TERRE BLANCHE HOTEL SPA GOLF RESORT***
115 SUITES & VILLAS • 4 RESTAURANTS • TWO 18-HOLE GOLF COURSES • THE ALBATROS GOLF PERFORMANCE CENTER • REAL ESTATE
3100 Route de Bagnols en Forêt • 83440 Tourrettes • Provence Côte d'Azur • France
www.terre-blanche.com

Man bears a solemn responsibility to protect and improve the environment for present and future generations

(Stockholm Conference 1972).

Objectives

It was in the late 1990s that Dietmar Hopp discovered the Terre Blanche site. It was a case of love at first sight for what was, at the time, a piece of wasteland; the sad memory of an unfinished project.

Yet rather than seeing what had not been achieved, it was the potential of this area that caught the attention of keen golfer and entrepreneur at heart Dietmar Hopp.

Terre Blanche is the story of a development inspired by a passion and a desire to share it with others without disturbing the fragile balance of nature.

Prior to any work on the site, Terre Blanche conducted a phytoso-ciological study of the site in order to identify the aquatic and wet habitats, temporary Mediterranean ponds and forest populations to define the conservation issues of the natural habitats and the rare species to be protected.

These studies have made it possible to define a sustainable ap-proach to maintain a balance between the project's commercial objectives and the preservation, or even positive development, of existing biological diversity.

The approach
Haute Qualité Environnementale
(High Environmental Quality)
- FIND OUT MORE

Irrigation water
- FIND OUT MORE

Run-off water
- FIND OUT MORE

The gullies
- FIND OUT MORE

Our approach

Haute Qualité Environnementale

(High Environmental Quality)

Insertion

In order to preserve the quality of the views from the villages of the Haut Var, which overlooked natural spaces before the works, Terre Blanche defined, through land transfer specifications applicable to itself and the co-owners, landscape provisions intended to maintain the existing plant cover with the implementation of **mitigation measures**.

Uniform woodland strips around built-up areas have been maintained, preserved and even densified. These woodland strips help to maintain a wooded landscape conducive to high biological diversity and avian exchanges with the lakes and forests near Terre Blanche.

Our approach

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Integration

To reduce the visual impact, waterproof surfaces and destruction of the natural environment, the projects were all designed with the priority objective of using basements for all technical rooms, car parks, filtration room, technical gallery, etc. and any equipment for which daylight is not necessary.

The additional investment costs are largely offset by the calibration of infrastructures (networks for collecting run-off water, hydrocarbon separators and balancing ponds for regulating the volumes discharged into the natural environment).

Terre Blanche is just like the hillside villages of the Haut Var. The hotel and its suites is a real haven of peace and tranquillity with villas scattered in the woods in lush natural spaces enjoying exceptional views.

The views of Terre Blanche from the villages of the Haut Var have also been studied to maintain a view of the natural hillside from these villages, with buildings perfectly integrated with the plant cover.

Our approach

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Prevention

THE FIRE RISK

Throughout the construction phase and until definitive technical and human resources were put in place, Terre Blanche, like any natural plant space, was exposed to a fire risk capable of destroying the site for decades.

A fire brigade was set up with self-supporting means to fight any fire, whether of natural or human origin.

THE FLOOD RISK

Terre Blanche is at risk of flooding due to storm rainfall capable of ruining the golf courses or even damaging the infrastructures. There is also the possibility of the Riou Blanc, the river that runs through Terre Blanche, overflowing. It exposes the golf courses at its borders to the risk of erosion and ruins the fairways in decennial or centennial floods.

Run-off water collection infrastructures have been calibrated to respond to instantaneous inputs from the roads (waterproofing, therefore no infiltration) with the creation of numerous balancing ponds scattered in areas that require the volumes of water returned to nature to be regulated.

As well as being ornamental structures, the gullies also recover run-off water and, as such, are made of reinforced waterproof concrete that is resistant to erosion.

These gullies also act as an energy dissipator, reducing the speed of the flowing water with their successive breaks.

The Riou Blanc is maintained, in the area of which Terre Blanche has full ownership of a half-bank or both banks, by excavating the materials and plants that can reduce the bed used to drain run-off water.

The perimeter fences, particularly at Le Riou fairways 1 and 2, are designed to be foldable so as not to obstruct the flow of the Riou Blanc waters when the river rises over its decennial flood plain.

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Mitigation measures

Any human intervention in the natural environment affects biodiversity, even if the immediate effects cannot be seen.

Walking can destroy plant cover and microorganisms and thus contribute to the destabilisation of sensitive and fragile natural environments. For example, it took a few decades to understand the side effects of the disappearance of plants in the dunes, the binding power of which, once gone, led to spectacular irreversible erosion, with serious consequences on human activities.

The Land Transfer Specifications drawn up from the outset and appended to all sales contracts impose numerous mitigation measures to be implemented to maintain an ecological balance. For example, for any tree felled for the purposes of construction, one, or even two depending on the case, more must be planted.

A landscape component also defines the natural areas to be preserved and numerous procedures such as the management of irrigation and run-off water.

Indigenous species are favoured to maintain the biological diversity and natural habitats.

Our approach

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(High Environmental Quality)

Works phase 2000–2008

From the very first blow of the pickaxe and throughout the establishment of Terre Blanche, provisions to protect and monitor environmental impacts (of both construction and operation) were put in place.

Under the direction of the prefectural services (Water Police, Departmental Agriculture and Forestry Department, etc.), independent design offices were entrusted with the task of monitoring and verifying the obligations arising from the building rights obtained.

WILDLIFE IMPACT MISSION

The progress reports of the design office mandated by the Prefecture confirm the following:
In 2002, during the construction phase:

"Applied clean worksite management, accompanied by strong daily logistics, does not generate devastating and irreversible side effects that are too often observed in major worksites."

In 2008, four years after the completion of the main development work:
"Our first approach to Terre Blanche's avian processions and environments shows that the golf and residential structures have been harmoniously integrated into the natural landscape of the sector.

HYDROLOGICAL IMPACT MISSION

"We were particularly surprised by the quality of the work underway, which scrupulously respects the wooded areas while maintaining a woodland landscape conducive to life.

"This landscape structure aims to blend the housing into the forest environment and gives all the plots an unusual natural and intimate appearance with the most beautiful effect.

"Although this needs to be confirmed later in the season, it does not appear that the bird community has suffered from the well-known impact of the resort's development."

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WILDLIFE IMPACT MISSION

From the outset, Terre Blanche appointed a hydrogeologist responsible for the design and hydrological monitoring of the resort.

The hydrogeologist is also responsible for:

• assisting the architects during the design phase for new structures in defining the construction provisions in line with the existing structures. A hydrological evaluation, attached to any building permit application, validates the provisions made for the collection and control of run-off water.

• monitoring and verifying the proper construction of the structures.

HYDROLOGICAL IMPACT MISSION

Our approach

Haute Qualité Environnementale

(High Environmental Quality)

1. WORKS PHASE
2. OPERATIONAL PHASE

Operational phase

THE GOLF COURSES

Terre Blanche has teamed up with consultancy design offices to optimise the golf course management programmes while respecting environmental issues.

In 2019, the flora composition of the fairways has been fundamentally changed and replaced by Dwarf Bermuda Riviera Grass.

These grasses do not require much water and are resistant to cryptogamic diseases, leading to a significant reduction in the use of plant protection products.

A wildlife audit and monitoring mission has been entrusted to an international design office as part of the "Golf pour la biodiversité - niveau Argent" (Gold for Biodiversity - Silver) certification.

RESERVOIRS PROVIDING IRRIGATION WATER | WOODS

Our approach

Haute Qualité Environnementale

(High Environmental Quality)

Operational phase

Terre Blanche has engaged a consultancy for the management of hydraulic equipment with the aim of maintaining and deploying a reservoir in sensitive conditions (management of tidal currents, temperature, oxygenation and proliferation of microscopic algae).

Our approach

Haute Qualité Environnementale

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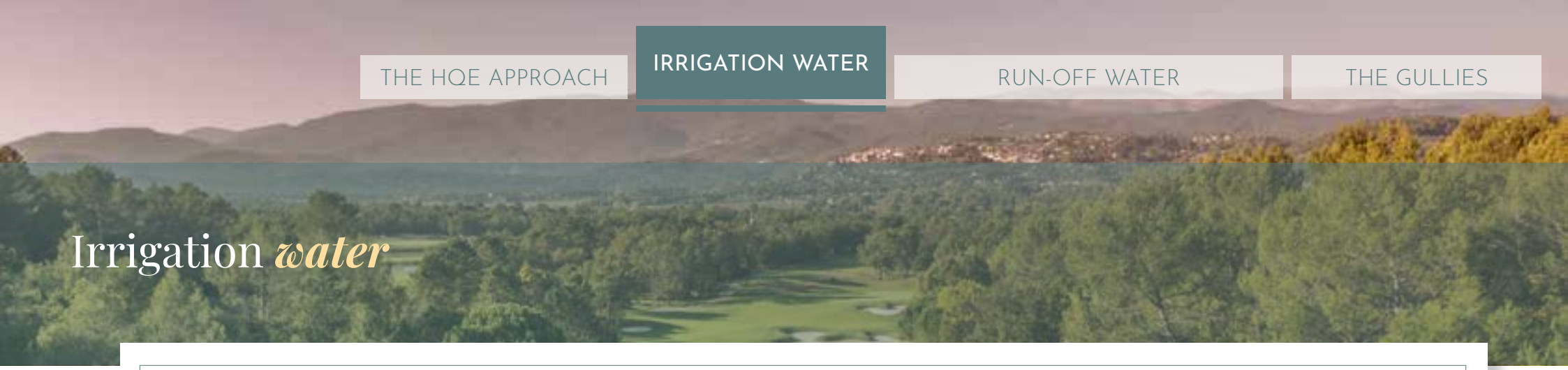
1. WORKS PHASE

2. OPERATIONAL PHASE

Operational phase

THE GOLF COURSES | RESERVOIRS PROVIDING IRRIGATION WATER | **WOODS**

The natural areas around the fairways are uncultivated to allow the natural evolution of fauna and flora with the creation of habitats conducive to their development (storage, wood, selective mowing once a year, etc.)



Irrigation *water*

The black gold of Provence

Terre Blanche uses non-drinking water from the Verdon Canal for its irrigation needs.

This water is stored in Saint Cassian Lake, near Terre Blanche, which has a dual purpose: hydroelectric dam and water retention to supply the Canton, thereby relieving fragile local resources and guaranteeing less water is withdrawn from the water table and waterways.

Terre Blanche buys this untreated water and is prohibited from drawing water from the water table, which must be considered a common good in the public interest.

In the event of a break in the supply of irrigation water, Terre Blanche can use two emergency boreholes for its immediate needs, drawing from the water table under the control of the prefectural authorities.

Using drinking water to compensate for losses in the network is a waste and drinking water is sometimes used for household uses that do not require it. Using this raw water is our response to these issues, for lack of a dual supply network.

The untreated raw water used for irrigation is taken from the natural resource that is the Verdon Canal and, given its lack of treatment, has a neutral impact on nature when it returns.

Using drinking water for industry, washing (public or private) and uses such as sanitary facilities or washing machines is an insult to the black gold of Provence that is water.

Irrigation *water*

STORAGE

The lakes that have been created at Terre Blanche serve to separate sediment from the raw water needed for irrigating the golf courses and bring it to the correct temperature.

The wetlands surrounding the lakes are conducive to the development of flora and fauna within Terre Blanche.

Irrigation *water*

Raw water for watering private gardens is filtered mechanically without any chemical treatments, to be distributed through a network dedicated to the infrastructures (hotel, villas, etc.).

This underground filtration plant is automated, and the contaminated rinse water is routed to the lakes to be naturally clarified and used with no wastage.

Irrigation *water*

The raw irrigation water distribution network for the two golf courses is permanently controlled by means of centralised technical management which can detect anomalies and blockages in the equipment.

Irrigation *water*

Good practices and water-saving management are the core principles that Terre Blanche puts into practice and has put into practice at all levels.

Terre Blanche has created specific software adapted to the resort's needs to manage raw water resources and drinking water consumption.

Using an access code, each user is able to consult their consumption over a 30 day period from wherever they are in the world.

Individual meters are connected to the central software by optical fibres, enabling consumption to be viewed instantaneously and remotely.

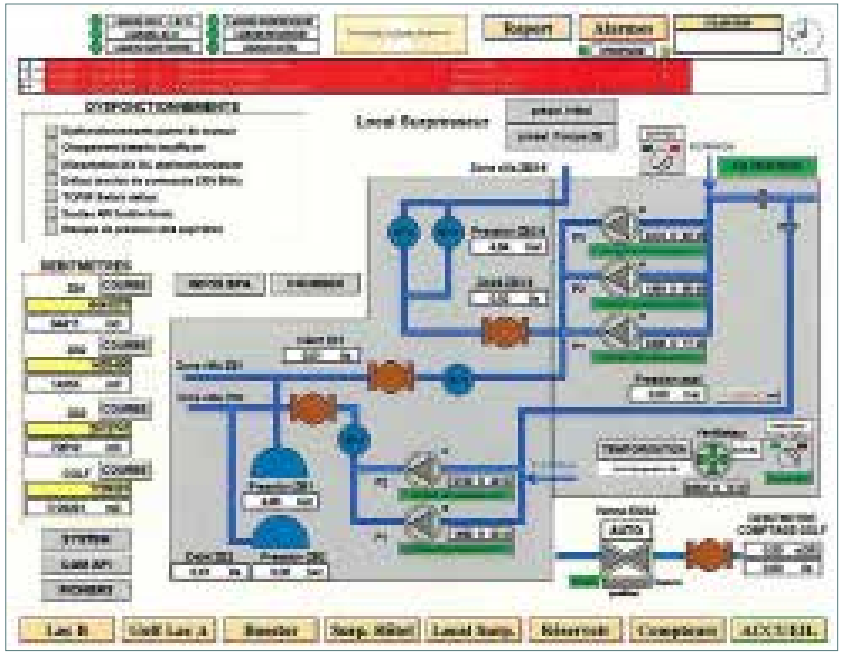
THE RAW WATER NETWORK

The software is used to:

- Supervise and monitor the equipment
- Monitor technical alarms
- View the volumes consumed
- Control consumption enabling real-time management of volumes, flows, time periods and any restrictions on use according to prefectural orders.

THE DRINKING WATER NETWORK

The accuracy of the readings enables each user to identify any leaks in the private downstream network.



Irrigation *water*

Thanks to their design and the software deployed, the infrastructures enable any incident in the network to be detected almost instantaneously, reducing the risk of water loss due to leaks.

It is generally accepted that in public water distribution networks, more than 30% of drinking water is lost and not distributed.

Terre Blanche thus contributes to the sensible management of a precious resource, while prohibiting the use of drinking water for irrigation and watering green spaces.

Run-off *water*

Waterproof surfaces (roofs, roads, terraces, etc.) concentrate rainfall which, collected in this way, creates instantaneous flows that cause floods that are as damaging as they are unpredictable.

Hydrocarbons, deposited during dry periods due to human activities and the circulation of vehicles with thermal engines on roads, are washed by the rain and collected in rainwater separating networks equipped with hydrocarbon separating tanks.

Thus, run-off water reintroduced and depolluted in the natural environment is a unique feature of Terre Blanche.

Each time it rains, waterproof surfaces generate significant instantaneous flows that must be regulated before being reintroduced into the natural environment.

The 15 balancing ponds created by Terre Blanche control, delay and calibrate the volumes of water reintroduced into the natural environment.

The Albatros Golf Performance Center's course has one of the main balancing ponds at Terre Blanche, with a capacity of 5,000 m^3. Its dual functionality is a typical example of harmonious insertion into the site. This conch-shaped balancing pond was shaped by excavated earth from the levelling work of various other nearby programmes.

The *gullies*

The gullies have several functions:

- RAINWATER COLLECTION NETWORK

The gullies were created in existing thalwegs to collect run-off water and regulate its flow through adapted architecture

- ENERGY DISSIPATOR STRUCTURE

The successive breaks, interrupted by the lakes, delay the volumes dumped in the Riou Blanc and reduce the speed of the flowing water

- WILDLIFE BALANCE

The gullies, with their waterfalls, oxidise the water during closed-circuit operation and prevent its eutrophication, while creating spaces conducive to the development of reed beds and white or dormant water bodies which foster diversity.

- AESTHETICS

In the context of the operation of the golf courses, by mimicking mountain waterfalls.

The *gullies*

Due to their watertight structure, the design of the gullies preserves the volumes of water available and their reuse outside of periods of bad weather in a closed circuit, as the water is pumped from the downstream lake to the artificial source of the 2 gullies.

The *gullies*

The pumping stations are equipped with a timer managing the activation of the water discharge pumps according to strict commercial needs.

The aim of this programming is also to minimise electricity consumption and evaporation. The latter occurs mostly in the area around the waterfalls, where the evaporation of running water lowers the surrounding temperature, creating a refreshing atmosphere for everyone to enjoy.