

ENVIRONMENTAL VALORISATION AND COMPENSATION PLAN

Monte Gordo Sand Race

27 to 29 November 2026

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1. Background

From 27 to 29 November 2026, the Municipality of Vila Real de Santo António, in partnership with the Automóvel Club de Portugal (ACP) and under the auspices of the Fédération Internationale de Motocyclisme (FIM) and the Portuguese Motorcycling Federation (FMP), will host the Monte Gordo Sand Race. The event is the fourth of five rounds of the 2026–2027 FIM Sand Races World Championship.

The competition will take place over three days. The first day will be set aside for checks and other administrative tasks, with two races on each of the following two days.

The event is scheduled to take place on a circuit of approximately 6 km on Monte Gordo beach (Figure 1), with an estimated 130 motorcycles and quad bikes. Activities open to the public will also take place along the seafront avenue, including a brand exhibition and merchandise sales area and a Fun Zone for the whole family.



Figure 1 – Monte Gordo Sand Race circuit on the beach.

The race area on the beach will include a command post for incident prevention and safety, a timing station and two emergency exits, one at each end of the circuit.

The emergency exits will be set up for an immediate response, with emergency resources available to transport people if required. Outside the beach, near the race area, there will be a service park, an area for riders and organisers to carry out technical repairs, a parc fermé and a service area where a vehicle from the Vila Real de Santo António Volunteer Fire Brigade will be stationed.

This Plan sets out the environmental prevention, mitigation, monitoring and restoration measures applicable to the set-up, running and dismantling of the Monte Gordo Sand Race 2026. It also covers the permanent environmental enhancement measures led by the Municipality.

The priority is to avoid disturbance to dune systems and prevent contamination of sand, water and drainage networks. Environmental enhancement measures complement these safeguards and do not remove the need to remedy any damage caused by the event.

Permanent measures include installing and maintaining infrastructure and carrying out work to restore and protect dune systems along different stretches of the municipal coastline.

The presence of invasive alien species will also be monitored regularly. Removal of Carpobrotus edulis (Hottentot fig) will take place throughout the year in the Vila Real de Santo António Coastal Dunes National Forest (Mata Nacional das Dunas Litorais de Vila Real de Santo António). Schools, associations, parish councils and residents will take part.

To help minimise and offset the greenhouse gas emissions associated with the event, tree and shrub species that are native or well suited to the local soil and climate will be planted in all three parishes of the municipality. Sprinkler systems at the sites will be replaced with more efficient drip or other localised irrigation systems.

Separating waste and recovering materials helps protect the environment, save energy and raw materials, and conserve natural resources. As part of this effort, municipal waste containers will be better distributed throughout the picnic area next to Monte Gordo beach.

In addition to the permanent measures, temporary measures will be implemented to prevent and control potential impacts from activities during the event.

To keep spectators out of the dunes, signs will explain that walking on the dunes is prohibited and that visitors must use the boardwalks. Plastic-coated fencing will also be installed beside the boardwalks to reinforce the boundaries and protect the dune areas.

The quality of beach sand and bathing water will be monitored by testing microbiological parameters and polycyclic aromatic hydrocarbons at three stages: before sand is moved to build the circuit, after the races and after the beach has been regraded.

Waste generated during the event will be managed in partnership with ALGAR – Valorização e Tratamento de Resíduos S.A., which will support municipal waste prevention and reduction, as well as packaging recovery and recycling. Waste from motorcycle maintenance will also be sent for appropriate treatment or disposal.

At the end of each race day, litter in the spectator area and on the circuit will be collected by hand, followed by mechanical beach cleaning. After the event, several mechanical cleaning passes will be carried out before the sand is regraded. The beach will be cleaned again after levelling.

During the races, a team stationed near the circuit will identify and remove any waste left by participants. Sand contaminated with hydrocarbons will be removed and placed in a large-capacity container in the car park to the east of Monte Gordo beach.

Motorcycles will be washed only in the Service Area in the beach car park. Wastewater will pass through an oil separator before discharge into the public sewer.

2. Permanent measures

2.1. Protection and restoration of the dune system

2.1.1 Restoration of beach access at Manta Rota

Deteriorated sections of the boardwalk running along the coast beside the Manta Rota beach car park will be restored. The work will include replacing structural and decking elements as necessary and making good areas of subsidence (Figure 2).

The work will form part of a tender for the general maintenance of beach access routes across the municipality. It aims to improve circulation and accessibility and protect dune vegetation.



Figure 2 – Sections of the boardwalk at Manta Rota to be restored.

2.1.2. Installation of signs to raise awareness of dune protection

During the previous three editions of the event, information boards were installed at all access points to the beaches at Monte Gordo to raise awareness of the importance of preserving the dune system (Figure 3). The boards set out the rules visitors must follow and the fines that apply for breaches.

Information boards at beach access points and in dune areas will be inventoried, replaced and maintained.



Figure 3 – Examples of information displayed at various locations.

2.1.3. Control and removal of Hottentot fig (Carpobrotus edulis)

The main threats to dune systems include trampling, motor vehicle traffic and the spread of invasive alien species such as Hottentot fig (Carpobrotus edulis) and species of the genus Acacia (acacias).

For identification purposes, invasive plants are defined as those that:

i) reproduce independently and in large numbers;
ii) spread beyond their original points of introduction over time, without direct human intervention and regardless of the degree of disturbance to the environment;
iii) reach high densities;
iv) cause environmental changes and/or socio-economic losses, although they may also have positive effects in some contexts.

Hottentot fig is a perennial, creeping succulent with fleshy leaves and stems that can grow several metres long. It produces fleshy fruits that are initially green and turn purple when ripe. They can remain on the plant for several months. The seeds are black and very small, approximately 1 mm in size.

The species forms dense mats over large areas, preventing native vegetation from growing. It can also alter soil conditions, notably by acidifying the soil, which favours its spread.

Following work in previous years, no new areas have been identified for treatment on Monte Gordo beach. However, patches of Hottentot fig remain in the Vila Real de Santo António Coastal Dunes National Forest.

Habitat restoration will continue with the participation of schools, associations, parish councils and the local community. Plants will preferably be removed by hand, taking care not to spread the species to other areas. Wherever possible, work will take place during the rainy season to make the roots easier to remove.

Dune systems will be monitored regularly and systematically to detect and control the appearance or spread of this and other invasive species.

The municipal contractor will periodically collect litter from dune systems next to beaches, particularly around access routes and boardwalks.

2.2. Improvement and restoration of landscaped areas

To help minimise and offset greenhouse gas (GHG) emissions associated with the event and continue the measures set out in previous editions of the Plan, landscaped areas will be improved and sprinkler systems replaced with drip or other localised irrigation systems.

The planned works form part of the application entitled “Climate Change Adaptation – Improvement and Restoration of Landscaped Areas in the Municipality of Vila Real de Santo António”, submitted to the Algarve 2030 Regional Programme under the call “Climate Change Adaptation – ITI CIM-AMAL” (code ALGARVE-2024-36; reference ALGARVE-FEDER-03077900). The application was approved.

Following approval of the application, a tender will be launched for the works, which will include implementing the new planting plans and installing the associated irrigation systems.

The proposed system uses drip irrigation to deliver water directly to the root zone, reducing evaporation losses and improving irrigation efficiency.

Lawns will be replaced with plants suited to the local climate, complemented by inert materials such as white or black crushed stone and rounded pebbles. Species will be chosen for their water requirements, tolerance of local conditions and potential contribution to biodiversity, including support for pollinators.

These changes are intended to reduce irrigation and fertiliser requirements and make landscaped areas more resilient. They will help make more efficient use of water, reduce maintenance and make green spaces more sustainable.

Table 1 – Landscaped areas scheduled for improvement

Location	**Planned works**
Rotunda dos Atuns, Vila Real de Santo António	Replace the lawn with Juniperus horizontalis and Juniperus sabina, with white crushed stone and localised irrigation (Figures 4 and 5).
Rotunda Comandante Sérgio Batista, Vila Real de Santo António	Replace the lawn with Juniperus horizontalis and white crushed stone and adapt the irrigation system (Figures 6 and 7).
Rias Parque residential development, Vila Real de Santo António	The lawns will be replaced with trees including Atriplex halimus, Celtis australis and Cercis siliquastrum, and with shrubs including Nerium oleander (white and red varieties), Metrosideros excelsa, Juniperus horizontalis, Juniperus sabina and Pittosporum tobira (Figures 8, 9 and 10).
Dunamar roundabout, Monte Gordo	Plant Juniperus horizontalis and provide black crushed stone and localised irrigation (Figures 11 and 12).
Planting beds next to the playground, Monte Gordo	The lawn has already been removed from the beds. It will be replaced by shrubs suited to the local climate, including Atriplex halimus and Juniperus horizontalis, with rounded pebbles (Figures 13, 14 and 15).
Rotunda Antigos Combatentes, Vila Nova de Cacela	Shrubs will be planted, including Juniperus sabina, Metrosideros excelsa, Nerium oleander, Rosmarinus officinalis prostratus and Lantana montevidensis lutea, with rounded pebbles (Figure 16).
Rua Eugénio de Andrade, Cacela Velha	Trees will be planted, including Olea europaea and Arbutus unedo, together with shrubs including Atriplex halimus, Helichrysum stoechas, Metrosideros excelsa, Nerium oleander and Rosmarinus officinalis prostratus. Rounded pebbles will also be used (Figure 17).

Parish of Vila Real de Santo António

i) Rotunda dos Atuns



Figure 4 - Images of the Atuns roundabout with grass (2022) and as it is today (without grass).

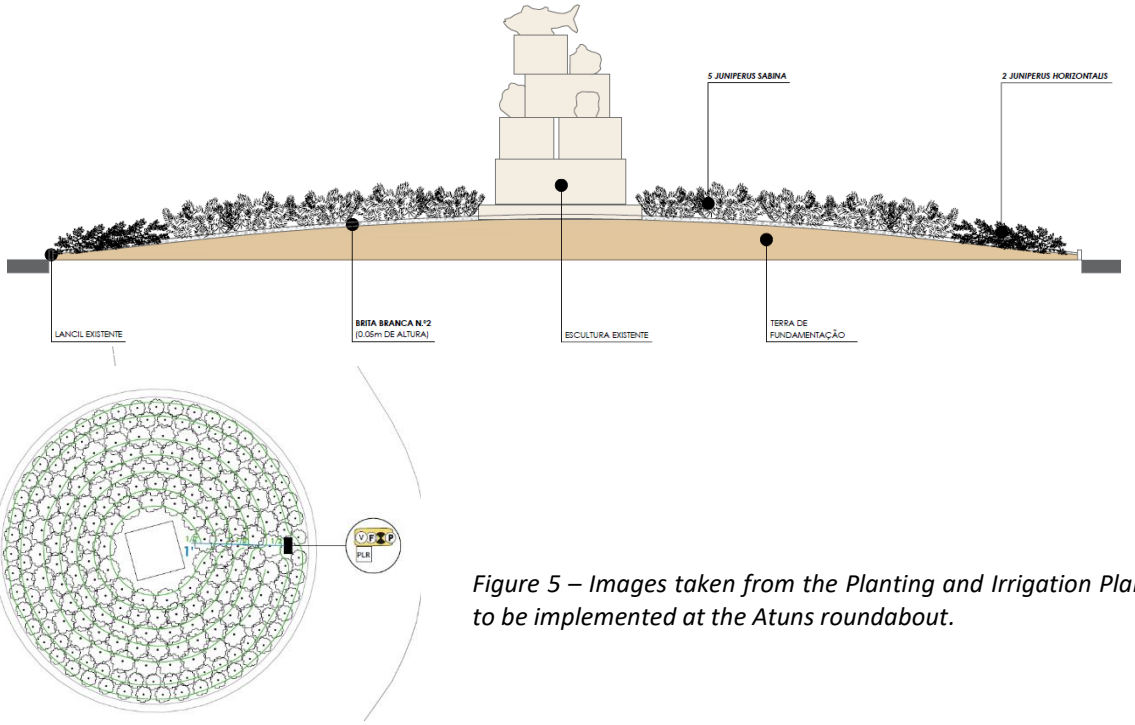

Figure 5 – Images taken from the Planting and Irrigation Plan to be implemented at the Atuns roundabout.

ii) Rotunda Comandante Sérgio Batista



Figure 6 - Images of the Comandante Sérgio Batista roundabout with grass (2023) and as it is today, without

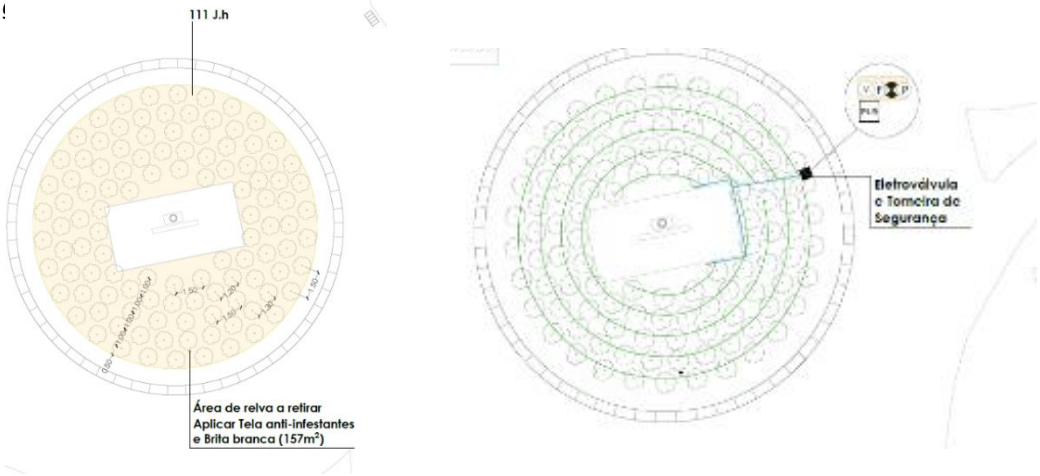

Figure 7 – Images taken from the Planting and Irrigation Plan to be implemented at the Comandante Sérgio Batista roundabout.

iii) Rias Parque residential development



Figure 8 – Areas of the Rias Parque housing estate in Vila Real de Santo António to be developed.



Figure 9 – Images of some green spaces in the Rias Parque housing estate with grass (in 2023) and as they appear today (without grass).

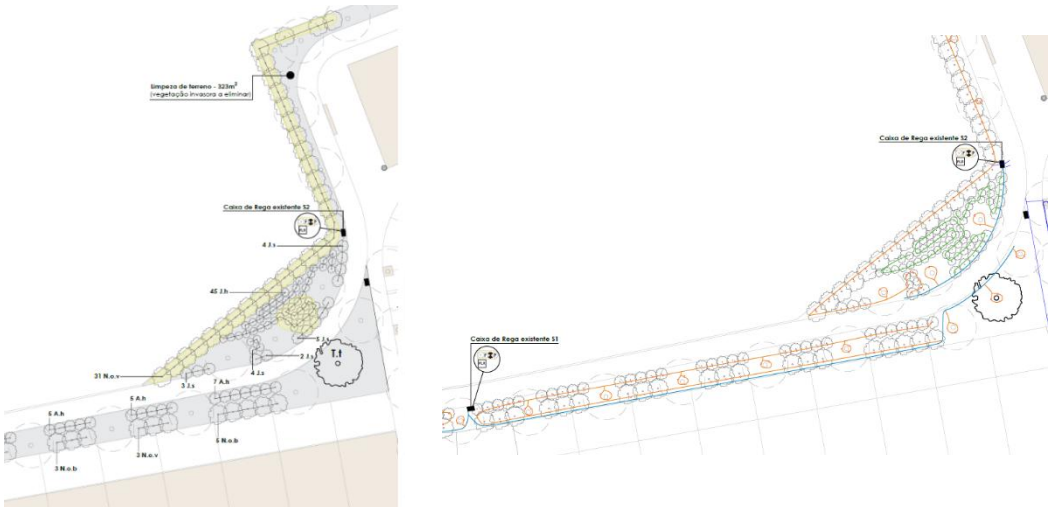

Figure 10 – Images taken from the Planting and Irrigation Plan for one of the areas to be developed at the Rias Parque urban development.

Parish of Monte Gordo

i) Dunamar roundabout



Figure 11 – Images of the Dunamar roundabout with a lawn (in 2020) and, as it stands today, with some grass and white pebbles.

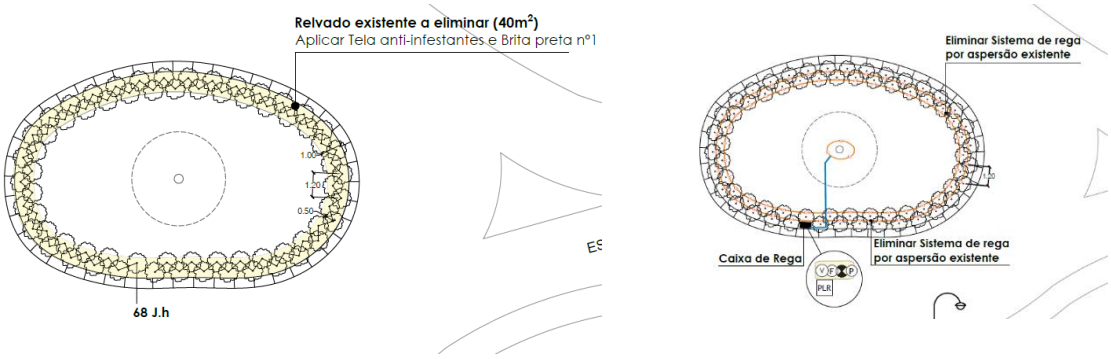

Figure 12 – Images of the planting and irrigation plan at the Dunamar roundabout.

ii) Planting beds east and west of the playground on Avenida Infante D. Henrique



Figure 13 – Flowerbeds to be improved, situated next to the children's playground on Av. Infante D. Henrique, Monte Gordo.





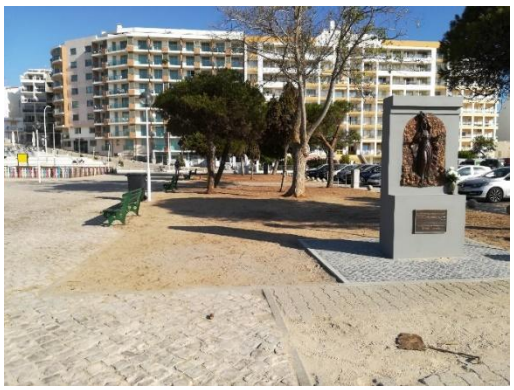



Figure 14 – Images of the flowerbeds next to the children's playground, Av. Infante D. Henrique, Monte Gordo, with the grass removed.

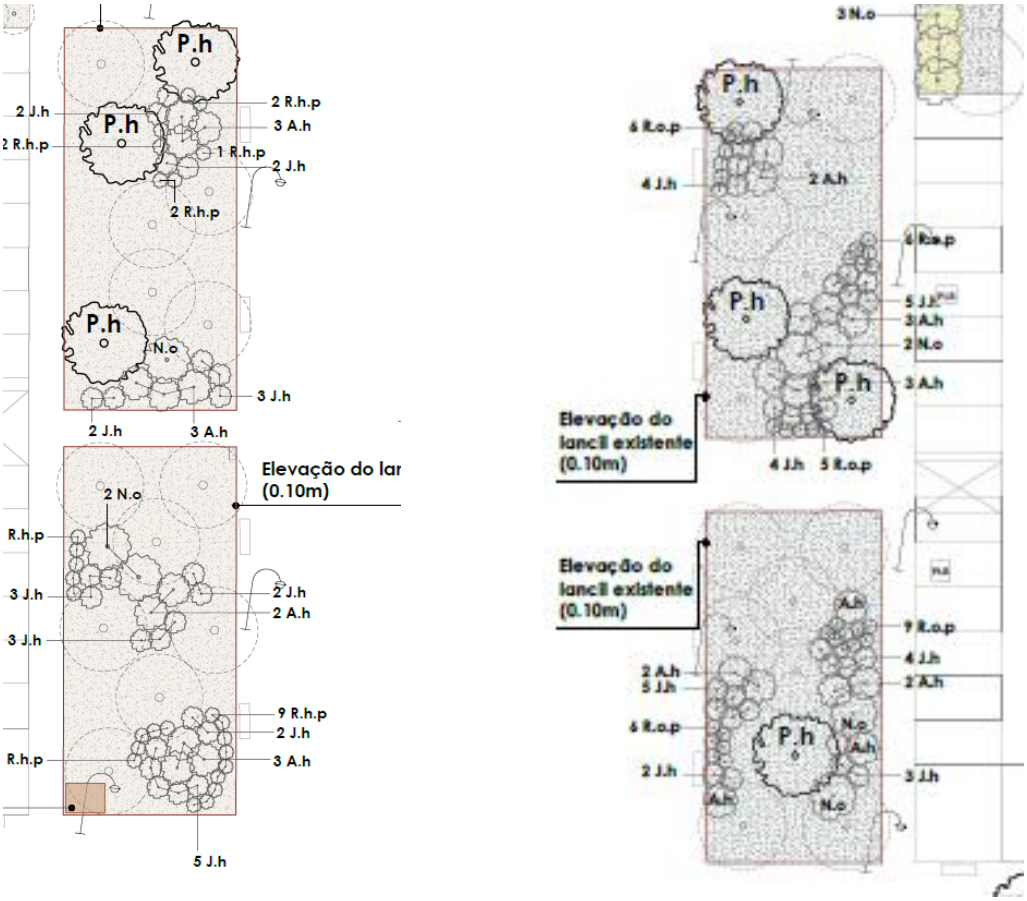

Figure 15 – Images of the planting plan to be implemented in the flowerbeds next to the children's playground on Avenida Infante D. Henrique, Monte Gordo.

Parish of Vila Nova de Cacela

i) Antigos Combatentes da Grande Guerra do Ultramar Roundabout (EN 125)

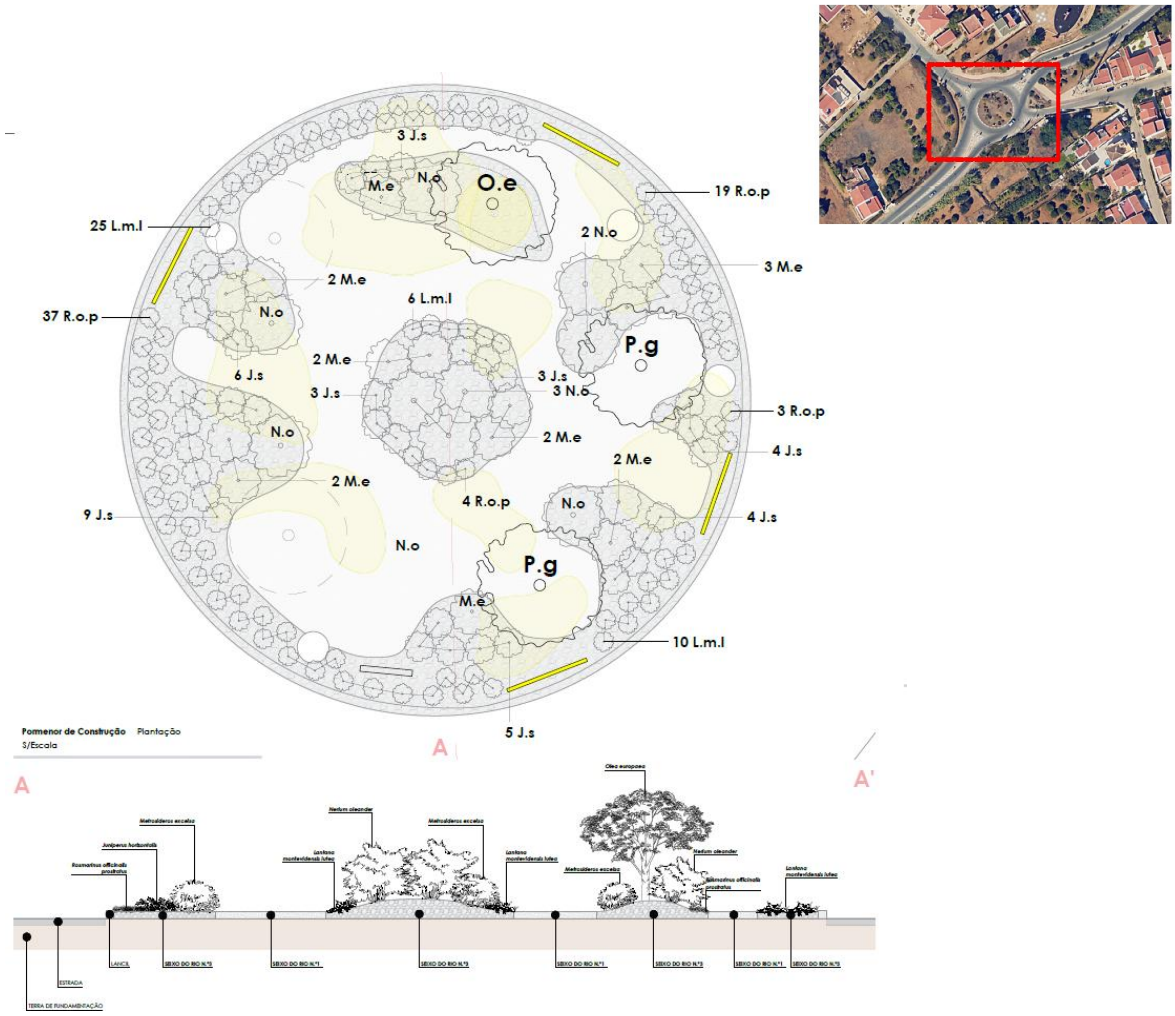

Figure 16 – Image taken from the Planting Plan to be implemented at the Roundabout in honour of Veterans of the Great Overseas War, Vila Nova de Cacela.

ii) Cacela Velha (Rua Eugénio de Andrade)

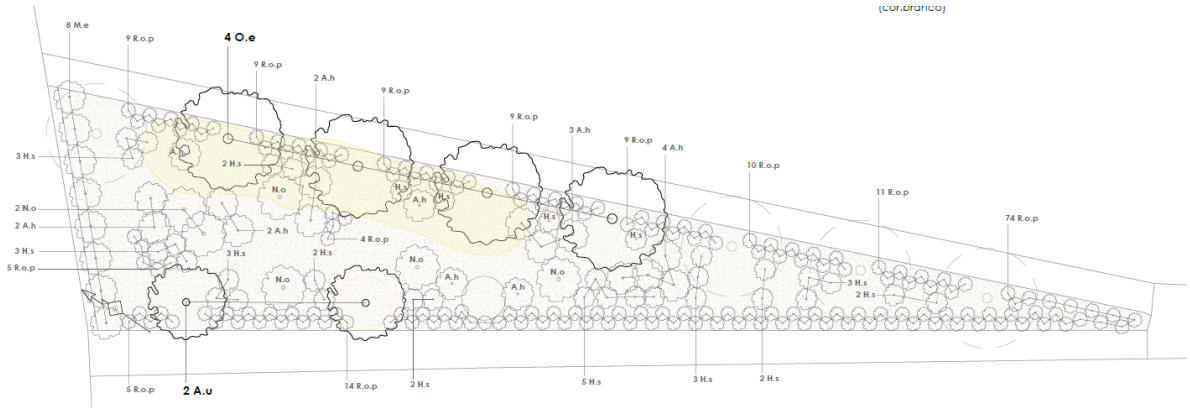

Figure 17 – Image taken from the planting plan to be implemented in the flowerbed on Eugénio de Andrade Street, in Cacela Velha, in the parish of Vila Nova de Cacela.

2.3. Upgrading waste collection facilities in the picnic area next to the Vila Real de Santo António Coastal Dunes National Forest

Waste separation and recovery are essential to protecting the environment and bring both environmental and economic benefits. They save energy and raw materials, conserve natural resources and return packaging materials to the production cycle, supporting a circular economy.

To improve separate collection of packaging waste and standardise the waste facilities throughout the picnic area, which is next to the access to Monte Gordo beach and the Vila Real de Santo António Coastal Dunes National Forest (Figure 18), the bins will be fitted with housings made of 100% recycled plastic (Figure 19).

The work also aims to raise awareness among visitors about separating waste so that packaging can be recycled. This helps reduce demand for virgin raw materials, use resources more sustainably and support a circular economy.



Figure 18 – A view of the Monte Gordo picnic area.

As well as increasing the amount of recyclable waste collected, the work is expected to improve the appearance of the area.



Figure 19 – Image of the structures to be installed at the Monte Gordo picnic area.

3. Temporary measures

3.1. Monitoring the quality of beach sand and bathing water

At the Municipality's request, the ARH Algarve laboratory will assess the quality of beach sand and bathing water by testing microbiological parameters and polycyclic aromatic hydrocarbons (PAHs) (Figure 20).

Sediment and water samples will be collected at three stages: before sand is moved to build the circuit; on the first working day after the event; and after the beach has been regraded.

Polycyclic aromatic hydrocarbons (PAHs) Acenaphthene Acenaphthylene Anthracene Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(g,h,i)perylene Benzo(k)fluoranthene Chrysene Dibenzo(a,h)anthracene	Intestinal enterococci Escherichia coli Intestinal enterococci Escherichia coli Coliform bacteria Phenanthrene Fluoranthene Fluorene Indeno(1,2,3-c,d)pyrene Naphthalene Pyrene

Figure 20 – Parameters to be monitored in beach sediment and bathing water.

3.2. Collection and onward management of waste from motorcycle maintenance

All mechanical and refuelling work on motorcycles, including operations involving oils and fuel, will take place in a designated, equipped area. This Service and Refuelling Area will be in the car park on Avenida Infante D. Henrique, west of the Monte Gordo Casino.

Under FIM regulations, all competitors must use an absorbent environmental mat. It will help prevent liquids from seeping or running onto paved surfaces or into drainage gullies, soil or sand.

The environmental mat has an absorbent upper layer and an impermeable lower layer to prevent soil and water contamination. Its use is mandatory:

- wherever work on motorcycles is permitted;
- in the closed service park;
- in the pits, beneath generators and wherever there is a risk of spillage;
- beneath all waste oil and fuel containers provided by the organisers;
- at all official refuelling points.

The minimum specifications for the environmental mat are dimensions of 160 cm × 100 cm; an absorption capacity of at least 1 litre; and a thickness of at least 5 mm.

Containers for the following types of waste will be installed in the Service and Refuelling Area (Figure 21):
- Contaminated packaging (EWC 150110*);
- Oil filters (EWC 160107*);
- Pressurised packaging (EWC 150111*);
- Fuel mixtures (EWC 130703*);
- Air filters (EWC 150203);
- Brake pads (EWC 160122);
- Contaminated absorbents (EWC 150202*);
- Metals (EWC 160117);
- Lead batteries (EWC 160601*);
- Tyres (EWC 160103);
- Other engine, transmission and lubricating oils (EWC 130208*).



Figure 21 – Waste collection facilities located in the Refuelling/Service Area.

Public access to this area will be controlled by the security forces.

3.3. Municipal waste prevention and management

The Municipality of Vila Real de Santo António and ALGAR – Valorização e Tratamento de Resíduos S.A. will establish a partnership with the following objectives:

- Minimise the environmental impact of the event through appropriate municipal waste management;
- Prevent and reduce the generation of municipal waste;
- Raise awareness of how to separate recyclable packaging waste correctly;
- Promote the transfer of recyclable packaging waste generated at the event for recycling.

ALGAR will provide advice, support and training to set up a separate waste collection system.

All exhibitors will be told how to sort and dispose of their waste. They will also receive awareness materials and bags for use with the separate collection bins.

Small recycling stations with colour-coded 120-litre bins will be provided in public service areas, the exhibition area and the Fun Zone (Figure 22).

Waste left or found at the venue will be collected, sorted and sent to an appropriate facility for final treatment or disposal.



Figure 22 – Equipment for the collection of recyclable waste to be installed.

3.4. Collection of cigarette butts

To reduce cigarette butt litter on the beach, ashtrays on stands will be provided beside the boardwalk, including at the ramps and steps leading to the beach (Figure 23).



Figure 23 – Ashtrays and stands to be installed along the beach.

At the end of each race day, the beach will be cleaned mechanically, with particular attention to removing cigarette butts and other litter.

3.5. Protection of dune systems and wildlife

Monte Gordo beach has 12 boardwalks providing access to the sand, including a boardwalk approximately 2 km long that runs parallel to the shoreline.

The boardwalks guide pedestrians and reduce trampling of the dunes, helping to protect plants and wildlife. Additional safeguards will nonetheless be in place during the event.

Physical barriers will restrict public access, and security personnel will direct visitors to designated areas. This is intended to keep people out of restricted areas, off the circuit and away from the foredune.

To stop visitors entering the dunes in search of better views, fencing will be installed beside the boardwalk and around the dunes to its south, particularly where the dunes rise above the boardwalk.

Multilingual signs will be displayed along the boardwalk and seafront and in dune areas. They will explain that trampling the dunes is prohibited and state the fines that apply for breaches.

Private security teams and officers from the Vila Real de Santo António Port Captaincy (Capitania do Porto) will patrol the venue and surrounding areas to prevent and address breaches.

3.5.1. Fencing along the coastal boardwalk and beside the seafront

Plastic-coated fencing approximately 1 m high will be installed at the base of the boardwalk along its roughly 1,800 m length. This will prevent spectators from passing underneath it and entering the dunes (Figure 24).



Figure 24 – Fencing to be installed at the base of the boardwalk.

At previous editions of the Monte Gordo Sand Race, tall metal fencing was installed along the seafront as an additional precaution, given the uncertainty over attendance and where spectators would walk or gather.

Experience from previous editions showed that spectators used the designated boardwalks and that no event-related dune trampling was recorded. The main gathering areas are also away from the dune systems, which do not offer good views of the race and are therefore unlikely to attract spectators.

This tall metal fencing is therefore not planned for 2026. The dune systems will continue to be protected by directing spectators along existing boardwalks, reinforcing signage and maintaining patrols by the maritime and police authorities and private security teams.

3.5.2. Marking the boundaries of dune areas

Missing posts and ropes will be replaced in the dunes west of the fishing area and south of the boardwalk, and beside the designated vehicle access to the beach. This will restore the continuous boundary established in previous editions (Figure 25).



Figure 25 – Reinstating the boundaries of the dune systems.

3.6. Beach cleaning

The circuit will be bounded by a sand berm approximately 1 m high and will include two or three ramps up to 1.5 m high (Figure 26).

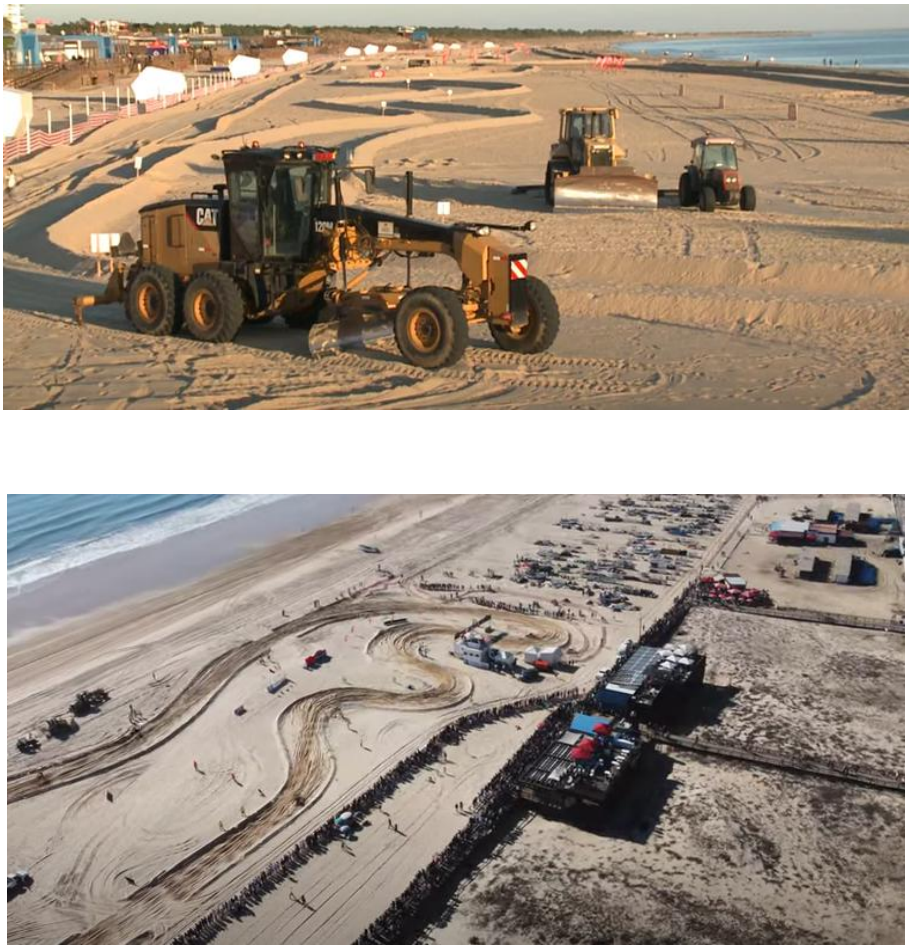

Figure 26 – Boundaries of the race circuit on the beach.

Only sand from Monte Gordo beach will be used to form the circuit boundaries and build the ramps. After the event, the sand will be redistributed and the beach levelled (Figure 27).



Figure 27 – Levelling of the beach after the event had ended.

At the end of each race day, waste will be collected from bins on the beach and litter found along the circuit will be removed by hand. The spectator area and the area near the waterline will then be cleaned mechanically (Figure 28).



Figure 28 – Beach cleaning machines to be used for the mechanical cleaning of the beach.

From 2 December, once the bins, stakes and other race equipment have been removed from the beach, further mechanical cleaning will take place. The equipment can sieve the sand to a depth of 10 cm; three passes will be made to improve the effectiveness of the operation.

After the beach has been levelled, a further mechanical cleaning pass will be made.

Spill containment equipment will be available in the Service Area and race area for use in the event of an environmental incident. The command post will be positioned on the beach near the timing station, and teams of firefighters will be present on foot.

A team equipped with shovels, buckets and other tools will be stationed near the circuit to remove waste found on the beach. Depending on the size of the affected area, mechanical equipment such as a backhoe loader or a tractor and trailer may be used.

If hydrocarbons or oils are spilt, the teams on site will use the available containment equipment and cordon off the affected area. The area will not reopen until cleaning is complete.

Sand contaminated with oils or hydrocarbons will be removed from the beach and placed in a large-capacity container in the car park to the east of the beach.

ABC dry powder extinguishers will be placed along the circuit, particularly at marshals' posts. As a precaution, a light firefighting vehicle will also be on standby near the Working Park (Service Area). If a fire occurs, once it has been extinguished, affected materials and sand will be removed using mechanical equipment such as a backhoe loader, tractor or 4×4 vehicles.

Local awareness activities will be held to publicise the Environmental Incident Action Plan.

If an accident occurs, additional on-site monitoring will assess its extent and potential impacts on the ecosystem.

3.7. Noise emissions

On 27 November, after accreditation and before the remaining technical and administrative checks, all participants must have their vehicles sound tested.

The test will be carried out in accordance with the 2026 FIM Sound Regulations. For the FIM Sand Races World Cup, the maximum permitted level is 112.0 dB(A) before racing and 113.0 dB(A) during and after racing.

Unnecessary running of engines will be avoided.

As the races will take place during the day, no significant noise impact is expected. Nevertheless, sound equipment will not be allowed to exceed 85 dB(A) in any public area.

3.8. Washing of motorcycles and equipment

Motorcycles, equipment and parts will be washed in the Service and Refuelling Area, in the car park west of Avenida Infante D. Henrique (Figure 29).

Only water may be used. No chemicals may be added, including detergents classified as environmentally friendly or biodegradable.

Washing will take place over a containment tray measuring 2.70 m × 1.80 m × 0.40 m, with a capacity of 1,800 litres (Figure 30). The collected wastewater will pass through an Ecodepur Depuroil NS 1.5 oil separator (Figure 31).

Algarlixo will clean the oil separator and arrange onward management of the waste (LER 130507). The treated wastewater will be discharged into the public foul sewer on Avenida Infante D. Henrique at the point marked on the plan below.



Figure 29 – Location of the motorcycle washing area.

Motorcycle washing area

Public foul sewer

Service and Refuelling Area

Motorcycles, equipment and parts will not be washed on the beach.



Figure 30 – Motorcycle washing platform.



Figure 31 – Oil separator.

4. Conclusion

This Plan aims to prevent and minimise the environmental impacts of the Monte Gordo Sand Race 2026 through dune protection, waste management, environmental monitoring and improvements to green spaces. The planned work will also enhance the beaches of Monte Gordo and Manta Rota and the surrounding ecosystems, contributing to more sustainable management of the area. Implementing and evaluating these measures will help ensure that the event can take place while protecting the municipality's natural assets.