# Water Assessment in the Netherlands

The Netherlands is a highly urbanised delta of which a great part is situated below sea level. In the

past decade the country has been faced with extremely high river discharges which forced thousands of people to evacuate, with flooded areas caused by extreme rainfall, with groundwater problems in urban areas and desiccation of nature.

It is widely acknowledged that, to prevent a further increase of these problems, changes are necessary in water management as well as in spatial planning. To ensure the integration of water aspects into the spatial planning process, 'Water Assessment' has been introduced in 2001.

Water Assessment is a process in which water managers are involved actively in the development of any spatial plan from the earliest stages on. This instrument has only recently been introduced, but the results up till now are promising.

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### Water Assessment

In contrast with what the name may suggest, Water Assessment (WA) is a process of interaction during spatial design, rather than a test on water aspects of a completed spatial plan.

### The objectives of Water Assessment

The objectives of WA are to guarantee that water interests are taken into account in spatial and land use planning, so that negative effects on the water system are prevented or compensated for elsewhere. This integration of water in spatial planning works in two ways: a plan is assessed on its implications for the water system and the restraints that the water system puts on land use are made explicit.

#### Implementation history

In 2001 the government organisations in the Netherlands agreed on the implementation of WA for all spatial plans and decisions relevant to water. After two experimental years the experiences were evaluated. From November 2003 WA has become obligatory for the formal spatial plans, such as municipal land-use plans and provincial spatial policy plans. In addition, government organisations agreed to continue to apply WA to all other non-formal plans and decisions relevant to water, such as spatial perspectives and lands-cape plans. Thus WA is applied to all scales of spatial planning, from national to local, and to all sorts of plans: urbanisation, industrial areas, infrastructure, landscape planning etc. A building permit itself may not be subject to WA, if the water interests have been sufficiently covered in the WA of the higher-level plan for example the municipal land-use plan.

### The process of Water Assessment

WA is not meant to be a new procedure, but a process of interaction that is fully integrated into existing spatial planning procedures. When Environmental Impact Assessment or Strategic Environmental Assessment (as prescribed by the EU) has to take place as well, both assessments partly take place parallel and provide each other with information.

	Initial phase	Spatial planning authority Informs the water authority in the earliest stages of the plan, invites it to participate and asks for information about the water system concerned.	Water authority Informs the spatial planning authority about the water system, relevant policies, criteria and priorities.
	Agreement on criteria and process	Spatial planning authority and water authority together Agree on the assessment criteria and the interactions and responsibilities in the following process of spatial planning.	
	Developing phase	Spatial planning authority Designs the draft spatial plan, taking the water criteria into account, and involves the water authority in the designing process.	Water authority Is actively involved in the development of the plan.
	Water Recommendation	Water authority Checks if the agreed water criteria are met in the draft spatial plan and writes a Water Recommendation.	
	Decision- making phase Water	Spatial planning authority Makes final decisions about the plan and describes in a water paragraph how water has been taken account of. If water criteria will not be met, reasons and measures for compensation must be described.	
Paragraph			
	Reviewing phase	Higher authority Reviews the spatial plan including the water aspects and the process of WA.	

### The actors in Water Assessment

In the process of WA there are three formal actors: the spatial planning authority, the water authority and the higher authority which has to give its final approval to the plan. In the case of the municipal land-use plan, the municipality is the spatial planning authority and the province is the higher authority. If the impact on water crosses existing boundaries between water authorities or if the plan affects both surface water and groundwater, more than one water authority may be involved.

Private parties such as developers and external consultants can also participate. External consultants can facilitate the process, or provide technical information or innovative design. They cannot, however, take the place of one of the formal actors as these have their own formal responsibilities in the planning process.

## The initial phase $\rightarrow$ Agreements on water criteria and cooperation during the planning process

In the initial phase, which starts as soon as the ideas about the plan start developing, the spatial planning authority takes the initiative to inform the water authority. The water authority provides information about the water system and the priorities in water management for that specific area. Together they define the criteria for water which the urban and landscape designers and architects have to take into consideration. The result of this initial phase is an agreement on the assessment criteria and the further process to be followed.

### The developing phase > Water Recommendation

In this phase the water authority and the spatial planning authority work interactively and creatively together on the design of the plan. The resulting draft plan is formally sent to the water authority with a request to give a Water Recommendation. The water authority checks if the agreed water criteria are addressed in the draft spatial plan in a satisfactory way. In the Water Recommendation - which is a formal advice - the water authority informs the spatial planning authority on its findings and makes, if necessary, recommendations for adjustments of the plan. If the process of interaction has been successful this Water Recommendation brings no new surprises!

### The decision-making phase $\rightarrow$ Water Paragraph

Based on the Water Recommendation the spatial planning authority makes the necessary final adjustments to the plan. If the spatial planning authority proceeds with the plan contrary to the advice of the water authority, these choices have to be motivated. A Water Paragraph, which has to be a part of the plan, outlines the consideration which has been given to water issues as a result of the WA process. Specifically it describes the Water Recommendation and how this has affected the development of the plan, including compensatory measures if the water criteria can not be met in the plan itself.

#### The reviewing phase $\rightarrow$ A "go!" for realisation

In the case of formal spatial plans an approval from a higher authority is obligatory. The water authority sends its Water Recommendation to this higher authority so that it can compare this to the plan itself. Water and the process of WA are aspects on which the higher authority can deny its approval of (a part of) the plan.

### Key features to the success of Water Assessment

### The sooner the water authority is engaged in the planning process the better!

This is crucial! Spatial planning authority and water authority should work together on the spatial plan on the basis of their own responsibilities. They inform each other about the plan, relevant policies and important issues. The sooner the water authority is engaged in the development of the spatial plan the easier it will be to integrate water into the design and the smaller the risk of delay at a later stage.

This obligation of early interaction slowly starts to bring about a change of attitude from reactive to pro-active. Both parties sense the need to anticipate on each other's upcoming plans and policies. A mutual understanding of each other's point of view and possibilities is growing.

### The largest benefit of WA lies in the choice of the right locations!

Long before a building location is formally decided upon, many informal stages of planning will have passed. From the point of view of the water authorities, the most important choices are normally made in these early stages of informal planning or in plans with a high level of abstraction. This implies that it is very important for the water authorities to be continuously alert on spatial developments within their region.

### It is a flexible process, not a detailed prescription!

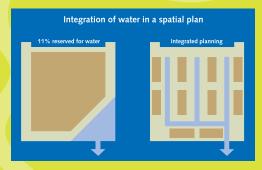
Spatial plan procedures vary widely regarding procedural steps, public consultation and complexity. Thus the process of WA also varies in intensity of consultation, in detail of criteria, and in time. Especially if it concerns a large complex plan, the agreement on the cooperation that is made in the initial phase of the WA is important and the Water Recommendation may be an extensive document. In the contrast, for small plans the WA can consist of one phone call, a short letter from the water authority with one or two issues to take into account and two lines in the plan itself. It is up to the actors to decide on the precise steps to be taken!

### Tailor-made criteria for each individual spatial plan!

In WA there are no fixed criteria! In the initial phase of WA the spatial planning authority and water authority together agree on the criteria to be met in the plan. Thus the criteria are tailor-made for each individual plan and can concern all aspects of the water system: susceptibility to flooding, groundwater levels, soil subsidence, sewage, water quality and ecology. The criteria are based on knowledge of the water system at hand, on all relevant legislation and policies and on existing spatial plans of a higher authority. The level of detail of the criteria has to fit to the level of detail of the criteria must be.

### Translating water criteria into spatial criteria

An extra effort needs to be taken to 'translate' the technical criteria used by the water authorities into spatial criteria which can be used in the plan design itself. For example, it is easy to postulate that 11 percent of the plan area has to be reserved for water, but the real success is achieved by integrated planning leading to better drainage control and a more appealing physical environment.



### No separate provisions for legal appeal

The WA process is integrated into the formally prescribed procedure for the establishment of spatial plans, and in itself does not include public consultation or possibilities to lodge formal objections or legal appeal. The public, private parties and NGO's can use the possibilities of the spatial plan procedure to react to water related issues in the spatial plan. The water manager can also use these possibilities in case it doesn't agree with the final spatial plan.



### Agreements on who pays what!

In general the spatial planning authority must fund the measures that are required to keep the water system in the condition prior to the realisation of the new plan. In the case that a private party such as a developer is the actual initiator of the plan, it will have to compensate the spatial planning authority for the costs of these measures. However, if prior to the realisation of the plan the water system does not meet the current standards as defined in national policies, the water authority must carry the costs to put the water system in order. In any case it is crucial that parties agree on who pays what before the decision-making phase is reached.

As for the WA itself, the water authority carries the costs that go with providing the Water Recommendation. The spatial planning authority is responsible for the funding of extra research, if needed.

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