



DELTA IN TIMES OF CLIMATE CHANGE II

INTERNATIONAL CONFERENCE

OPPORTUNITIES FOR PEOPLE, SCIENCE, CITIES AND BUSINESS
 ROTTERDAM THE NETHERLANDS, 24-26 SEPTEMBER 2014

Deltas in Practice, policy-practice sessions	
Deltas in Practice Theme 3 Urban design and infrastructure	
DP 3.5 Multifunctional water storage: Eendragtspolder	
Chair	Toon van der Klugt, Regional Water Authority Schieland en de Krimpenerwaard, the Netherlands
Organised by	Marc den Ouden, Regional Water Authority Schieland en de Krimpenerwaard, the Netherlands
Presentations	<ul style="list-style-type: none"> • Johan Helmer, Regional Water Authority Schieland en de Krimpenerwaard, the Netherlands • Hans Sytsema, Regional Recreation Authority Rottemeren, the Netherlands
Panel	<ul style="list-style-type: none"> • Johan Helmer, Regional Water Authority Schieland en de Krimpenerwaard, the Netherlands • Monique Melger, Province of South Holland, the Netherlands • Arjan de Vries, Municipality of Zuidplas, the Netherlands • B.J.B. van Gaell, City of Rotterdam, the Netherlands • Hans Sytsema, Regional Recreation Authority Rottemeren, the Netherlands
Session topic	<ul style="list-style-type: none"> • The multifunctional water storage facility in the Eendragtspolder, the largest in the Netherlands, prevents the Rotterdam area from flooding during heavy rainfall
Objective of the session	<ul style="list-style-type: none"> • What can we learn from the multifunctional water storage facility in the Eendragtspolder? Not just from the technical challenges of this project but also from the process of collaboration.
Main conclusions and lessons learnt from the presentations	
<p>The multifunctional water storage Eendragtspolder prevents flooding during heavy rainfall in the Rotterdam area. Furthermore, it is a new recreational area in this densely populated region. It houses a brand new rowing course that meets the Olympic standards. The Eendragtspolder is a typical Dutch peat polder, that subsides 1cm each year, in other words 100 cm in 100 years. The multifunctional water storage takes the influences of climate change into account, but a shortage in water storage capacity already existed. Therefore an additional water retention of 3.000.000 m³ had to be created. But as a result of tidal movement of the sea, the emergency retention should even be larger: 4.000.000 m³.</p> <p>The plan to create additional water storage was combined with another societal need: a study in 2003 pointed out that the integration of 4.000.000 m³ water storage was possible with a recreational territory. In 2005 the City of Rotterdam joined a collaboration in order to develop an international rowing course in the area. This led towards a successful collaboration between the province of South Holland, the cities of Zuidplas and Rotterdam, Recreational Authority Rottemeren and the district Water Authority.</p> <p>The final design was a combination of 2 major components: the rowing course with possibilities for overflow (3.000.000 m³) and marshes (1.000.000 m³). The stored water is pumped back into the Rotte.</p> <p>In the beginning water quality was a big issue. The concentration of phosphorus in the Rotte bosson was too high, but also the ground deliver was too much because of the agricultural past of the area. The phosphorus was removed from the stored water and limitations on feeding birds were put in place. Additionally, the top layers of the area were removed. Now the water is clear</p>	





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and the water storage has already been used in three occasions.

Main conclusions of the discussion

All the organisations involved are proud of the collaboration. When each organisation had tried to reach their goals on their own, no one would have been successful. For example, the Regional Recreation Authority wanted to expand the recreational area but it had no money to do so and there was no urgency. Only because the partners wanted to collaborate, they achieved their own goals.

Main result or conclusion of the session

- Collaboration is essential for achieving goals
- Although you do not get exactly what you planned out to get, the result is a good one.
In this case: $1 + 1 = 3$
- Agreements help to collaborate
- Combining different money flows is very successful
- The collaboration is still going on now the project is finished. People know how to find and help each other.

Most exciting insights or outcomes

- Very proud of the successful collaboration
- When we would have done it on our own, we would not have had it .

