



## Design sketch Perkpolder



## The project partners

The following public-sector bodies and private parties work together to develop the Perkpolder area:

- Municipality of Hulst
- Department of Transport, Public Works and Water Management
- Province of Zeeland
- District Water Board of Zeeuws-Vlaanderen
- Government Properties Administration
- ComCoast
- Property developer Rabo Vastgoed
- Property developer AM
- Dutch Forestry Commission
- Department for Rural areas

## Colophon

### Project management ComCoast

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### Photography

Rijkswaterstaat; Nelie Houtekamer; Limit Fotografie

### Artist Impression

Buro Lubbers, Den Bosch, The Netherlands

August, 2007



1. Anticipating the option of a primary dike which is resistant to wave splash-over in the future (>50 years) with residential units and recreation against a background of natural saltwater developments in an area of reduced tidal amplitudes.
2. Creation of a raised and dry bastion (Heart of Perkpolder).
3. Salt marshes created by managed realignment. Due to deposition of sediments the height of the salt marsh can keep up with the pace of sea level rise.
4. Marina



## The most important milestones in the project

signing of a statement of intent for the development of the Perkpolder area	publication of the initial MER (Dutch acronym for: Environmental Impact Assessment) memorandum	information evening for local residents on the initial MER memorandum	selection of private parties for carrying out feasibility study	ComCoast organizes design workshop	five design workshops with participation of all parties	informal presentation to the town council	cost-benefit analysis / approval of design sketch / joint communication strategy prepared	municipal elections followed by appointment of a new chairman of the municipal project committee	study of feasibility and land use	the municipality declares the Municipal Preference Act to be applicable in order to prevent speculators from purchasing the land in the project area	information evenings for land owners and interested parties	individual discussions with landowners	public-sector parties prepare a management agreement to govern their cooperation	establishment of a sounding board group of socially relevant organizations	information market for interested parties regarding the draft MER and zoning plan	preliminary assessment of the draft MER report by the MER Commission	multidisciplinary study of dike resistant to wave splash-over	the website <a href="http://www.perkpolder.nl">www.perkpolder.nl</a> is launched	management agreement (planned)
June 10 2004	January 2005	February 2005	July 2005	September 2005	Sept - Dec 2005	November 2005	February 2006	March 2006	starting March 2006	May 2006	July 2006	autumn 2006	starting autumn 06	February 2007	March 8 2007	March 2007	April - Sept. 2007	May 2007	December 2007



PROJECT WITH FINANCIAL SUPPORT OF THE EUROPEAN UNION

## ComCoast Project Perkpolder (NL)



## What is ComCoast

The countries bordering the North Sea wish to ensure that the coastal area remains safe and liveable, even if the climate changes and the sea level rises. Denmark, England, the Netherlands, Germany and Belgium are therefore pooling their resources in the fight against flooding. Within the ComCoast project, they are developing and demonstrating new methods for managing and developing the coastal zone. The goal is to make the coastal area a safer and more attractive place to live, to undertake new initiatives, and to enjoy recreational activities.

The countries named above intend to accomplish this by working together with local residents, entrepreneurs, government organizations and organized interest groups to find environmentally and economically durable solutions for flood safety which are also appropriate to the local social and cultural setting. Communication with residents and other interested parties is therefore an important element of ComCoast.

ComCoast is subsidized by the EU (programme Interreg IIIb North Sea).





# Perkpolder Pilot

# Contributions by ComCoast

# New insights and lessons learned

One of ComCoast's 10 pilot projects is the renovation of Perkpolder in the Netherlands. Only a few years ago, Perkpolder was a busy ferry port on the Westerschelde estuary. But since the opening of the Westerschelde tunnel, the ferry has no longer been in use, and the port has become deserted.

Three different parties saw opportunities for finding a new use for the location. The municipality of Hulst and the province of Zeeland wished to make use of the area

in order to strengthen the economy and quality of life of the surrounding area. The Department of Waterways and Public Works saw excellent opportunities here for compensating the loss of nature-related value in the Westerschelde resulting from enlargement of the navigation channel. In addition, encouraged by the ComCoast project, the public-sector bodies involved saw opportunities for the use of innovative flood protection methods.

## Joint design

The various parties involved participated in five workshops to first prepare a shared analysis of the area and then develop the Perkpolder Plan, under the guidance of an independent panel chairman. Each party temporarily let go of its own idea and participated in a creative process aimed at developing an integrated plan in accordance with the principles of urban and rural development planning. Landscape architects and urban planners worked out the results of each workshop and presented them during a following workshop. This approach kick-started the project and injected a great deal of creativity. The result was the formulation of a joint plan for Perkpolder in just a few months. The private parties AM and Rabo Vastgoed have already carried out a feasibility study. All the parties involved intend to set out their mutual responsibilities and financial contributions in management agreements by the end of 2007 or beginning of 2008.



## Perkpolder Plan

**'Enjoying the elements' is the motto formulated by the participating parties for the Perkpolder Plan. Point of departure is that the landscape plays a critical role in facilitating the functionalities available in the area. The plan consists of the following elements:**

- The heart of Perkpolder consists of an exclusive residential complex located on the raised open square of the old ferry, with a luxury hotel and a marina, surrounded by a newly developed area of natural beauty.
- A nature reserve, the 'Eastern Perkpolder', part of which lies outside the dikes, lies next to the heart of Perkpolder.
- The Eastern Perkpolder will be protected by a new dike which, in combination with the old one, will form a broad flood protection zone.
- Within the Greater Perkpolder Area, on the other side of the heart, holiday residential units will be visible as 'guests' in the landscape, surrounded by new saltwater areas of natural beauty.
- The existing beach on the Westerschelde will get a 'quality upgrade'.
- A golf course will soon wind its way through the landscape.

**ComCoast has contributed to the design of the flood protection zone. It has also contributed to the development of the Perkpolder area by encouraging cooperation between the various parties as well as communication with the local population.**

### To achieve the above, ComCoast took the following initiatives:

To launch the process, ComCoast organized a design workshop, which provided the basis for the Area Development. ComCoast made sure that the Area Development includes the development of a safe and enduring flood protection zone.

#### The following elements of the plan contribute to this goal:

1. An elevated bastion with houses, hotel and marina: the bastion is expected to have sufficient elevation to ensure that it will be safe from a rising sea water level for the next 200 years.
2. The natural development of a salt marsh which acts as a buffer in front of the new sea dike for the Eastern Perkpolder. The salt marsh protects the dike from the waves. The process of silt deposition on the salt marsh is expected to keep pace with the rising sea water level. The old dike acts as a breakwater for the new dike, which will be located more land inwards. The two dikes together form the new flood protection zone.
3. The Western Perkpolder Area is also an example of a broad flood protection zone. In future, the dike can be modified to ensure that it will also withstand waves washing over the top. Under extreme conditions, the biggest waves would then be able to overtop the dike without compromising its safety. The manner in which the polder is now being structured already takes this

aspect into account. Holiday residential units will be supported by posts or terps, and the newly developing natural landscape will flourish under the influence of a saltwater environment. ComCoast is now studying the possibilities for organizing and developing the Western Perkpolder Area and which agreements need to be made in that regard.

ComCoast carried out a social cost-benefit analysis on the basis of index numbers. This analysis made it clear that the intended development of areas of natural beauty would add to the value of the residential units and the recreational opportunities. New jobs would be created in the region. On balance, the integrated plan would benefit the entire region. The results of this analysis provided an important impetus for the public-sector bodies involved to continue participating in the plan.

ComCoast contributed to the communication plan of the Area Development and developed a joint communication strategy. As part of this strategy, a sounding board group was set up including socially relevant organizations, and the local population is being provided with information about the plans on a regular basis via information evenings, the municipality website, and the local newsletter from the municipality.

The international partners in ComCoast have provided knowledge and expertise for the Perkpolder pilot location.



**The Perkpolder project has provided insights which are important when it comes to developing new forms of coastal zone management:**

### Working together

If the parties participating in a project really want to get things done, the project generally gets off to a good start. If all the parties involved participate in the design process, a solid plan with broad support can usually be formulated in a short period of time. In such a process, public-sector bodies and private organizations can complement each other quite nicely. At the start of the project, it's important for the parties to commit themselves to working together. At a later stage, they must agree on the distribution of roles and responsibilities in executing the project. A decision-making process with the participation of many parties takes time; the existence of cultural differences between organizations also requires the necessary attention.

### Flood protection zone

New methods for flood protection have a great impact on environmental planning. The probability of success is maximized when innovative plans for flood protection are part of an integrated regional development plan. On balance, a broad flood protection zone can provide space for housing, nature and recreation. In Perkpolder, for example, the development of new areas of natural beauty means that residential units will be situated within an attractive environmental landscape. To accomplish this, it was important during the design phase to ensure that the desired developments from the perspective of environmental and

towns & country planning would be coordinated as effectively as possible with the construction of the flood protection system. Point of departure regarding the latter was that the construction would have to be capable of lasting for 50 years. A zone reserved for future use provides space to strengthen the dike for a period of 200 years. This means that the design will also be able to deal with a future rise in the sea level.

### Cost-benefit analysis

The results of a social cost-benefit analysis can help public-sector bodies in taking relevant decisions. A broad flood protection zone with a variety of uses can result in a positive balance for society.

### Public participation and communication

The presence of a local standard bearer for a project can instil the local population with confidence and enthusiasm. In Perkpolder, the local administrators threw their weight behind the plan. It's important to communicate regularly with the surrounding population and organizations, even if the parties involved need a great deal of time for study and/or negotiations. Long periods of 'radio silence' make people dissatisfied and/or suspicious. Personal communication, for example with landowners, is often very effective. The communication process regarding Perkpolder took place via information evenings, personal conversations and a website.



### All ComCoast pilots

1. Rømø (DK)
2. Nessmersiel (D)
3. Polder Breebaart (NL)
4. Hondsbosse Zeewering (NL)
5. Ellewoutsdijk (NL)
6. Perkpolder (NL)
7. Kruike - Bazel - Rupelmonde (BE)
8. Hamme Lippenbroek (BE)
9. Abbotts Hall (UK)
10. Horsey Island (UK)