



Waterdunen



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ACKNOWLEDGEMENTS

Issued by: Province of Zeeland

Text and layout: Province of Zeeland

Printing: LNO Drukkerij, Zierikzee

Photography: DNA image database laatzeelandzien.nl, Nanda van den Berg, Chiel Jacobusse, Molecaten, Mark Neelemans, Annemarie Pouwer, Eric van Rootselaar, Shutterstock.com, Studio Raven, Scheldestromen Water Board

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Waterdunen is a collaborative venture by: the Province of Zeeland, the Scheldestromen Water Board, Het Zeeuwse Landschap, Molecaten and the Municipality of Sluis.

WATERDUNEN: A NEW ZEELAND ICON

Welcome to the world of Waterdunen. A nature area and recreational park is being constructed. In this booklet, you can read more about this exceptional area where the land meets the sea - 350 hectares of mildly saline nature between Groede and Breskens.



Interplay

Zeeland has a coastline of 650 kilometres: the land is surrounded by sea. That location, that interplay between the water and the land, salt and fresh water, ebb and flood tides, is what makes Zeeland different from other regions. The interplay between water and land comes clearly to the fore in Waterdunen. We are experimenting there with new formats for land use and aquaculture, as well as strengthening the coastal defences: living with the sea. An unforgettable unity with the tides, the mudflats and the birds. Oceans of time and space for yourself: welcome to Waterdunen.



DELTAWERKEN 2.0

Waterdunen is the proof that Zeeland has a different approach to water. As well as being an attractive and unusual nature area and recreational zone, Waterdunen is also a delta management project. But a very different kind to the familiar large-scale Deltawerken that protect Zeeland against the water. We are combining nature, recreation and tidal effects into an innovative form of coastal defence, with safety as a key prerequisite.



Saltwater nature and unusual birds

The tides determine Waterdunen's nature. The constant cycle of high and low water means that the landscape of marshes, creeks, sand and mudflats looks different again every hour. That is attractive for the coastal birds, who can find quiet places here for foraging and breeding. Situated at the mouth of the Westerschelde, it is a European stopover port for migratory birds as they make their long journeys along the North Sea coast.

Aquaculture

Because of the tides, salt-tolerant plants will grow on the marshy areas, producing salty grasslands. In the late summer, there are fields of splendid purple sea asters and red banks of samphire. This exceptional area where the land meets the sea also makes innovative aquaculture and cultivation of halophyte crops possible.



WHERE THE LAND MEETS THE SEA

In Waterdunen, you can feel, smell and hear Zeeland. A network of kilometres of walking, cycling and horse-riding routes is being laid. A bridge going past the birds' breeding islands and other walking routes let you feel at one with the salty nature and the birds. Special hides and viewing screens to let you watch the birds bring you eye to eye with the winged visitors to the area.



Nature lovers and recreational visitors will really love it.

An attractive tidal zone lies just behind the strengthened dunes, making a nice place to spend your time.

The wide embankment has room for a duneland camp site with 300 spaces. At the edges of the dune area, there will be 400 holiday homes overlooking the marshes and creeks. There will be an avenue with a hotel and small-scale catering sector businesses and shops.

You will soon be able to go and explore Waterdunen, enjoy it, and relax. Waterdunen is both rugged and comfortable at the same time.



ADVENTUROUS WATERDUNEN

Both young and old will be able to enjoy themselves in Waterdunen. The children can play outside in the nature and put their mobile screens and computer games aside for a while. And while the kids are playing and mucking about in the sand, water, mud and shells, the adults can sit on a bench and enjoy the sun. Or maybe get down on their hands and knees too and help build the dams and sandcastles.



On the paths

There will shortly be walking routes through the nature area. For a real connoisseur's experience, you can walk barefoot along the path. Stroll from the cabin to the viewing hide and experience every aspect of the bird paradise. Other paths are hardened and let you explore the area on a bike or even a mobility scooter. The horse trail around the perimeter means that Waterdunen is also good for riding, letting you get a good breath of fresh salty air.

Discovery

What else will there be to discover? The tidal culvert, for example: an ingenious structure that allows fresh seawater into the nature area twice a day. Or you can learn more about the special plants and birds of Waterdunen by taking a guided walk.



BIRDS UP CLOSE

Waterdunen is close to Breskens, an international hot-spot for migrating birds. Vast numbers of all kinds of bird species pass through the area, particularly early in spring. The passing birds can best be watched from the bird-counting post on the sea dyke, not far from the lighthouse.

Plenty of food

Waterdunen will soon become full of food for passing birds, thanks to the varied landscape, its favourable location and the effects of high and low tides. Swallows and meadow pipits catch insects above the water and along its edge. Waders such as oystercatchers and avocets find shellfish and worms in the soft mud. Geese and ducks have plenty of opportunities to graze.



Something for everyone

Waterdunen is about letting humans encounter the birds. There will be ornithological hides and screens, and other ingenious facilities for bird-watching. The hides will not only let you enjoy the nature, but also learn about it. Both the experienced 'twitcher' and the casual passer-by who just wants to take a look will be surprised by the richness of the avifauna.

The future's already here

If you visit Waterdunen now, while it is still under constructions, this all seems a long way off. There is a lot of bird life already, though. They are the pioneering bird species, who will be accompanied by many others within just a few years.



COASTAL DEFENCES

Waterdunen is also a delta management structure. But a very different kind to the familiar large-scale infrastructural Deltawerken that protect Zeeland against the water. The special thing about this new part of the coastal defences is that you cannot easily see what it is. Nature, recreations and tidal reaches within the dykes are being combined in an innovative form of coastal defence.



New dunes

The Scheldestromen water board is working on reinforcing the stretch of coast between Breskens and Groede, at Waterdunen. Earth, heavy clay and sand are being used to create a new dune, 300 metres in width. About 1.5 million cubic metres of earth and about 400,000 of sand are being deposited at a spot between 't Killetje and Het Zandertje. The tallest of the dunes will be about 18 metres high and will provide a splendid view over the area.

Sturdy and sustainable

The dune has been designed so that it will meet the current safety norms as a water barrier for 200 years. Allowances have also been made for the expected sea level rises. It is a sturdy and sustainable solution.



TIDAL CULVERT

The unique delta nature in Waterdunen, with its gullies and mudflats and marshes, has been made possible by laying a tidal culvert in the dyke around 't Killetje near Breskens.

Construction

The tidal culvert consists of a structure of four tubes running through the dyke. From 2016 onwards, water will flow in and out of the nature area from the Westerschelde through three of the tubes at high and low tide. These tubes have sliding flaps that can be operated remotely. The flaps control the water level in the area behind the dyke and they can be closed off completely in an emergency. The fourth tube is for removing excess water from the poldered areas around Waterdunen.



Energy from water

A tidal energy station will be installed in the tidal culvert, consisting of a turbine to generate energy from the water flowing in and out. The energy will be used for the residential recreation in Waterdunen.



This project has been made possible by a contribution from the European Regional Development Fund (ERDF) as part of the operational programme for the southern Netherlands (OP-Zuid).



HOLIDAY HOMES

Molecaten is constructing the holiday homes in Waterdunen, building them into the landscape as much as possible. Being able to experience the natural area is an important aspect.

Indoors and outdoors have to become blurred. It give a feeling of calm and space, in natural surroundings.



Building innovatively

Sustainability is a keyword in building the holiday homes.

The houses are modular and can easily be dismantled. This means that Molecaten can build quickly, impacting the environment as little as possible. The elements of the houses are exchangeable, meaning that new developments can be applied quickly.

Development with sustainable system choices

Simplicity, comfort, ease of use and efficiency: these are the driving forces behind the sustainable system choices.

Molecaten is aiming to use or reuse natural materials as much as possible, in recycling systems with short and simple loops. Energy-efficient and natural systems are used for heating and cooling the holiday homes. Time spent in Waterdunen is all about peace and space in natural surroundings, with sustainability as a key principle.



COASTAL LABORATORY

Marine plants and animals grown and farmed on land, but in a way that retains the attractiveness and ecological value of the landscape. That is the Coastal Laboratory in a nutshell.

Salt-tolerant crops in Waterdunen

The seawater that flows in and out of the area through the tidal culvert makes Waterdunen an excellent spot for cultivating salt-tolerant vegetables inside the dykes. *Het Zeeuwse Landschap* is going to lay out part of the nature area as an innovative Coastal Laboratory. The restored farmhouse 't Hof Waterdunen will be the focal point supporting halophyte crop cultivation, as well as nature management and educational activities in the area.



A valuable combination

Businesses will be able to set up operations in the Coastal Laboratory. *Het Zeeuwse Landschap* is making land and basic facilities available and will ensure that the landscape quality is not affected. Setting up the Coastal Laboratory has been made possible with a contribution from the *Nationale Postcode Loterij* and support from the European Regional Development Fund (ERDF) as part of the operational programme for the southern Netherlands (OP-Zuid).



Waterdunen is seeing the birth of a 350-hectare saltwater nature and recreation area. You will shortly be able to sleep, wake up here and then enjoy and experience this special area on the coast between Breskens and Groede.

