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Figure 1. (below).  
Scheveningen boulevard (photo courtesy  
Trudes Heems).

Figure 2 (page 78).  
The 1918 Zuiderzeewet - Law for closing  
off the Southern Sea  
(source: Nieuwland  
Erfgoedcentrum,  
Lelystad).



Nikki Brand

## LEGISLATION AND REGULATION IN SPATIAL PLANNING FOR MULTIFUNCTIONAL FLOOD DEFENSE DESIGN

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Can the recent rise of Dutch multifunctional flood defenses be explained by the increased integration between the water and spatial planning sectors, which compels Water Boards to collaborate with municipalities? An enquiry into the changing relations between water managers and municipalities as a result of changes in spatial and water-management regulations starting in the 1980s, and particularly since 2000s, indicates this hypothesis to be wrong.

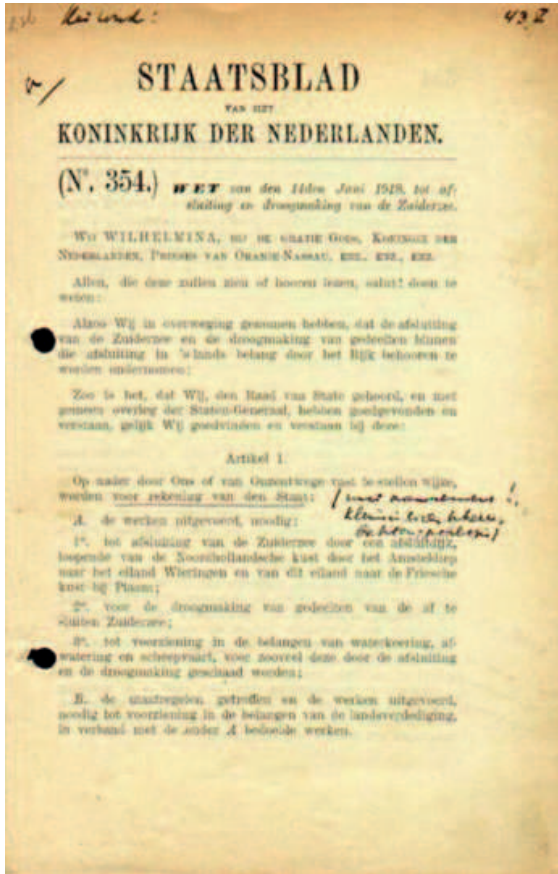
In the Netherlands, the responsibility for spatial planning is officially assigned to the three tiers of government (Kingdom, provinces and municipalities). The responsibility for water management, on the other hand, is assigned to the single-purpose authority of an independent water manager. This can be the regional Water Authority or the national agency, *Rijkswaterstaat*. The Water Authorities formally do not possess spatial planning competences. In 2003, the national policy agreement on water management in the 21st century (*Nationaal Bestuursakkoord Water 21<sup>e</sup> eeuw*) led to changes in regulation. The policy agreement aimed to safeguard space for waterstorage, a goal of the Water Authorities that required the assistance of spatial planning competences that exclusively belong to the municipality.

In theory, increased interdependency between water and spatial planning sectors could have forced Water Authorities to negotiate with municipalities. Municipalities, in exchange for accommodating the Water Authorities' needs, would expect their various interests be accommodated. This 'spatial track' followed by water interests in pursuit of their goals may explain the construction of recent multifunctional flood defenses like the Scheveningen Boulevard, Katwijk's parking garage or Rotterdam's Roof Park. The water

sector would not have been unique in this approach. Other sectors, such as heritage conservation, also addressed their goals using an integrated spatial planning approach in this period (Janssen et al., 2014).

*Legislation and regulation regarding water management and spatial planning*  
However, the historical record presents a different story of the changing relations between water managers and municipalities. In the nineteenth century, a series of acts laid out the foundations for the relations between the Water Authorities with the other governmental entities of the Kingdom, the provinces and the municipalities (Driesprong, 2004). In 1850, the *Provinciewet* (Province Act) formally established that the Province should supervise flood defenses managed by regional Water Authorities. '*Waterstaatswerken*' (national water works), waters, flood defenses and road infrastructure of national concern were managed by the Kingdom, and thus exempted from Provincial supervision. The Kingdom was given many powers in the 1891 *Wet Beheer Waterstaatswerken* (Management of National Water Works Act).

The Kingdom's executive agency regarding these matters, *Rijkswaterstaat*, could make decisions independent of the Province. Moreover, the Act explicitly prohibited use of the flood defense other than for flood safety, unless the responsible Minister granted permission. At the time, the municipality had no official role in water management, though local governments were authorized to regulate land use in the 1960s. Where local and regional Water Authorities had to deal with supervision by the Province in general, *Rijkswaterstaat* only had to gather approval for the creation of new land, a provision arranged in the 1900 *Waterstaatswet* (National Water Works Act).



Relations between the different government entities and their responsibilities remained unchanged in the first sixty years of the 20th century. The 1921 *Zuiderzeewet* (Southern Sea Act) and the 1958 *Deltawet* (Delta Act) were both executive laws, enabling the construction of the Dutch grand feats of engineering: the Zuiderzee Works and the Delta Works. Both acts were rescinded in 2005, well after the works were completed. The 1968 *Wet op de Ruimtelijke Ordening* (Spatial Planning Act) represented a change, though at the time it did not affect water management. The act permitted the government to intervene in societal developments that had a spatial dimension, balancing and coordinating spatial claims in designated land uses (Driesprong, 2004). These land uses were to be recorded in mandatory land use plans, issued solely by the municipality (Hobma & Schutte-Postma, 2010). The act focused primarily on the procedures to be followed in spatial planning, and established a hierarchy of plans. Within the plan hierarchy only the local land use plan was binding for citizens. The local land use plan had to be adapted to the spatial or single-issue policy documents of higher-tier authorities.

Up until the late 1980s, spatial planning and water management developed separately; they were yet to integrate. In the 1990s, a revolution in flood safety and water management legislation took place. The construction and management of flood defenses was addressed in a series of Acts like the 1992 *Waterschapswet* (Water Authority Act), 1995 *Deltawet Grote Rivieren* (Delta Act Large Rivers), 1996 *Wet op de Waterkering* (Flood Defense Act), complemented by *Derde Nota Waterhuishouding*, 1989, and *Vierde Nota Waterhuishouding*, 1998 (the third and fourth Memoranda on Water Management) (Driesprong, 2004). The Flood Defense Act introduced a number of concepts that remain central to contemporary Dutch water management: the difference between primary and regional flood defenses, the introduction of national dike-rings with designated safety standards, the Basic Coastline, national hydraulic boundary conditions, and mandatory reporting by both *Rijkswaterstaat* and the Water Authorities.

Taken together, these acts had a significant impact on the relations between municipality and water manager: while the organization and obligations of the Water Authorities were increasingly regulated (limiting their independence since the 1993 Act), water managers could evade mandatory procedures regarding consultation and objections, directly issuing permits when flood defenses had to be strengthened, using the regulations from 1992 and 1995. The 1995 act regarding the large rivers, and the 1996 act addressing flood defense, both responded to the near-flood events in the early 1990s. High water on the Maas River demanded the evacuation of many citizens, and prompted awareness that flood defenses had to be strengthened to prepare for an emergency. The 1995 and 1996 acts formalized this quick route, which permitted lengthy spatial planning procedures to be skipped. The 1992 Water Authority Act stated that the Water Authority could issue requirements and prohibitions, using a policy known as the *'keur'*. In practice, the *keur* provided a legal tool with which Water Authorities could regulate land use in three spatial zones on and surrounding flood defenses. This tool was to guarantee that any new structures in these three zones would not jeopardize the integrity of the flood defense, nor the possibilities to broaden the structure in the future, should the need arise (Stowa, 2011, 2016).

Thus, the 1992 act gave Water Authorities a tool that *Rijkswaterstaat* had possessed since 1891, whereas they had previously had to rely (at least in theory) on the municipal land use plan. Anyone wanting to build anything on or near the flood defense had to request at least two permits: one from the Water Authority, and one from the municipality. So, in sharp contrast to the assumption, by the end of the twentieth century regulations strengthened the water manager's authority over land use on and near the flood defense.

In the first decades of the twenty-first century, water interests have been even more intensively integrated into spatial plans. This has, in turn, increased the ability of water managers to influence spatial plans to accommodate their goals. First, in 2001, the *Bestuurlijke Notitie Watertoets* (Administra-

tive Memorandum 'Water Assessment') made consulting water managers when drafting land use plans mandatory. Second, there has been a clear move towards simplifying and integrating regulation into a few comprehensive acts. In 2005, the *Waterwet* (Water Act) replaced the Water Authority Act, the Flood Defense Act and the Delta Act on the large rivers. The Water Act also formalized the 2001 requirement to consult water managers during the design of spatial plans, and introduced a variety of bureaucratic documents enabling collaboration between different governmental agencies. For the spatial planning sector, the 2008 *Wet op de ruimtelijke ordening* (Spatial planning act) and the 2011 *Besluit algemene regels ruimtelijke ordening* (Decree general regulations for spatial planning, also known as 'Barro') aimed to simplify procedures, by combining different permit systems. The permit systems of the water manager and the municipality were merged into the single *omgevingsvergunning* (environmental permit). Barro also requires the protection zones of primary flood defenses to be translated into land use plans.

*Concluding remarks*

The exploration of the changed dependency between water managers on the one hand and the municipality on the other does not confirm the hypothesis of an increasingly dependent water board that has to compromise in order to use municipal planning competences. Rather, water managers have used provisions in the new acts to become increasingly independent from municipalities. While these provisions require that water managers be consulted in spatial procedures, other provisions offer the opportunity to bypass the municipalities' powers when flood safety may be compromised. Spatial tools within the land use plan add another layer of spatial protection to the integrity of flood defenses. An example is the mandatory translation of protection zones into zoning overlays (*dubbelbestemming*). Originally these were only protected by the assessment process of the permit system.

What factors have been decisive for the rise of multifunctional flood defenses in the first fifteen years of the new millennium remains out of scope. It could be that lack of space

in Dutch waterfronts has encouraged the combination of functions at sites that used to accommodate only one function, flood safety. It is also possible that multifunctional uses of flood defenses have been made explicit - as is the case with the Scheveningen Boulevard. However, a broader phenomenon could also be at work: the weakening of Modernism as the defining way of looking at the world around us (Janssen et al., 2014).

Modernist planning and architecture have been associated with functionality, uniformity and separation of functions. This was not only the case with spatial designs, but the way government was organized, with different ministries pursuing separate goals (Meyer et al., 2014). Although modernist thinking was challenged by the late 1970s democratization movement (Janssen et al., 2014), the shift in paradigm seems to have become more pronounced in the new millennium (Meyer et al., 2014). This is partly due to a growing awareness of quality and the environment we live in (Janssen et al., 2014), but also a movement towards plurality. In an interview about the planning process of flood defenses, a water manager at the Delfland Water Authority stated: "We do not accommodate multiple interests because it's mandatory, but because it is the right thing to do." Maybe, instead of looking at regulatory issues and the integration of water interests into spatial regulation, we should consider the recent rise of multifunctional flood defenses in the context of this larger phenomenon of increasing interaction and plurality.