Port of Rotterdam

Common bird's-foot trefoil and flatweed

NATURE VISION

Room for nature in the port of Rotterdam

The unique location of the Port of Rotterdam in the Rhine-Meuse delta – and the specific conditions here such as the sandy soil – make it the perfect habitat for a range of plants and animals. So nature can flourish here.

The port is a haven for many species because they are not disturbed as much as elsewhere. The extensive area given over to nature constitutes an important ecosystem: it is home to large numbers of birds, including coastal species, and even unique plant and animal species such as the natterjack toad and a range of orchids.

That ecosystem is vital given the worldwide pressure on nature and biodiversity. Our dedicated nature policy helps with the conservation and restoration of animal and plant life.

Orchid

Seals on the Maasvlakte

Industry and nature go hand in hand

The 2030 Port Vision was produced for the Rotterdam Port and Industrial Complex and the sea ports of Dordrecht.

To make the port future-resilient, we work responsibly with natural resources and the environment. Economic progress is important, but not at the expense of nature and the environment in the port industrial area, or the living conditions in the surrounding municipalities. Industry and nature go hand in hand in the port of Rotterdam.

Nature Vision

The Port of Rotterdam Authority aims to accelerate sustainability in the port through our commitment to preserving and restoring nature and biodiversity. That commitment also makes the port a good place to live and do business. We want the port to be, and remain, a healthy and attractive location for people, animals and plants. Any failure to consider nature enough can result in safety risks, damage to our reputation, fines or the revoking of permits.

So in line with the 2030 Port Vision, we have drawn up our own Nature Vision. It sets out our approach to nature in the port of Rotterdam. It also looks at surrounding areas (including nature areas) where the port has an impact, directly or indirectly.
On the basis of our Nature Vision, we integrate nature in our plans and projects.

What shape will the port take in 2030?

There is ample space in the port of Rotterdam for nature and biodiversity. We firmly believe that they can thrive even more here.

A vision of the future... By 2030, the western part of the port will be a natural link between the surrounding nature areas. The business parks blend into the dune landscape and there is an abundance of room for rare grasses, butterflies, reptiles like the sand lizard, coastal birds and birds in general. In the east of the port, there are urban ecosystems, with species that thrive in nutrient-rich, built-up, environments: bats, sparrows, endangered species of nettles and ferns.

Port landscape of the future on land

Port landscape of the future below the water

(Illustrations: Ark Natuurontwikkeling - Jeroen Helmers)

Life is abundant, both on and in the water. The open connection between the hinterland and the sea means that port basins are not just an ideal migration route for migratory fish: they are ideal as spawning and rearing grounds for thousands of fish.
Seals and ships use the same waters intensively without getting in each other's way. The quay walls and dolphins where ships berth are rich with weeds, algae, sea anemones and oysters which, in turn, are food for crabs, fish and birds. Wherever possible, the natural intertidal zone has been restored.

Neighbouring regions have also invested in the delta ecosystem, giving fish and birds a range of possibilities to migrate, spawn and forage. In turn, this has a positive effect on populations in the port area itself.

Highlander cattle on the Rozenburg Headland

Keeping nature in mind

When developing port areas or building infrastructure, we consider the quality of the living environment. We design with nature in mind and prevent harm to protected nature. Where any effects on nature are inevitable, we offset them. This requires professional management and well-considered choices. We aim to strike a healthy balance in the port between plants, people and animals with our 'habitat approach'.

We provide high-quality, space for species such as natterjack toads, buzzards, bats like common and Nathusius' pipistrelles, and different seagull species.

Ecological management and monitoring

We let nature take its course on undeveloped areas and other locations such as pipeline strips.
In the western port area, our approach to ecological management is designed to support high levels of biodiversity: we mow less, using a phased approach and removing grass clippings. Mowing is more frequent in the eastern part of the port. We also have an active approach to tackling invasive species such as Japanese knotweed. The extensive monitoring of our flora and fauna means we can choose the right options.

Natterjack toad

Herring gull

Buzzard

Common pipistrelle

Facilitating migration

The port's location on the coast and at the estuary of the Rhine-Meuse river area means that it has specific characteristics. It's the perfect habitat for pioneer and coastal species such as waders, migratory fish such as eels and salmon, natterjack toads and a range of orchids. These plants and animals spread quickly from one area to another along roadsides, pipeline strips and similar avenues. In addition, 'ecological stepping stones' have been positioned in the port at strategic locations. These are natural waypoints on the routes along which animals and plants migrate. An example is the public transport hub on the Hartel Canal, which enlarged the Krabbeplas ecological stepping stone. The New Waterway continues to be an open connection to the sea and large numbers of fish take this route when they migrate annually.

Marsh marigold

Nature-inclusive principles

During the design phase of infrastructure projects, we take into consideration the ecological environment in place and look at how to further develop the flora and fauna that is present. During tender procedures, we look at what clients do to further conservation and development. We also encourage the construction of green roofs as a way to improve biodiversity and as buffers to prevent flooding. Or we provide shelter for species that live in buildings, such as the sparrow.

Nature on land

The western port areas are home to the 'key areas' where nature is the priority. They include the Bird Valley, the Entrance Area, the Geuzen Wood and the Rozenburg Headland. The Krabbenterrein and Kleine Beer Island are ecological stepping stones. These areas, in combination with the pipeline strips and other sites, make up the port's green backbone.

In the eastern port area, the key nature areas are more self-contained and they are used more for leisure purposes. They include the Quarantine area on Heijplaat and the Louterbloemen Park in Dordrecht. The remaining outdoor space is primarily for industry and other port activities, and so there is less room for nature.

N15 Pipeline strip (Hartelstrook) in bloom, Maasvlakte 2

But there are still ecological opportunities in the eastern port area. The area is populated by bats, sparrows, small mammals and insects.

In some cases, collaboration is needed on a regional or national scale. Take, for example, the large numbers of seagulls that now breed at locations in the port which have been earmarked for development in the future. We are currently looking at ways to make these birds less dependent on the port. Similar considerations apply to bats and pioneer species such as smooth cat's ear.

Nature in and along the water

The development of the port of Rotterdam has had a major impact on the Rhine-Meuse delta. The infrastructure for shipping and port activity limits opportunities for nature in many places. But the open connection between the North Sea and the hinterland also has major potential for the creation of favourable ecological conditions. And in some ways, infrastructure actually creates specific biotopes.

The largest potential gains are to be found in the western port area: New Waterway, Scheur, the Caland Canal, the Hartel Canal, and the Maasvlakte and Europoort port basins. The water here is salty or brackish, and the banks and quay walls resemble rocky coastlines, making the area appealing for many species. Biodiversity is enhanced by using materials that favour algae and shellfish on banks, quay walls, dolphins and jetties. In turn, the algae and shellfish attract larger species higher up the food chain.

The fresh water of the eastern port area (Nieuwe Maas, Oude Maas, Vondelingenplaat port basins and the area to the east of them) makes it particularly suitable for improving vegetation on quay walls and banks and, where possible, floating islands with green plants.

Throughout the delta and the Haringvliet, we work together with a range of other organisations. For example on improving water quality, fish migration or the optimisation of dredging. A good example is the Groene Poort in the Scheur near Rozenburg.

Aerial view of Rozenburg Headland and Caland Canal Left: New Waterway / Scheur. Right: Caland Canal.

Would you like to know more?

Discover nature in the Port of Rotterdam and how we are working on biodiversity.

Visit **Nature in the port**.

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