

Stewardship and Sustainability

CostaTerra Golf & Ocean Club is Discovery Land Company's first private club and community in Europe. Located in Portugal's Alentejo region along the beautiful Blue Coast, CostaTerra occupies a spectacular landscape of immense natural beauty and diversity. It lies within the EU's Natura 2000 conservation network. We take our role as stewards and custodians of this land seriously. Our aim is to establish a flourishing community and a thriving ecosystem, grounded firmly in the values of sustainable development and management of this precious site. To accomplish this, we are dedicated to making all decisions — from how we use resources and our design vernacular, to the types of activities we will engage in, through this lens.

About the Region

CostaTerra enjoys tremendous diversity of coastal habitats, including beaches, coastal dunes and cliffs. The nearby Arrábida mountains, the plains of Alentejo and the Sado Estuary contribute to the beauty and ecological importance of the landscape. As a result, the Natura 2000 European-designated nature reserve was created to protect the marshes, dune ecosystems, woodlands and rice plantations of this remarkable land.

SADO ESTUARY NATURE RESERVE

The Sado Estuary Nature Reserve is the largest wetlands in Portugal and a bird lover's paradise with more than 200 species visible throughout the year. It also is an important nesting and wintering area for numerous birds, especially wading species. In addition, the estuary is home to approximately 30 bottlenose dolphins. This group is the only dolphin population living in an estuary in Portugal, and the only one known to exist in Europe. Recently, a pod of orca whales has also taken up residence, often accompanying sailing boats as they pass through the estuary. This is highly unusual for the area.

The Sado Estuary Nature Reserve is also home to countless archaeological sites, including Roman ovens in Herdade do Pinheiro, the famously important Roman salt complex situated in Tróia, and the Phoenician Abul factory, to name a few. It also includes the Village of Carrasqueira, an amazing example of native organic stilt architecture, and the only one of its kind in Europe. The famed fishing village has developed over time as a network of boardwalks balanced carefully on makeshift beams. As precarious as it looks, the Village has stood the test of time. Today it is a great place to buy fresh fish from local fishermen, arrange your own fishing expedition, or book a fabulous sunset cruise. You may even encounter the famous dolphins.

SERRA DA ARRÁBIDA NATURAL PARK

Located just north of CostaTerra, the Serra da Arrábida Natural Park presents a spectacular mountainous coastal landscape, spanning nearly 27,000 acres. The park offers a rare example of Mediterranean vegetation in Portugal, and the landmark Serra do Risco. With its dramatic cliff face rising 1,247 feet above the sea, it is the highest peak on the Portuguese Coast. The park is an ideal getaway for hiking, cycling, fishing and other outdoor recreation.

Nearby is Praia do Portinho and the historic Forte de Nossa Senhora da Arrábida. The fort was built in the 17th century to guard the port and the Convent of Arrábida. Today, the fort is home to the oceanographic museum where you can learn about the region's unique oceanic ecosystem, as well as its native flora and fauna.

PLAINS OF ALENTEJO

Between the coast and mountains, Alentejo is a sparsely populated, largely rural region of rich soil and lovely rolling hills. The landscape is distinguished by conspicuous, lush shrubs, native cork oaks and holly oaks. Over time olive trees and grapevines have been introduced in keeping with the region's agricultural roots. It has a pleasant Mediterranean climate with warm, dry summers and mild, wet winters.

In addition to its charming villages and relaxed pace, Alentejo is home to several important natural and historic treasures, including Parque Natural da Serra de São Mamede, featuring medieval villages, and Parque Natural do Vale Guadiana. However, the most impressive is the capitol of Alentejo itself, the historic city of Évora. Just an hour from CostaTerra, Évora dates to Roman times and outwardly has changed little since the 15th century, earning it classification as a UNESCO World Heritage Site.

Sustainability at CostaTerra

With its location in the heart of Natura 2000, the largest network of protected areas in the world, it is vital CostaTerra be developed and managed following the foremost environmentally sustainable practices available today. Our first step in this journey was to carefully survey the development site, working to understand its ecosystem and the role it plays in the broader regional and European context.

SURVEY RESULTS

Our survey revealed that, while much of the land had been cleared of native vegetation generations ago to make way for eucalyptus plantations, our site contained approximately 161 acres of highly valued native woodland and shrub vegetation, including a few notable protected species of plants and birds:

PLANTS

- **Armeria rouyana**, only found along the Alentejo Coast
- **Thymus capitellatus**, only found along the Alentejo Coast
- **Juniperus navicularis**, only found in a very few Mediterranean areas
- **Cisto-Lavenduletalia**, only found in a very few Mediterranean areas

BIRDS

- Dartford Warbler (**Sylvia undata**), classified as a near threatened bird species
- Red-necked nightjar (**Caprimulgus ruficollis**)
- Hoopoe (**Upupa epops**)
- Bonelli's Eagle (**Aquila fasciata**)

Knowing such rare and valued species were present on-site, we began formulating our management plan to ensure their protection. This leaned heavily on the following key areas:

NATURAL LANDSCAPE MANAGEMENT

From the outset, our teams determined the best approach would be to develop the community using entirely native plant species. This approach not only promotes biodiversity, it also makes for a more resilient natural environment. Landscaping managed in this way does not require pesticides, fertilizers, excess irrigation or substantial upkeep to maintain its health and vitality. This regenerative approach also will naturally promote soil health and carbon sequestration, while ensuring critical habitat for threatened native plant and animal species.

Towards this objective, the on-site plant nursery, containing more than 76,500 plants recovered from the golf course clearing, will play a crucial role in the landscape management approach even after the development phase is completed. Our goal is to propagate and reintroduce more than 350,000 native plants to the site within the next few years. These plants will be re-established within the forest, golf, and residential zones of the community.

SUSTAINABLE GOLF DEVELOPMENT

In keeping with Discovery Land Company's environmental vision for CostaTerra, the golf facility uses reclaimed water from within the community to provide irrigation to the course and its surrounding turf areas. Additionally, the golf course is limited to just 59 acres of turf to further reduce water needs. Finally, the golf course fairways feature Zeon Zoysia turfgrass, and will be the only course in Portugal to do so. This grass species provides a world-class playing surface while requiring only minimal chemical applications to maintain its health. As such, it will help in the preservation of the existing **Zimbral** forest adjacent to the site.

SUSTAINABLE GOLF DEVELOPMENT QUICK FACTS:

- All sand used in the construction of tees and fairways came from on-site
- Sustainable use of recycled water for irrigation, drought tolerant plants and reduced turfgrass area requires minimal groundwater (only course in Portugal using Zoysia grass)
- Native plant material sourced from on and around the site through responsible seed harvesting
- On-site nursery holds more than 76,500 native plants recovered from the site. These plants will be propagated on the golf course, forest and residential areas of CostaTerra
- CostaTerra will restore and protect small-scale habitat areas for birds, bats and invertebrate species who may potentially inhabit the site post construction
- The CostaTerra golf course will be enrolled in the OnCourse® Developments program, delivered and assured by the GEO Foundation, a third-party label which certifies sustainable golf development

Sustainable Master Plan

Discovery Land Company has worked carefully with experts to develop a truly sustainable master plan for CostaTerra. This plan encompasses the complete ecosystem in our area and allows us to meet the needs of our Member families without compromising the needs and interests of future generations. Towards this goal we are dedicating considerable resources, including financial, technical and labour, to engage with the wider community, educating and partnering with associations and networks of concerned individuals and groups to advance the cause of sustainable growth at CostaTerra as well as throughout the broader region.

CostaTerra's 800 acres is comprised largely of coastal dunes with a smaller portion (161 acres) of healthy juniper forest (**Zimbral**), which is home to the extremely rare and endangered **juniper navicularis** and **Cisto-Lavenduletalia**. However, it is important to note that 581 acres of the CostaTerra property was cleared generations ago to serve as part of a giant timber plantation. This plantation introduced invasive eucalyptus, as well as non-native pine and acacia to the area. Our job to restore this land to its former glory will be no small feat.

We developed our master plan to further integrate sustainability across the resort and to provide a steering document for future sustainable improvements. This simple vision led to a set of goals that form the foundation of everything we do, from development to long-term management of the property. The plan focuses on our key sustainability themes and is aligned with the Discovery's vision as well as the objectives of the Sustainability Committee and Discovery Fund. The plan places particular emphasis on the following:

ECOSYSTEM HEALTH AND RESILIENCE

- Survey and monitor flora, fauna, including insect life, throughout property
- Introduce native plants and nesting sites to entice insect and bird biodiversity, with particular emphasis on wild bees and endangered bird species
- Engage in organic regenerative farming practices to ensure soil fertility and longevity
- Develop sustainable forest management practices to reduce wildfire risk by fuel reduction and activate a sustainable wood life-cycle process

COASTAL DUNE LAB

This eco-center will be located on the CostaTerra Organic Farm and dedicated to:

- Thematic workshops and activities with a focus on natural health and environmental sustainability (zero waste, food preservation, dune ecosystem education, wild bee workshops and activities)
- Food processing and preservation (fermentation, dehydration, curing, distillation)
- Bee products production and bio herbal remedy lab
- Organic flower, medicinal herb, and essential oil production

FARM-TO-FORK STRATEGY

- On-site, organic, regenerative permaculture farm
- Commitment to buy local, seasonal, carefully produced supplies

WATER CONSERVATION

Accomplished through the implementation of best management practices to reduce vulnerabilities to drastic weather conditions, such as:

- Use of Zoysia grass on the course, requiring 25 percent less water than other commonly used grasses
- Computer-controlled irrigation system with every sprinkler head connected via the web to an automated system, delivering precise amounts of water to every square meter of landscape
- Wastewater treatment and reuse in irrigation
- Reduction in residential and urban water use through metering, goal setting, and low-flow machines
- Capturing rainwater from rooftops, where possible, for outdoor use

RESPONSIBLE WASTE MANAGEMENT

- Commitment to reduce and divert waste from landfills
- Commitment to encourage recycling as well as the reuse of materials
- No single-use plastics — e.g. replacing plastic water bottles with refillable glass bottles
- Composting
- Employee education

ENERGY CONSERVATION THROUGH INNOVATIVE PRACTICES AND PROCEDURES

- Use of renewable energy throughout resort operations
- Enhance energy efficiency with LED and other technologies
- Commitment to electric where possible

SUSTAINABLE BUILDING PRACTICES TO REDUCE ENVIRONMENTAL IMPACT

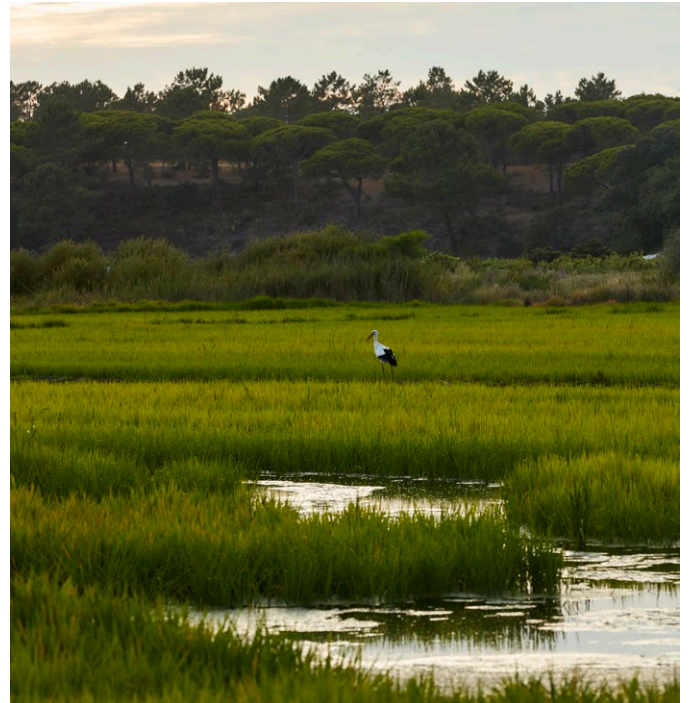
- Design and construction policies and procedures in harmony with nature, local culture, and the resort site
- Design for longevity, energy efficiency and responsible resource selection, including utilization of green building materials and non-toxic inputs
- BREEAM community certification

LOCAL COMMUNITY SUPPORT THROUGH A ROBUST SOCIAL RESPONSIBILITY AGENDA

- CostaTerra will donate a portion of every sale to the CostaTerra Sustainability Fund, which will be invested directly into the local community to promote and sponsor education, organic agriculture, animal welfare, local artisans and local community initiatives.
- Encouraging team members to volunteer for community work
- Commitment to buy local products wherever possible
- Organize fundraising activities and donation opportunities
- Contribute to local economies by hiring and developing local people
- Introducing supplier sustainability partnerships where possible
- Promoting community involvement in the resort actions

Conclusion

As demonstrated here, CostaTerra takes its role as steward of this incredible property extremely seriously. We have dedicated considerable resources and manpower to developing this cutting-edge approach to sustainable development and management of the site. It is a large responsibility with much hard work ahead. However, we have assembled the best team in the world to achieve our goals, and we are confident our efforts will leave CostaTerra's natural environment healthier and more vibrant than it has been in generations. Our intention is for this property to become a model for sincere, thoughtful community development and operation for others to emulate for years to come.



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