_05)

The industrial fabric of Huelva Port’s service area contains a number of different sources of occasional and disperse atmospheric emissions.

The sources of occasional or channelled emissions are associated with the chemicals industries and ships, and are characterised by the generation of gaseous emissions as the result of different combustion processes.

Disperse emissions are chiefly associated with traffic of heavy vehicles relating to industrial activities; with traffic of light vehicles associated with commercial activities, transport and services in the Port’s service area and in the city of Huelva itself; with solid bulk goods operations at Ingeniero Juan Gonzalo Dock and Ciudad de Palos Dock; with indoor weather-protection storage of the goods at these docks and at concessionaire companies, and with work on infrastructures. The main cause of air pollution is therefore associated with emissions of dust and particles during these operations, and to this end the Huelva Port Authority implements a number of preventive measures to minimise the emissions, as described in section A_07.

Complaints or reports of atmospheric emissions (A_06)

The Huelva Port Authority has a specific procedure to examine and manage environmental complaints, which arrive at a register or by e-mail on a website channel. This means that any suggestions or complaints are officially registered, and the department concerned is then notified to address the issue and reply to the user.

In the last three years, however, the Huelva Port Authority has not received any complaints or reports from any of the Port’s stakeholders concerning the emissions of particles caused by operations with solid bulk goods at Huelva Port’s service docks.
Nevertheless, in 2018 the Port Authority cooperated in the supervision of environmental aspects such as foul smells in relation to the facilities of concessionaire companies which led to complaints by users, but when an analysis had been conducted and the issue had been addressed and monitored, it was found that this was not attributable to activity at the port.

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

With respect to air quality control, a system is in place to predict air quality by means of an application developed on an R+D+i project known as “Safe & Green Port” which reports one simulation daily, a tool which is extremely useful to Huelva Port’s Environmental Police, and which also assists with decision-making concerning the measures to be adopted.

The Huelva Port Authority has also continued to work on adopting measures to prevent and monitor the emissions generated during loading and unloading operations, to improve the environmental performances of businesses and boost the Port’s general green image. These measures include the following:
1. Maintenance of a fixed water sprinkler system in the storage areas at Ingeniero Juan Gonzalo Dock and Ciudad de Palos Dock.

2. Mobile sprinkling system and industrial cleaning of road spillages.

3. Maintenance of the plant barrier to contain particles.

4. Maintenance of stations and equipment to control and monitor air quality.

5. Several campaigns to characterise particles in the atmosphere.

6. Maintenance of the air quality prediction system, which creates alerts to activate measures to prevent emissions or good practices in situations forecasting overruns of the legal thresholds for particles, or potential pollution scenarios affecting sensitive areas.

**Air quality control stations (A_08)**

The Huelva Port Authority has the means to monitor air quality around the Outer Harbour and at Ingeniero Juan Gonzalo Dock and Ciudad de Palos Dock, providing information to enable models to be developed to the scale of the port.

No air quality data are available, however.

**Water quality**

**Sources of discharges (A_10)**

The possible sources of discharges in the Port’s service area are many and varied, such as the following:

- Industrial discharges from port concessions, dredging, incorrect cleaning and maintenance of docks and equipment, unprocessed urban sewage, spillages during the loading and unloading of solid bulk goods, rainwater or sprinkler runoffs, not channelled or channelled with no processing, discharges produced during construction work, cleaning and hosing down of ship hulls, refuelling and provisioning of docked ships, accidental spillages during the loading and unloading of liquid bulk goods, urban sewage processed at the water treatment plant, bunkering operations on docked ships, non-reglamentary wastewater from ships (bilge water, etc).

- In the case of Huelva Port, the Tinto and Odiel rivers, which bring water and sediment to Zone I, 90% of heavy metal pollution in this medium, since both rivers run through former mining zones which have not been regenerated, and this produces considerable acid mine drainage with a major effect in terms of pollution, making it the main cause of impairment of the quality of the Port’s water and sediment.
Measures adopted by the Huelva Port Authority to control discharges (A_11)

In 2018 the Huelva Port Authority embarked on a project to renew and improve the sanitation system at Ingeniero Juan Gonzalo Dock, with the option of a paved surface to optimise cleaning operations and minimise dust emissions caused by trucks and machinery.

As an unwavering plan for “zero” discharges, the project contemplates certain courses of action in line with the objectives of the Tinto–Odiel–Piedras Hydrological Plan.

The solution as planned consists of the following:

- Demolition work and removal of certain features.
- New drainage network.
- Paving and repaving.
- Facilities and other ancillary work.
- Rainwater collection tank.

The approximate total budget for the project is 28 million euros, with an estimated timeline of three years.
### Characterisation of water quality (A_12)

Water quality in the service area was monitored in 2018 in connection with dredging work.

Management of water quality during dredging operations requires constant supervision, which consists of characterising the materials to be dredged and also environmental monitoring during the operations and discharges inside the service areas. These measures are contemplated in the exhaustive environmental supervision plan forming part of the maintenance dredging project, which was drawn up in accordance with the requisites of the favourable Environmental Impact Declaration published in a Resolution on 22 January 2018 by the Department of Quality and Environmental Assessment and Natural Spaces.

The type of parameters measured in these characterisation campaigns are: dissolved oxygen, pH, redox potential, conductivity, temperature, salinity, turbidity, solids in suspension, total nitrogen, phosphates, oxidisable organic carbon and metals (mercury, cadmium, lead, copper, zinc, chromium, nickel and arsenic).

### Sanitation system and treatment of wastewater (A_13)

Huelva Port’s service zone has a large industrial area with its own sanitation system. There is an extensive sanitation network which collects wastewater and conveys it to the municipal wastewater treatment plant for processing.

The main area percentages of the sanitation network with respect to the on-land service area allocated for port usage are shown in the table below:

<table>
<thead>
<tr>
<th>Type of treatment</th>
<th>% surface area*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage of the service area with sanitation system</td>
<td>95.30%</td>
</tr>
<tr>
<td>Percentage of the on-land service area with sanitation system connected to the wastewater treatment plant</td>
<td>95.30%</td>
</tr>
<tr>
<td>Percentage of the on-land area discharging into septic tanks</td>
<td>0.085%</td>
</tr>
</tbody>
</table>

*These percentages refer to the port service area containing facilities in which port operations are carried out or may be carried out. They exclude the portion of the service area taken up by marshland, with no facilities.
Treatment of rainwater (A_14)
The table below shows collection of rainwater:

<table>
<thead>
<tr>
<th>Type of system</th>
<th>% surface area*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage of land surface area with a rainwater collection system</td>
<td>90%</td>
</tr>
<tr>
<td>Percentage of service area with a rainwater collection and treatment system</td>
<td>80%</td>
</tr>
</tbody>
</table>

*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.

Schematic description of the technical means used to clean the water surface, and weight of floating matter collected during the year (A_15)
In July 2018 a new contract was signed for the maintenance of the marking and cleaning of floating matter. Only one cleaning operation was carried out in 2018.

Service to remove floating matter from the port’s water surface in the course of 2018:

| Nº of craft:                   | 1                      |
| Cleaning frequency:            | On request             |
| Weight of the waste collected:| 800 kgs (1 hut)        |

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

<table>
<thead>
<tr>
<th>Type</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of sea pollution incidents not requiring activation of the IMP</td>
<td>0</td>
</tr>
<tr>
<td>Number of sea pollution emergencies requiring activation of the IMP. Certain concessions, with no need for activation of the Port's IMP ('Alert')</td>
<td>2</td>
</tr>
<tr>
<td>Number of sea pollution emergencies requiring activation of the Port's IMP (“Alert”)</td>
<td>2</td>
</tr>
<tr>
<td>Number of sea pollution emergencies requiring activation of the National Maritime Plan (“situation 1 or higher”)</td>
<td>0</td>
</tr>
</tbody>
</table>

NB: 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.
Volume of wastewater discharges generated by the Port Authority, or discharges via collectors owned by the Port Authority, by types (A_17)

As already mentioned, 90% of discharge water is accounted for by rainwater in the service area, and therefore quantification of the volume discharged is unfeasible.

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Noise

Sources of noise (A_18)

The possible sources of major noise pollution at Huelva Port are as follows:

<table>
<thead>
<tr>
<th>Industrial activity at concessions</th>
<th>Construction work</th>
</tr>
</thead>
<tbody>
<tr>
<td>Port machinery</td>
<td>Operations with scrap metal</td>
</tr>
<tr>
<td>Truck traffic</td>
<td>Operations with containers</td>
</tr>
<tr>
<td>Ships at berth</td>
<td>Movement at Ro-Ro terminals</td>
</tr>
<tr>
<td>Rail traffic</td>
<td>Leisure facilities</td>
</tr>
</tbody>
</table>

Complaints or reports of noise (A_19)

No complaints or reports of noise pollution caused by port activities have been received by the Huelva Port Authority over the last three years.

This is mainly because the service docks where solid bulk goods are loaded and unloaded are in the Outer Harbour, at some distance from population nuclei.

This is why the Huelva Port Authority has not made plans for a noise map to be drawn up, and has not taken any measures to control noise emissions in connection with port activity.
Waste management

Percentage of waste generated by the Port Authority that is segregated and upgraded (A_22)

There follow the percentages of segregated and upgraded waste generated directly by the Huelva Port Authority, expressed in tonnes of each type of waste upgraded out of the total tonnage of waste collected:

Hazardous waste and used oils: 0.14% of the waste managed was hazardous, and 100% was properly segregated. This waste was not produced by the Huelva Port Authority’s activity, although it was treated as its waste for the sake of proper document management because it is an accomplished fact. The Port Authority did not produce any hazardous waste in 2018 due to its activity.

Upgraded waste: 5.38% of the total waste managed was upgraded. This represents an increase compared to previous years due to the increase in pruning waste. Almost 100% of the waste actually produced by the HPA was upgraded, since most of it was paper and cardboard.

Used oils: no data are available on used oils, since the vehicle oil-changing service, which accounts for most of the oil, is outsourced.

Activities or sources of waste at the port (A_23)

The service area contains several different sources of waste comparable to urban waste, inert waste or hazardous waste, as follows depending on the volume of waste:

- MARPOL waste.
- Waste generated by fishing activity (packaging, nets, remains of fish, etc.).
- Waste produced by the cleaning of docks, roads and common areas.
- Dust caused by movements of solid bulk goods.
- Loading and unloading waste.
- Waste generated by the activity of bars, leisure facilities and shops in the service area.
- Waste generated by construction work.
- Waste from machinery maintenance activities.
- Septic tank cleaning waste.
- Cleaning waste from accidental discharges.
- Water surface cleaning waste (floating solids).
Measures to improve waste management (A_24)
The following are some of the measures undertaken by the Port Authority to improve the Port Community’s waste management:

- Clean spots with separate waste collection. These spots are used to collect the following waste:
  - The Port Authority’s own waste, generated at its workshop centre. The centre does not produce any waste because the conservation services are outsourced.
  - Waste from ships (MARPOL), handled by an authorised waste manager engaged by the Huelva Port Authority.
  - Waste transfer centre operated as a concession by an authorised manager engaged by loading companies.
  - Compliance with internal regulations.
  - Penalties for abandoning waste at unauthorised locations.
  - Regular monitoring of concessions and port service providers to ascertain compliance with the administrative requirements established by the law on waste through the environmental allowance audits monitored by the Port Authority, and daily environmental supervision by the Environment Police and all facilities in the service area.

Management of dredged material (A_25)
The Tinto and Odiel rivers bring large amounts of materials in suspension into the Port’s Service Water, producing some major silting in port areas, especially during periods of severe storms.

This is why Huelva Port has to dredge the harbour regularly to guarantee draught dimensions in its navigable area.

Here it should be pointed out that the Tinto and Odiel rivers run through former mining zones, which produce considerable acid mine drainage with a major effect in terms of heavy metal pollution. The pollutants are conveyed to the mouth of these rivers and reach the Service Water, where the sea’s salinity leads to precipitation of the metals, which pollutes the sediment.

It is this sediment that must be dredged to maintain the draughts at Huelva Port, and therefore stringent environmental management is necessary for the polluted dredged material in accordance with the quality standards established in the guidelines for the characterisation of dredged material and relocation of this material in water forming part of the public sea-land domain, drawn up by the Interministerial Marine Strategies Committee in 2015.

In December 2018 the Huelva Port Authority carried out a dredging project for maintenance purposes, which has a favourable Environmental Impact Declaration published in a Resolution on 22 January 2018 by the Department of Quality and Environmental Assessment and Natural Spaces. A total of 67,776.30 m³ was dredged, all of which was Category A material.

The environmental supervision plan contemplates exhaustive environmental monitoring of the areas to be dredged and their surroundings, focusing mainly on control of the quality of water, sediment, marine biota, noise, the production of waste etc. The outlay on environmental supervision during dredging operations totalled 1,055,040 €.
Natural environment

Natural spaces around Huelva Port (A_26)

Huelva Port is located in an area of great environmental and biological importance. Adjoining it, and in fact forming part of the service area, are a number of protected natural spaces taking up an area of approximately 12,000 hectares, of which 560 hectares are located within the Port’s service area.

These spaces are operated on several protection schemes such as Nature Areas, Nature Reserves, Biosphere Reserves (MAB Programme), the Wetlands of International Importance on the RAMSAR List, Special Bird Protection Zones (“ZEPAs”) and Community-Interest Locations (“LICs”), and they are as follows:

<table>
<thead>
<tr>
<th>Name</th>
<th>Type of space</th>
<th>Distance to the port</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nature Area – Marismas del Odiel</td>
<td>MAB, RAMSAR, ZEPA, LIC</td>
<td>Partially included</td>
</tr>
<tr>
<td>Nature Area – Estero Domingo Rubio</td>
<td>ZEPA, LIC</td>
<td>0 Km</td>
</tr>
<tr>
<td>Nature Area – Laguna de Palos y las Madres</td>
<td>RAMSAR, LIC</td>
<td>3.2 Km</td>
</tr>
<tr>
<td>Nature Reserve – Isla de Enmedio</td>
<td>MAB, RAMSAR, ZEPA, LIC</td>
<td>1 Km</td>
</tr>
<tr>
<td>Nature Reserve – Marismas del Burro</td>
<td>MAB, RAMSAR, ZEPA, LIC</td>
<td>0 Km</td>
</tr>
</tbody>
</table>
One of these areas is well known as a large environmental space (6.631 hectares) – the Marismas del Odiel Nature Area, which is an official Biosphere Reserve, ZEPA Zone and LIC location, and is also on the RAMSAR List. It contains two Nature Reserves: Isla de Enmedio and Marismas del Burro.

Part of this Nature Area is within the Port’s Service Area and takes up an area of 562 hectares, specifically the right bank of the Odiel Estuary, which does not have any port operations. This means there is a close link between management of this nature area and the Port Authority, as it forms part of its Trust and the projects ongoing in this space. This includes the 2011 European Sustainable Tourism Charter, with several projects to protect environmental and cultural heritage carried out by the Huelva Port Authority. The projects were as follows:

- Environmental recovery of port marshes.
- Creation of an environmental trail along the pedestrian path on Avenida Francisco Montenegro.
- The Las Cocheras social and cultural centre.
- The Huelva Port Archive’s cultural dynamisation programme.
- The Huelva Port Reception Centre’s programme of guided tours.

The ecological value of the Odiel “marismas” or marshes is that they are ecosystems consisting of estuary, tidal and continentalised marshlands, and high-productivity coastal sands, a strategic location for birds to nest and migratory birds to breed, with a large variety of habitats and landscapes.

This Nature Area was declared a Biosphere Reserve in 1983, and is the habitat of protected species such as the spoonbill, the grey heron, the purple heron, the western marsh harrier, the osprey, the flamingo, the black stork and the otter, among others.
Characterisation and inventories of the natural media in the port and adjoining areas. In particular, the availability of an underwater bionomic cartography of the port’s water (A_27)

As already mentioned, the Huelva Port service area is located among tidal and estuary systems with a considerable ecological value. This circumstance has enhanced the Port Authority’s environmental performance as a basis for equilibrium and co-existence of the port’s development and natural conservation.

This also means that any courses of action planned by the Port Authority call for exhaustive surveys and inventories of natural habitats, in the port area and the surrounding spaces, with studies of Community-Interest Habitats, protected species, the bottom of the estuary, etc.
Schematic description of projects to regenerate the natural environment undertaken by the Port Authority, and valuation of the cost of these projects in euros (A_28)

The Port Authority has undertaken a project to preserve habitats, ecological values and social usages in the marshlands, sand dunes and the beach at Huelva Port, an area which suffered environmental damage in the 1960s due to industrialisation. Various courses of action have been taken to monitor and improve the situation, such as the following:

1. A boost to plant diversity in the port marshes by adding (seeds and seedlings) new high-interest endangered autochthonous halophyte species from nearby marshes (e.g. Inula chrithmoides L., Aster tripolium L., Limonium sp., Frankenia sp. etc.).

2. Monitoring of plant communities in low, medium and high marshlands, focusing on endangered species (Zostera noltii and Spartina maritima) and exotic invasive species (Spartina densiflora). This is providing results of trends in cover, ecological diversity and total biodiversity of species in the marshlands studied, and abiotic characteristics for the purposes of comparison with previous results.

3. Study of bird distribution in relation to vegetation and the characteristics of the abiotic medium along the tidal gradient in restored port marshes during their maturity period.
Eco-efficiency

**Use of land (A_29)**

The percentage of the service area, defined in accordance with the Port Spaces Utilisation Plan, occupied by active facilities either run by the port or operated as concessions (4,996,875 m²), is 29.12% of the total area (17,161,871 m²). However, if we are referring to the 7,094,157 m² of usable surface area (less the 10,067,714 m² of marshland), this percentage rises to 70.43%.

**Water consumption (A_30)**

Management of the Port’s water supply 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:

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumption in m³</td>
<td>71,146.00</td>
<td>96,642.00</td>
<td>144,101.00</td>
</tr>
<tr>
<td>Service zone surface area in m²</td>
<td>17,161,871</td>
<td>17,161,871</td>
<td>17,161,871</td>
</tr>
<tr>
<td>Ratio m³/m²</td>
<td>0.00415</td>
<td>0.006</td>
<td>0.009</td>
</tr>
</tbody>
</table>

There are different uses throughout the year:

<table>
<thead>
<tr>
<th>Sources of consumption (m³)</th>
<th>2,018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic/offices</td>
<td>16,005.00</td>
</tr>
<tr>
<td>Watering areas of greenery</td>
<td>92,534.00</td>
</tr>
<tr>
<td>Dust-prevention watering systems (only if they belong to the Port Authority)</td>
<td>35,510.00</td>
</tr>
<tr>
<td>Other uses</td>
<td>52.00</td>
</tr>
<tr>
<td>TOTAL</td>
<td>144,101.00</td>
</tr>
</tbody>
</table>
Trend, 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)

<table>
<thead>
<tr>
<th>Network efficiency in %</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

Some mention should be made of the major effort by the Huelva Port Authority in its environmental protection undertaking, and to this end we have a 100% system efficiency commitment to prevent potential water losses.

Electricity consumption (A_32)

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:

<table>
<thead>
<tr>
<th>Consumption in Kwh</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4,584,293.51</td>
<td>4,063,025.7</td>
<td>5,289,249.42</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Service zone surface area in m2</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>17,161,871</td>
<td>17,161,871</td>
<td>17,161,871</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ratio  Kwh/m2</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.27</td>
<td>0.23</td>
<td>0.30</td>
</tr>
</tbody>
</table>

Electricity at Huelva Port is distributed via various infrastructures operated by ENDESA Distribución. As of 1 July 2009, following the introduction of Decree-Law 485/2009 of 3 April, operators working in the Port Authority service area may arrange to purchase electricity from the market vendor they prefer.

Consumption increased compared to previous years following the addition of the new Waterside Promenade, which has a high energy demand for its lighting and pumps for watering greenery.

Monitoring of the electricity-saving measures introduced in recent years shows savings at the main office of over 26%, specifically, savings of over 100,000 KWh per year, and of over 30 tonnes of CO2 released into the atmosphere. Cumulative savings between 2013 and 2018 stood at 199,247 KWh. With respect to the benchmark year 2013 (before energy efficiency measures were introduced), 43,235 KWh were saved in 2018.
With respect to savings on road lighting since energy-saving measures were introduced in 2014, cumulative savings topped 1,300,000 KWh. With respect to the benchmark year 2014, savings in 2018 totalled more than 400,000 KWh.

Consumption supplied by the HPA and charged to its contracts, 56,449.96 KWh in 2018, is not included as internal consumption and is billed to the consumers.

**Fuel consumption (A_33)**

The total annual consumption of fuel over the last three years 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:

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total fuel consumption in m3</strong></td>
<td>27,568</td>
<td>40,750</td>
<td>27,573</td>
</tr>
<tr>
<td><strong>Service zone surface area in m2</strong></td>
<td>17,161,871</td>
<td>17,161,871</td>
<td>17,161,871</td>
</tr>
<tr>
<td><strong>Ratio m3/m2</strong></td>
<td>0.0000016</td>
<td>0.0000024</td>
<td>0.0000016</td>
</tr>
</tbody>
</table>

It should be pointed out that a one-off rise in fuel consumption was observed in 2017 due to the occasional use of 2 diesel generators in the course of that year to produce electricity while the required power output was being secured by the electricity company to pump water to be used on the new areas of greenery around the Waterside Promenade. When this had been regularised, consumption returned to normal levels in 2018, as the table shows.

**Consortium of Finance in 2018:**

<table>
<thead>
<tr>
<th>Type of fuel</th>
<th>% of total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Petrol</td>
<td>12.5%</td>
</tr>
<tr>
<td>Diesel</td>
<td>87.5%</td>
</tr>
</tbody>
</table>

**Consumption of Fuel by Usages in 2018:**

<table>
<thead>
<tr>
<th>Sources of consumption</th>
<th>% of total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vehicles</td>
<td>97.2%</td>
</tr>
<tr>
<td>Generators</td>
<td>2.8%</td>
</tr>
</tbody>
</table>
Port community

The Huelva Port service area features some very different activities. Some of these are purely industrial, others are associated with industries, and others are 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 procedures for the activity when its category so requires.
Environmental management systems at port facilities (A_35)

In relation to the level of implementation of environmental management systems in the Port Community, the Port Authority does not have a specific system to ascertain the level of implementation of environmental management systems by service providers and goods terminals. Agreements on good environmental practices that are signed to secure allowances on activities for better environmental management are a useful device for gaining an insight into the level of implementation of environmental management systems at port facilities; in 2018 the Huelva Port Authority renewed the four good practices agreements with DECAL, CEPSA, ENAGÁS and Atlantic Copper, signed a new agreement with IMPALA TERMINALS, and is also now engaged in conversations with another company to draw up agreements to sign a new accord in 2019.