

Reference year 2024

# ENVIRONMENTAL BULLETIN OF RODOS “DIAGORAS” AIRPORT (RHO)

Issue Year: 2025

Fraport Regional Airports of Greece B.S.A.



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# 1. INTRODUCTION

## 1.1 Location

Rodos “Diagoras” Airport is located on the island complex of the Dodecanese, on the north-west part of Rhodes island.

## 1.2 Administration

The airport administratively belongs to the Municipal Unit (MU) of Petaloudes of the Municipality of Rhodes of the Region of South Aegean, at a distance of approximately 14km to the south-west of the town of Rhodes. The airport is extended to two Local Communities (LC) of the MU of Petaloudes: LC Kremasti and LC Paradeisio.

## 1.3 Environmental licensing

### Approved Environmental Terms

E.T. Decision Reference number	32648/04.11.1994
	100425/ 17.01.2006
	23983/11.05.2016
E.T. Amendment Decision Reference Number	37974/07.12.2017
	6304/20.03.2018
	72087/2629/09.01.2019
	116015/7663/07.11.2022
	53078/3701/17.05.2024

## 1.4 Airport Basic Data

Airport name IATA / ICAO	RHO / LGRP
Airport location – Airport Reference Point (ARP)	Latitude: 36° 24' 19" N Longitude: 28° 05' 10" E
Altitude	5,73m
Number of runways	1
Operation hours (summer)	00:00 – 23:59
Operation hours (winter)	00:00 – 23:59



Runways	Length/Width	Code			
Runway	3,305m x 45.0m	07/25			
Full length of parallel taxiway	A: 1,000m, F: 1,700m				
Number of taxiways	4 (B,C,D,E)				
Apron capacity	A	B	C	D	E
	-	-	13	-	2 (MARS)



Terminal	
Total area (m <sup>2</sup> )	49.478



Other buildings and service/storage areas	
RFF Station (m <sup>2</sup> )	1.470



Parking Areas	
Car parking spaces	286
Bus parking spaces	49
Taxi parking spaces	45



Employees	High season (31.08.2024)	Low season (30.11.2024)
Fraport Greece (FG) employees	72	64
Employees of other companies	1.912	1.327

## 1.5 Airport facilities

### 1.5.1 Fuel Handlers

#### *Number of fuel handler companies*

<i>Number of fuel handler companies operating at the Airport</i>	2
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<i>Installations inside the airport</i>	<i>EKO</i>	<i>GISSCO</i>	<i>HAFCO</i>
<i>Environmental Management System (EMS)</i>	YES	YES	Not operating at the airport

### 1.5.2 Ground Handlers

#### *Number of ground handler companies*

<i>Number of ground handler companies operating at the Airport</i>	3
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<i>Installations inside the airport</i>	<i>SKYSERV</i>	<i>SWISSPORT</i>	<i>GOLDAIR</i>
<i>Environmental Management System (EMS)</i>	YES	YES	YES

## 2. TRAFFIC DATA STATISTICS

### 2.1 Annual Traffic Data

#### Annual Traffic Data for the year 2024



Overall Annual Air Traffic Movements<sup>1</sup>  
**46.714**



Annual passenger traffic  
**6.921.748**



Annual cargo transferred (tn)  
**232**

Percent of increase or decrease in relation to the previous year



**8,4%**



**12,7%**



**-18%**

<sup>1</sup> Military and training flights not included.

#### Aircraft types

##### Prevailing aircraft types for domestic flights

Aircraft type	No. of flights
A320	3.303
AT45	1.198
A321	1.020
A20N	848
DH8A	672
A21N	466
AT46	266
B738	207
P28A	131
C550	50
Other	504

##### Prevailing aircraft types for international flights

Aircraft type	No. of flights
B738	17.791
A320	9.470
A321	2.832
A20N	2.326
A319	1.259
A21N	1.158
B737	396
BCS3	292
B788	196
B739	178
Other	2.201

### 2.2 High season traffic data

#### High season traffic data (June-September)

Highest traffic month	August
Air traffic movements during the month with highest traffic	8.078
Air traffic movements daily average number during the month with highest traffic	261

### 2.3 Low season traffic data

#### Low season traffic data (October-May)

Lowest traffic month	December
Air traffic movements during the month with lowest traffic	607
Air traffic movements daily average number during the month with lowest traffic	21

# 3. AIRCRAFT NOISE

## 3.1 Noise measurements during the reference year

### Noise Monitoring Stations



Have noise measurements at the airport's surrounding area been performed during the reference year? **YES**

### Summary of measurement results

Noise levels are monitored according to the airport's monitoring program.

No exceedance of the noise indicators levels  $L_{den}=70$  dB(A) and  $L_{night}=60$  dB(A) was observed. During the peak period in 2024, in July, 3 exceedances were recorded at station MP02 for  $L_{night}$ , less than 1 dB(A), which are considered negligible.

MP01:  $L_{den}=61,7$  dB(A) &  $L_{night}=53,7$  dB(A)  
 MP02:  $L_{den}=63,5$  dB(A) &  $L_{night}=54,3$  dB(A)

Measurement points coordinates	Measurement points description
MP01: 36° 24' 00.91" N 28° 05' 02.80" E	Paradisi area, south of the runway on the balcony of a house. Affected by all flights o and from both directions.
MP02: 36° 24' 50.85" N 28° 06' 45.72" E	Kremasti area, east of RWY 16/34 on a hotel rooftop. Affected by arrivals RWY 25 and departures RWY 07.
Measurement period	01.01.2024 – 31.12.2024*
Noise indicators	$L_{den}$ , $L_{night}$

\* The operation of NMTs was suspended on 21/11/2024 in order to calibrate the sound level meters to an accredited laboratory.

Noise complaints: 0

## 3.2 Noise levels calculation based on noise simulation software

*Aircraft noise levels calculation based on noise simulation software*

*NO*

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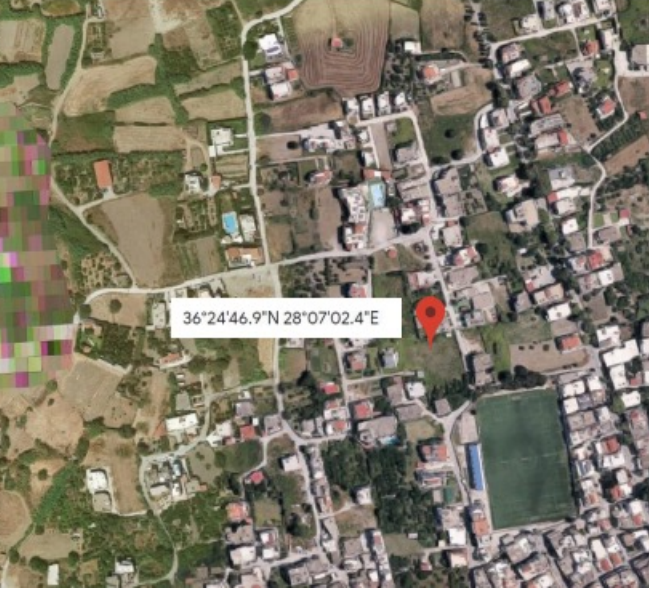
### Summary of results

The preparation of a simulation model for the year 2024 is foreseen, in accordance with the approved Environmental Terms.

# 4. AIR QUALITY

## 4.1 Air quality measurements during the reference year

### Measurement points



Have air quality measurements at the airport's surrounding area been performed during the reference year? **YES**

Measurement points	Measurement points description
Position: 36° 24' 44.8" N 28° 07' 01.6" E	Kremasti area, east of RWY 16/34 on a hotel rooftop. Affected by arrivals RWY 25 and departures RWY 07.
Measurement period	01.01.2024 – 31.12.2024
Pollutants measured	PM <sub>10</sub> , PM <sub>2.5</sub> , NO <sub>2</sub> , SO <sub>2</sub> , C <sub>6</sub> H <sub>6</sub> , O <sub>3</sub>

### Summary of results

Air quality is monitored according to the airport's monitoring program.

No exceedance of the air quality limits was observed.

## 4.2 Air pollutants emission and dispersion modelling

Calculation of air pollutants concentrations based on an emission and dispersion modelling software

YES

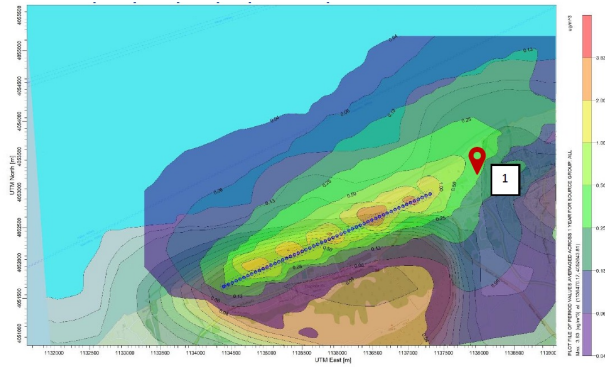
Software used

Aviation Environmental Design Tool (AEDT) - US Federal Aviation Administration & US Environmental Protection Agency AERMOD

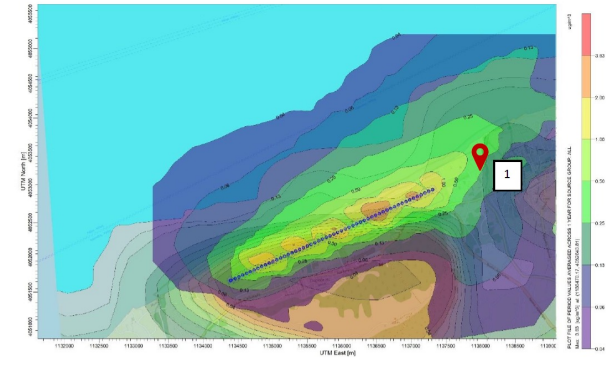
Pollutants concentrations and respective contours calculation

$PM_{10}$ ,  $PM_{2.5}$ ,  $NO_x$ ,  $SO_x$ ,  $C_6H_6$ ,  $CO$ ,  $CO_2$

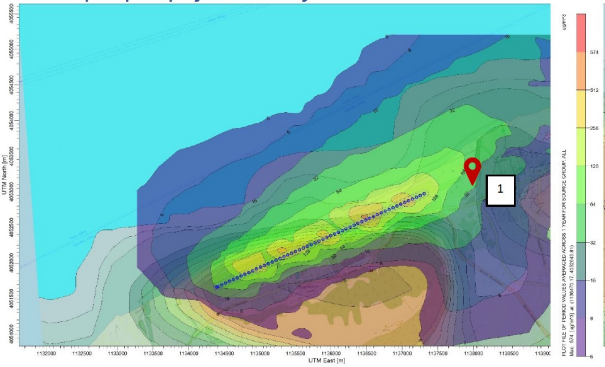
**PM<sub>10</sub>**



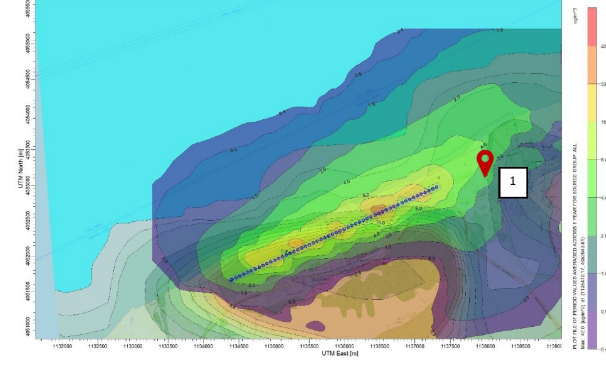
**PM<sub>2.5</sub>**



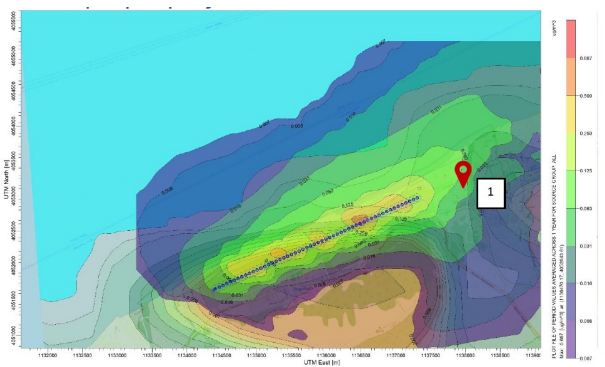
**NO<sub>x</sub>**



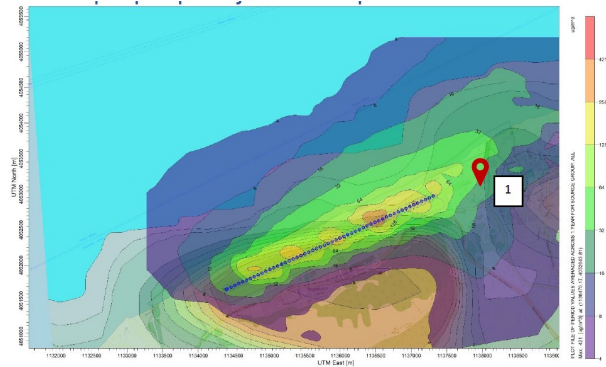
**SO<sub>x</sub>**



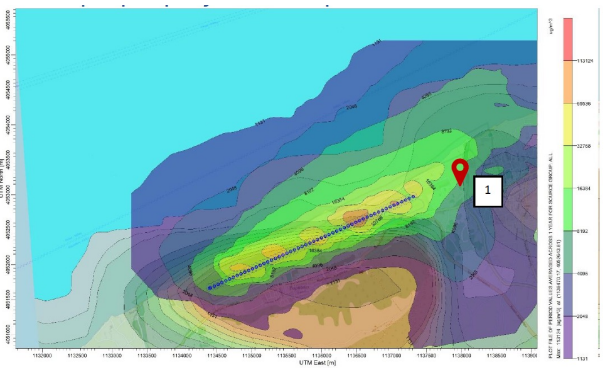
**Benzene (C<sub>6</sub>H<sub>6</sub>)**



**CO**



**CO<sub>2</sub>**



### Summary of results

Air quality is monitored according to the airport monitoring program.

No exceedance of permitted limits is observed.

## 5. WASTE MANAGEMENT

<i>Waste</i>	<i>Collection</i>	<i>Management/Disposal</i>
<i>Recyclables (paper, plastic, metals, glass)</i>	<i>Separate collection by licensed private company.</i>	<i>Disposal at material recovery facility for recycling</i>
<i>Residues (Mixed Waste) and Bulky Waste</i>	<i>Collection by licensed private company.</i>	<i>Disposal in the municipal sanitary landfill of Northern Rodos</i>

### Notes:

1. Regarding the different categories of the MSW (recyclables, mixed waste, bulky waste), the Airport Users handle their waste together with Fraport Greece B (central management).
2. Regarding the “alternative management’ waste categories (Waste lubricant oil WLO, WEEE, etc.):
  - i. Waste Lubricant Oil (WLO): Collection and management by authorized collector “CYTOP S.A.”
  - ii. Waste Electrical & Electronic Equipment (WEEE): Collection and management by alternative management system “Appliances Recycling S.A.”
  - iii. Accumulators: Collection and management by alternative management system “Re-Battery S.A.”
  - iv. Small batteries: Collection and management by alternative management system “AFIS S.A.”
  - v. Used tires: Collection and management by alternative management system “ECOELASTIKA S.A.”
3. The total quantities of the hazardous waste further to the above-mentioned and produced at the airport, are managed by licensed private companies which have a contract with Fraport Greece B, after tender process according to the provisions of the legislation in force.
4. In the year 2024, Fraport Greece B in RHO managed a total of 126,68 tons of Hazardous waste (RHO FG B 117,43 tn, third parties 9,25 tn).
5. The total quantities of the produced waste by category resulting from all activities of the airport, the collectors and final recipients, are recorded by Fraport Greece B and submitted in the Electronic Waste Registry of the Ministry for Environment and Energy via the Annual Waste Producer Report according to the provisions of the legislation in force.

## 6. ECOSYSTEM AROUND THE AIRPORT

### 6.1 Flora – Fauna



#### Flora

Are there protected zones of vegetation/habitats in the broader airport area?

YES

(if YES) Short description: Rodos Airport “Diagoras” is near to the Natura 2000 site:

• GR4210006 Rodos: Profitis Ilias - Epta Piges B– Petaloudes – Remata (Area:11,312.41ha)



#### Fauna

Are there protected species of fauna/birds in the broader airport area?

YES

(if YES) Short description: Rodos Airport “Diagoras” is close to the

• Important Bird Area GR171 Western, eastern and southern Rhodes (Area: 29,468.26ha)

• Important Marine Mammal Area Central Aegean (Area: 5.826.500 ha) where the species *Monachus monachus* is recorded

• Important Marine Mammal Area Hellenic Trench (Έκταση: 5.660.000 ha) where the species *Physeter microcephalus* and *Ziphius cavirostris* are recorded

The protected bird species (listed under Annex I of Directive 2009/147/EC) that have been observed at Rodos broader airport area since April 2017 are presented below:

Black crowned night heron (*Nycticorax nycticorax*), Black kite (*Milvus migrans*), Black winged stilt (*Himantopus himantopus*), Bonelli's eagle (*Aquila fasciata*), Collared pratincole (*Glareola pratincola*), Cretzschmar's bunting (*Emberiza caesia*), Eleonora's falcon (*Falco eleonora*), Eurasian sparrowhawk (*Accipiter nisus*), Eurasian stone-curlew (*Burhinus oediacnemus*), European honey buzzard (*Pernis apivorus*), European kingfisher (*Alcedo atthis*), European nightjar (*Caprimulgus europaeus*), European roller (*Coracias garrulus*), Glossy ibis (*Plegadis falcinellus*), Golden plover (*Pluvialis apricaria*), Greater short-toed lark (*Calandrella brachydactyla*), Hen harrier (*Circus cyaneus*), Lesser grey shrike (*Lanius minor*), Lesser kestrel (*Falco naumanni*), Little bittern (*Ixobrychus minutus*), Little egret (*Egretta garzetta*), Long-legged buzzard (*Buteo rufinus*), Marsh harrier (*Circus aeruginosus*), Masked shrike (*Lanius nubicus*), Mediterranean gull (*Larus melanocephalus*), Montagu's harrier (*Circus pygargus*), Pallid harrier (*Circus macrourus*), Purple heron (*Ardea purpurea*), Red-backed shrike (*Lanius collurio*), Red-footed falcon (*Falco vespertinus*), Ruff (*Philomachus pugnax*), Sandwich tern (*Sterna sandvicensis*), Short-eared owl (*Asio flammeus*), Short-toed snake eagle (*Circaetus gallicus*), Spur winged lapwing (*Vanellus spinosus*), Squacco heron (*Ardeola ralloides*), Tawny pipit (*Anthus campestris*), White stork (*Ciconia ciconia*), Wood sandpiper (*Tringa glareola*).

## 7. WILDLIFE HAZARD MANAGEMENT

### Wildlife strikes and wildlife hazard management measures

Wildlife species that suffered a strike	Strikes (%)
Small passerines	67%
Waders	25%
Gulls	8%

### Wildlife strike risk mitigation measures

The presence and behavior of wildlife species at Rodos airport is monitored in regular intervals, daily, from dawn to dusk. Some of the wildlife control methods applied at Rodos airport are distress calls (bioacoustics), digital sounds, anti-bird laser, etc. Preventive long-term actions that are mainly related to habitat management measures (e.g. grass cutting, water body management) are also taken to further reduce the presence of hazardous wildlife species constituting a risk to flight safety. In addition, a NOTAM is published and regularly updated.

## 8. CULTURAL HERITAGE

*Have new cultural heritage properties been discovered during the reporting period?*

NO

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# 9. RESOURCES CONSUMPTION



## 9.1 Energy consumption

### Energy consumption (monthly electric energy consumption, in Kwh)

Total annual electric energy consumption (in Kwh)	9.297.840,04*
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\*Third parties' consumption is excluded.



## 9.4 Fuel consumption for generator

### Fuel consumption

Total annual consumption (lt)	6.235,37
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## 9.5 Water consumption

### Water consumption

Total annual consumption (m <sup>3</sup> )	59.857,32*
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\*Missing consumption bills of the last quarter.



## 9.2 Fuel consumption

### Fuel consumption

Number of FG vehicles at the airport	23	
Total annual fuel consumption	Diesel (lt)	24.361,17
	Unleaded gasoline (lt)	9.959,39



## 9.3 Heating oil or natural gas consumption

### Heating oil or natural gas consumption

Total annual heating oil consumption (lt)	2.000,00
Total annual heating natural gas consumption (m <sup>3</sup> )	N/A

# 10. GREENHOUSE GAS EMISSIONS & CARBON FOOTPRINT

Greenhouse gas emissions that were included in the carbon footprint calculation are the CO<sub>2</sub>, CH<sub>4</sub> & N<sub>2</sub>O emissions included in scope 1 & 2 of the GHG protocol:

- Scope 1: Direct GHG emissions that occur from sources that are owned and/or controlled by the airport,
- Scope 2: Indirect GHG emissions from the generation of purchased electricity, steam, heat or cooling consumed by the airport.

Source Flows	Total CO <sub>2</sub> e Emissions (t) 2024	
	Location based	Market based
Direct emissions from heating fuel (scope 1)	5,3	5,3
Direct emissions from fuel used for fleet vehicles (scope 1)	88,6	88,6
Direct emissions from WWTP (scope 1)	12,9	12,9
Direct emissions from fuel used for generators (scope 1)	16,4	16,4
Direct emissions from refrigerants (scope 1)	214,5	214,5
Indirect emissions from electricity consumption (scope 2)	4.654,7	3.400,3
<b>Total (t)</b>	<b>4.777,8</b>	<b>3.523,4</b>
<b>Kg CO<sub>2</sub>e /passenger</b>	<b>0,69</b>	<b>0,51</b>

## Notes

Fraport Greece B is committed to the monitoring, management and reduction of its airports carbon footprint.

In order for this target to be achieved:

- Direct and indirect carbon emissions from all the emission sources in the airports' boundaries are calculated and reported, based on the GHG Protocol (scope 1 & 2)
- The airport is certified according to ACA (Airport Carbon Accreditation), Level-1.

# 11. HUMAN CONSUMPTION WATER MONITORING PROGRAM

## Human consumption water quality

Water supply (public water network or airport's boreholes)	Municipal Water & Sewage Company (DEYA) of Rodos
Is sampling of the airport's water network performed?	YES
(if YES) Sampling frequency	Quarterly

## Summary of results

The results of the microbiological and chemical analyses show that the water of the airport's network is occasionally non potable due to high concentrations of chlorides. The rest of the parameters analyzed as regards the airport's water network are within the legislative limits defined by the Ministerial Decision Δ1 (δ)/ΓΠ οικ. 27829/2023 (ΦΕΚ 3525/Β` 25.5.2023) regarding the quality of human consumption water.

## 12. RAINWATER

### RAINWATER (collection, treatment disposal and recipient)

Area	Collection/treatment/disposal	[YES/ NO]
Apron and manoeuvring area	Collected in drainage ditches leading to the sea	YES
Other runoffs (runway etc.)	Collected in drainage ditches leading to the sea	YES
Treatment of rainwater by oil-separator		NO

### Rainwater quality

Is sampling of the airport's rainwater performed?	YES
(if YES) Sampling frequency	Yearly
Parameters analyzed: pH, conductivity, TSS, DO, NO <sub>3</sub> , NO <sub>2</sub> , Oil & grease, BOD, COD, Total Petroleum Hydrocarbons (TPH), PAHs, BTEX, Heavy metals, Detergents	

### Summary of results

Surface rainwater quality is monitored according to the airport's monitoring program. Due to the absence of designated recipients and relevant national quality limits for surface rainwater, the Environmental Health & Safety Guidelines of the International Finance Corporation (IFC) are adopted. Surface rainwater monitoring for 2024, was performed. The results are considered satisfactory, but the presence of hydrocarbons (C<sub>10</sub>-C<sub>4,0</sub> mg/l) is recorded, and the monitoring of the phenomenon will continue.

# 13. GROUNDWATER AND/OR SOIL AND/OR SOIL GAS MONITORING



## Groundwater and/or soil and/or soil gas quality

Is sampling of the airport's groundwater and/or soil and/or soil gas performed?	YES
(if YES) Sampling frequency	Yearly
<i>Parameters analyzed: Groundwater: TPH, BTEX, MTBE, pH, conductivity, TSS, DO, NO<sub>3</sub>, NO<sub>2</sub>, oil and grease, BOD, COD, PAHs, heavy metals (As, Pb, Cd, Cr, Ni, Hg, Al), chlorine ions, sulphate ions (groundwater) and Volatile hydrocarbons, aliphatic, aromatic and chlorinated (soil gas)</i>	

## Summary of results

### Groundwater monitoring within airport boundary - Fraport Greece

Groundwater quality is monitored according to the airport's monitoring program from boreholes managed by Fraport Greece. For the year 2024, only one point was sampled, due to the absence of water in the others points. The results do not record exceedances in petroleum products, but they do record high values in some heavy metals, as a result of which a Special Substratum Study is required.

### Groundwater and/or soil and/or soil gas monitoring at fuel farms – Fuel Handlers

According to the approved environmental terms, monitoring of groundwater, underground air and soil from the Fuel Handlers was performed by EKO (2024) and GISSCO (2024). The results are satisfactory, and no exceedances recorded.

# 14. SEWAGE TREATMENT AND DISPOSAL

**Sewage**

<i>Sewage network to the municipal wastewater treatment plant (WWTP)</i>	NO
<i>Autonomous airport’s wastewater treatment plant (WWTP)</i>	YES*

\* The airport’s wastewater is collected through an integrated sewerage network and is led to WWTP within the airport. The outflow of the WWTP of the airport led to the WWTP of the Rhodes DEYA through the municipal network. No exceedances were recorded in the year 2024. In December 2024, due to local floods, there was damage to the municipal pipeline for the transport of treated wastewater of the airport’s treatment plant outside its boundaries, which transports the treated wastewater to the WWTP of Kremasti. Until its restoration in February 2025, in consultation with the competent DEYAR, the treated effluent was transported by tanks to the WWTP indicated.

**Blue water**

*Collection and disposal:  
Collection in a tank on the site of the WWTP and disposal within the WWTP of the airport for further treatment.*

**Waste water treatment plant description (where applicable)  
Description of characteristics and condition of the airport’s WWTP including possible problems. Type and frequency of the effluent quality measurements**

<i>Degree of treatment of airport’s WWTP</i>	Secondary treatment & chlorination
<i>Treatment method</i>	Prolonged ventilation
<i>Disposal of treated wastewater</i>	WWTP of Municipal Water & Sewage Company (DEYA) of Rodos
<i>Sludge disposal</i>	Sanitary Landfill
<i>Sampling frequency of WWTP effluent</i>	Monthly
<i>Parameters analyzed</i>	BOD, COD, SS, TN,TP, T. Coliforms, E.Coli, pH, Residual Cl <sub>2</sub>
<i>Summary of quality of WWTP effluent</i>	The WWTP effluent quality is within the limits set out in JMD 5673/400/1997

Contact

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