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Towards a New Policy for Climate Adaptive Water Management in Flanders: The Concept of Signal Areas

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There is no question that climate change is happening; the only arguable point is what part humans are playing in it
(David Attenborough)

1. Introduction

1.1. Climate change and the physical characteristics of Flanders

Climate change has a significant impact on the hydrological cycle and consequently on the future use of space. Flanders, like the Netherlands, is a low-lying area, and is therefore more vulnerable to changes in sea level, river discharge and rainfall. Furthermore, the so-called 'Flemish Rhomb', situated between Brussels, Antwerp, Leuven and Ghent, along with London, Paris, the Dutch Randstad and the German Ruhr area, is one of the most densely populated areas in the world. As a result, there is a high degree of development, which is increasing exponentially. If Flanders continues to use up open space at the same rate, in 2050 41.5% of the available space will be built up.¹ This puts the open space under extra pressure. All those paved areas at the expense of open space have consequences for the water system:² the surface runoff of water, the peak flows in the rivers and floods. These consequences are strengthened by the impact of climate change. And in relation to this, account should also be taken of the relative sluggishness and irreversibility of spatial developments.

1.2. The Flemish case: how it starts and the metamorphosis

In the light of the foregoing, the need for space for water in spatial planning emerges as a key focus area in a climate-proof spatial strategy. Space, especially open space, is indeed necessary to cope with heavy rainfall and thus to offer a solution to the increasing flooding and floods, as well as to keep up the water

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1 This appears from the doctoral research of Lien Poelemans, *Modelling urban expansion and its hydrological impacts*, KU Leuven, 2010, to consult via: <http://statbel.fgov.be/nl/binaries/MODELLING%20URBAN%20EXPANSION%20AND%20ITS%20HYDROLOGICAL%20IMPACTS_tcm325-116170.pdf> (last visited 17 February 2014).

2 The notion 'water system' is defined broadly as: 'A comprehensive and functional system of surface water, groundwater, its soil and banks, including all organisms living in it and all physical, chemical and biological processes taking place in this environment, and its additional technical infrastructure' (Art. 3(2)(16°) Flemish Decree on Integral Water Policy (FDIWP)).

level to bridge periods of drought and water shortage.³ Therefore, the integration of water management concerns into spatial planning is a crucial factor in a successful adaptation strategy.

Since the Flemish *Decreet betreffende het integraal waterbeleid* (Decree on Integrated Water Policy, FDIWP) of 18 July 2003,⁴ which implements the Water Framework Directive (Directive 2000/60/EC), and its sister directives, inter alia the Directive on Flood Risk Management (Directive 2007/60/EC), the link between water policy and spatial planning is explicitly recognized and legally enshrined. The instrument granting the widest guarantees for the integration of water-related issues in spatial planning and building licensing policy is the Water Check or Water Test (*Watertoets*). This instrument aims, amongst other things, to prevent (more) development in flood-prone areas in order to ensure that the harmful effects of new construction and housing estates on the water system are avoided.

The use of this instrument, however, has not prevented many undeveloped plots in flood-prone areas from being developed for housing or other hard destinations. The reasons for this are many and varied: the fear of compensation claims, the lack of knowledge about the vulnerabilities of the water system among the authorities and civil servants and the lack of political courage to take stringent but necessary measures.⁵ Above all, a solid, overarching water storage policy was lacking as a result of which local authorities applied (and still apply) the Water Test in a very different manner (sometimes strict enough, but often too lax). This leads to legal uncertainty and insufficient protection for the necessary space for water. Besides, the Water Test has one big conceptual disadvantage: it is essentially a passive tool. As long as no spatial development plan is drawn up or a building permit is applied for, everything remains the same. Therefore, and more specifically as a result of the extensive floods of November 2010 and January 2011, the Flemish Government has recently established an innovative policy framework to preserve the water storage capacity in, among others, flood-prone areas. In this context, the concept of 'Signal Areas' (*Signaalgebieden*) has been created. These areas are still undeveloped areas with a hard zoning type or zoning code (residential and industrial zoning) located in flood-prone areas. The great spatial pressure due to both the demand for land for development and space for water storage means that there is a need for policy for as yet undeveloped areas with a hard zoning code located in flood-prone areas. The above-mentioned policy framework outlines in what way one needs to deal with the flood risk in these areas. The intention is to work with tailor-made solutions for each separate area. For this purpose, a comprehensive tool-box is available, such as statutorily required land reparcelling (*herverkaveling uit kracht van wet*), if necessary combined with statutorily required infrastructure or construction works, and coupled with a zoning swap (*bestemmingsruil*), public utility servitudes (easements for the public interest) and the application of a sharpened Water Test. The final objective is to create an efficacious, area-oriented adaptation strategy to water and climate-proof spatial planning in Flanders.

1.3. Aim of the research

This contribution will provide an insight into the legal structure of the above-mentioned concepts and instruments, how they can help to form a stronger link between water management and spatial planning and thus to a solid climate change adaptation strategy, as well as to the factors determining the successes and failures of the new policy framework.

First, the concept of Signal Areas will be considered: the meaning of this concept will be explained as well as how and on what basis the Signal Areas are defined. Next the policy framework within which the new water storage policy and related adaptation measures have taken shape and are being given shape will be discussed. Finally, the instruments that can be used, alone or in combination, to realise this

3 Green Paper Flanders Spatial Policy Plan (*Beleidsplan Ruimte Vlaanderen*), 2012, p. 12, <<http://www.vlaanderen.be/nl/publicaties/detail/groenboek-beleidsplan-ruimte>> (last visited 17 February 2014).

4 See for a short introduction to this Decree F. Maes, 'Integrated water policy in Flanders. The implementation of the EC Framework Directive Water', in J.F. Neuray (ed.), *Directive 2000/60/EC of 23 October 2000 establishing a framework for community action in the field of water policy*, 2005, pp. 29-54.

5 See also Evaluation Report on the Water Test by the *Commissie Integraal Waterbeleid* (Flemish Integral Water Policy Committee, CIW), March 2010, <<http://www.integraalwaterbeleid.be/nl/beleidsinstrumenten/watertoets/nieuw-ub-watertoets/rapport-van-de-bevraging-evaluatie-watertoets.pdf/view>> (last visited 17 February 2014); Evaluation Report on the flooding in 2010 by the Flemish Integral Water Policy Committee, May 2011, <http://www.integraalwaterbeleid.be/nl/over-ciw/opdrachten-ciw/evaluatie-overstromingen/Glob_eval_overstr_nov2010.pdf/view> (last visited 17 February 2014).

new water storage policy will be presented. The existing and still to be developed sets of instruments are examined. The focus will be on the new or updated instruments. If this is deemed useful, a diversion will be made to discuss the issue of (public) compensation for damage due to the application of the water storage policy. The limited scope of this contribution makes it impossible to examine all the schemes in detail. The paper ends with a number of concluding remarks.

The contribution aims to provide an overview of the new water storage governance in Flanders that could act as an inspiration for comparative legal research purposes. Therefore the article is predominately descriptive.

2. Concept of the Signal Areas⁶

On 30 January 2009 the previous Flemish Government adopted 11 sub-River Basin Management Plans (*bekkenbeheerplannen*).⁷ The plans designate areas that are important to the water system, i.e. areas that can play a role in tackling flooding risks because they can be flooded or because they act as a natural sponge due to their physical soil properties.

Sub-River Basin Management Plans (abbreviated as sub-RBMP) distinguish between water conservation areas and current and potential water storage areas. Water conservation areas are areas where precipitation is naturally retained for a long period of time. Because of their specific soil properties they act as a natural sponge by retaining the water for a time and disposing of it slowly. For these reasons, they are particularly important for preventing drought and floods. Current water storage areas include areas that are suitable for water storage and that are also effectively utilized by the water system to store water. Finally, potential water storage areas are areas that experience no flooding, or no longer any flooding (e.g. because the watercourse has been straightened or because dikes have been built), and are physically suitable for storing water. With some interventions, potential water storage areas can be used as effective flood areas. In this context it should be noted that circular LNE/2013/1 (which contains the framework of the new water storage policy), as set out below, focuses on the flood-prone Signal Areas.

Next, it was examined whether these three types of areas have a hard zoning code (residential area, industrial area, area for tourist accommodation, area for commercial and community facilities and area for public utilities in accordance with the spatial development plan) that has not yet been developed. This area-oriented analysis produced several so-called Signal Areas.⁸ Signal Areas are therefore not developed areas where a conflict exists or may exist between the spatial development perspectives and the interests of the water system. It amounts to 11,000 ha, or 0.83% of the Flemish territory. Signal Areas generally have a surface area of between 0.25 and 10 ha.⁹ We are however talking about a first series. In accordance with the policy document on safeguarding water storage capacity, about which more will be said later, a cyclical evaluation system will be created for any additions or adjustments to this first screening. This evaluation will be made based on the scientific understanding of the flood hazard and flood risk maps that should be established with the implementation of the Flood Directive 2007/60/EC no later than 2019, and thereafter assessed every six years and adjusted where needed (Article 14(2)). In that way, Article 5 of the Flood Directive will be implemented through the concept of Signal Areas.

However, the sub-RBMPs make no further statement relating to the future spatial development perspective of the Signal Areas. They simply suggest that these areas, where necessary, should be safeguarded against development or hardening. To give further practical effectuation to the policy on the subject of Signal Areas, the sub-RBMPs only specify that an area-oriented analysis will be started, and in this light also a perspective on the potential spatial development is suggested. The integration of the policy on Signal Areas, designated in the sub-RBMPs, in spatial development planning was therefore

6 See <<http://www.integraalwaterbeleid.be/nl/beleidsinstrumenten/signaalgebieden>> (last visited 17 February 2014).

7 *Belgian Official Journal*, 5 March 2009. This planning regime has meanwhile been abolished (Flemish Decree of 19 July 2013, *Belgian Official Journal*, 1 October 2013). Instead, specific parts relating to sub-river basins will be integrated in the River Basin Management Plans (RBMPs). The integration of the sub-RBMPs in the RBMPs aims to reduce the planning burden.

8 The locations of the several Signal Areas can be seen on the geoportal <<http://www.signaalgebieden.be>> (last visited 17 February 2014).

9 Concept note to the members of the Flemish Government on the approach to safeguarding water storage capacity in the context of short-term action Signal Areas of the Green Paper Flanders Spatial Policy Plan, 29 March 2013, p. 3.

not ensured. The link between the concept of Signal Areas and spatial development planning is made via circular LNE/2013/1, which implements the new water storage policy of the Flemish Government.

3. Policy framework of the new water storage policy

On 29 March 2013, the Flemish Government approved a policy document proposing an approach to safeguarding water storage capacity.¹⁰ The policy document proposes a programmatic approach to safeguarding water storage capacity in areas with a relevant probability of flooding which are indicated as hard zoning codes in the spatial development plans but have not yet been developed, and thus takes the concept of the defined Signal Areas as its starting point. The main principles of this Government policy document are contained in circular LNE/2013/1¹¹ concerning guidelines for the application of the Water Test in order to prevent water storage capacity in Signal Areas.¹²

These Signal Areas were subsequently further assessed on the basis of the flood hazard maps drawn up with the implementation of the Flood Directive (2007/60/EC).¹³ For Signal Areas where the chance of floods is not yet known, the above-mentioned assessment is still based on the 'Water Test maps of flood-prone areas'.¹⁴ Uncertainties are also taken into account when estimating the flood chance, such as climate change scenarios, on the basis of the precautionary principle.¹⁵ On the basis of this assessment a so-called 'next step trajectory' (*vervolgtraject*) for each Signal Area is being determined by the Flemish Government. As a result, the next step trajectory should be climate-proof.

3.1. Proactive policy in the Signal Areas: the next step trajectory

The next step trajectory determines the spatial development perspective in the concerned Signal Areas, and defines which actions have to be taken and which instruments could/should be used for this purpose, ranging from imposing specific restrictions on use or exploitation to rezoning the area. If rezoning is at issue, the spatial development plans should therefore be revised.

The next step trajectory in the Signal Areas depends on the question of whether the current, as yet undeveloped spatial development plan is compatible with the water storage capacity in the concerned Signal Areas or, in other words, a flood risk will occur if one develops the area in accordance with the existing planning zone. Depending on the question of what impact spatial development has on the water storage capacity, the following hypotheses are defined:

- a) If the spatial development in line with the spatial development plan is compatible with the water storage capacity (i.e. no flood risk), the standard instruments will suffice, more specifically, the Water Test, where appropriate coupled with adaptive construction measures.
- b) For areas where this assessment is negative or, in other words, the spatial development of the area in line with the spatial development plan is not compatible with the water storage capacity, a new spatial

10 See: <<http://www.integraalwaterbeleid.be/nl/beleidsinstrumenten/signaalgebieden>> (last visited 17 February 2014).

11 *Belgian Official Journal*, 4 October 2013.

12 *Omzendbrief betreffende de richtlijnen voor de toepassing van de watertoets voor de vrijwaring van het waterbergend vermogen in signaalgebieden*.

13 The geoportal 'Signal Areas' (<<http://signaalgebieden.be>>) shows the actual information about the different flooding probabilities (small, medium, large) of the different Signal Areas.

14 The Water Test map (*Watertoetskaart*), to be consulted at <<http://geo-vlaanderen.agiv.be/geo-vlaanderen/watertoets2012/>> (last visited 17 February 2014) can be regarded as a flood hazard map *avant la lettre*. The map distinguishes between actual flood-prone areas and potential flood-prone areas. Actual flood-prone areas are areas that have experienced recent flooding or areas with a significant chance of flooding. Potential flood-prone areas are areas where floods are only possible during extreme weather circumstances or with the failure of flood defences such as dike breaches. The Water Test map was fully updated in 2012.

15 The precautionary principle is defined in Art. 6(4°) FDIWP. According to Art. 6(4°) FDIWP the precautionary principle means that action to avoid harmful effects should not be postponed on the ground that scientific research has not fully proved a causal link between the act or the omission and the effects thereof. By making this link to the concept of harmful effects, which is defined in Art. 3(2)(17°) FDIWP, the precautionary principle is given a wide scope of application: in addition to preventing floods, among other things, the climate, and the interdependence of these elements are also included. At first sight the legislator has thus adopted a 'hard' precautionary approach; however, on further reflection this should be nuanced and alongside the intended precaution account should also be taken of other stakes, such as economic or social stakes. This emerges from Art. 7 FDIWP, which states that when applying the objectives and principles of integrated water policy, with a view to the multifunctional use of the water system, account should also be taken of economic and social water usage.

development perspective will be established. In this hypothesis the following sub-hypotheses occur, depending on the probability of flooding:

- If the current spatial development plans for the Signal Area are incompatible with the water storage capacity but there is a small probability of flooding, the zoning codes of the plans may remain in place. In view of the safeguarding of the water storage capacity additional measures will however be taken. The instruments recommended for this in the policy document on the safeguarding of the water storage capacity are: the imposition of usage restrictions or obligations to protect the water system, such as urban development regulations within a spatial development plan or spatial ordinances (*stedenbouwkundige verordeningen*).¹⁶
- If the current spatial development plans are incompatible with the water storage capacity and there is also a high probability of flooding, the area needs to be rezoned. To this end the planning instruments used in spatial planning should be deployed, perhaps coupled with land reparcelling, and combined with a zoning swap.
- If the current spatial development plans are incompatible with the water storage capacity and there is a medium probability of flooding, both rezoning and maintaining the zoning code with additional measures may be considered, depending on the specific circumstances.

This new water storage policy has one weak spot. This Achilles' heel concerns the legal status and therefore the enforceability of the 'next step trajectory'. This is especially problematic in case the 'next step trajectory' has to be enshrined via the process of spatial development planning. Decisions of the Flemish Government have limited legal effect. In essence the decision of the Flemish Government about the Signal Area 'next step trajectory' is only a 'green light' for this spatial planning process. The trajectory to be enshrined in the spatial planning process does have certain political and administrative support: indeed, the decision of the Flemish Government concerning the 'next step trajectory' will be preceded by local government consultations and a great number of policy areas are involved in the preparation of the decision on the trajectory. However, this support provides no guarantees that the trajectory will also be confirmed in the spatial plan. The authority adopting the spatial plan is after all not bound by the decision on the 'next step trajectory' and the spatial development perspective provided for therein, not even because it is implemented in circular LNE/2013/1. It cannot therefore be ruled out that, for example based on comments or objections during the public consultations about the plan, the final spatial development objective of the trajectory will not be incorporated or incorporated fully in the spatial plan.

3.2. Preservative policy

To prevent the foreclosure of the development perspective set out in the 'next step trajectory', a protective policy will be deployed in the problematic Signal Areas. After all, the spatial planning process, that must be passed through in order to anchor the spatial development perspective of the trajectory, is relatively slow.

This preservative policy will also be used in Signal Areas where the 'next step trajectory' has not yet been approved by the Flemish Government. Therefore the preservative policy has a broad field of application: all flood-prone areas with 'hard' spatial zoning codes are targeted.

The protective policy to be deployed depends on several criteria, whereby the flood chance is dominant. However, the existing development within the Signal Area is also taken into account. The preservative policy can involve the realisation of the current development plans being brought to a standstill if rezoning is required to limit the risks of flooding (i.e. a safeguarded area). In other words: a

¹⁶ In this context reference can be made to the regional spatial Ordinance of 1 October 2004 on rainwater wells, infiltration facilities, buffer facilities and separated discharges of waste water and rainwater (*Regionale stedenbouwkundige verordening voor hemelwaterputten, infiltratie- en buffervoorzieningen en de gescheiden lozing hemelwater en afvalwater*), *Belgian Official Journal*, 8 November 2004. On 5 July 2013 the Flemish Government approved a new regulation that adds significantly to the stringency of the original regulation, see <<http://www.ruimtelijkeordening.be/NL/Beleid/Vergunning/Vergunningnodig/Hemelwater>> (last visited 17 February 2014). The new regulation puts more emphasis on the infiltration of rainwater. A permit or notification for the construction, reconstruction or expansion of a (roofed) construction or expansion of a parking ground may, subject to certain exceptions, be granted only if an infiltration facility is provided. This source approach reflects an important step in avoiding burdening the public system with rainwater and protecting the water storage capacity of the soil. The Ordinance has been in force since 1 January 2014.

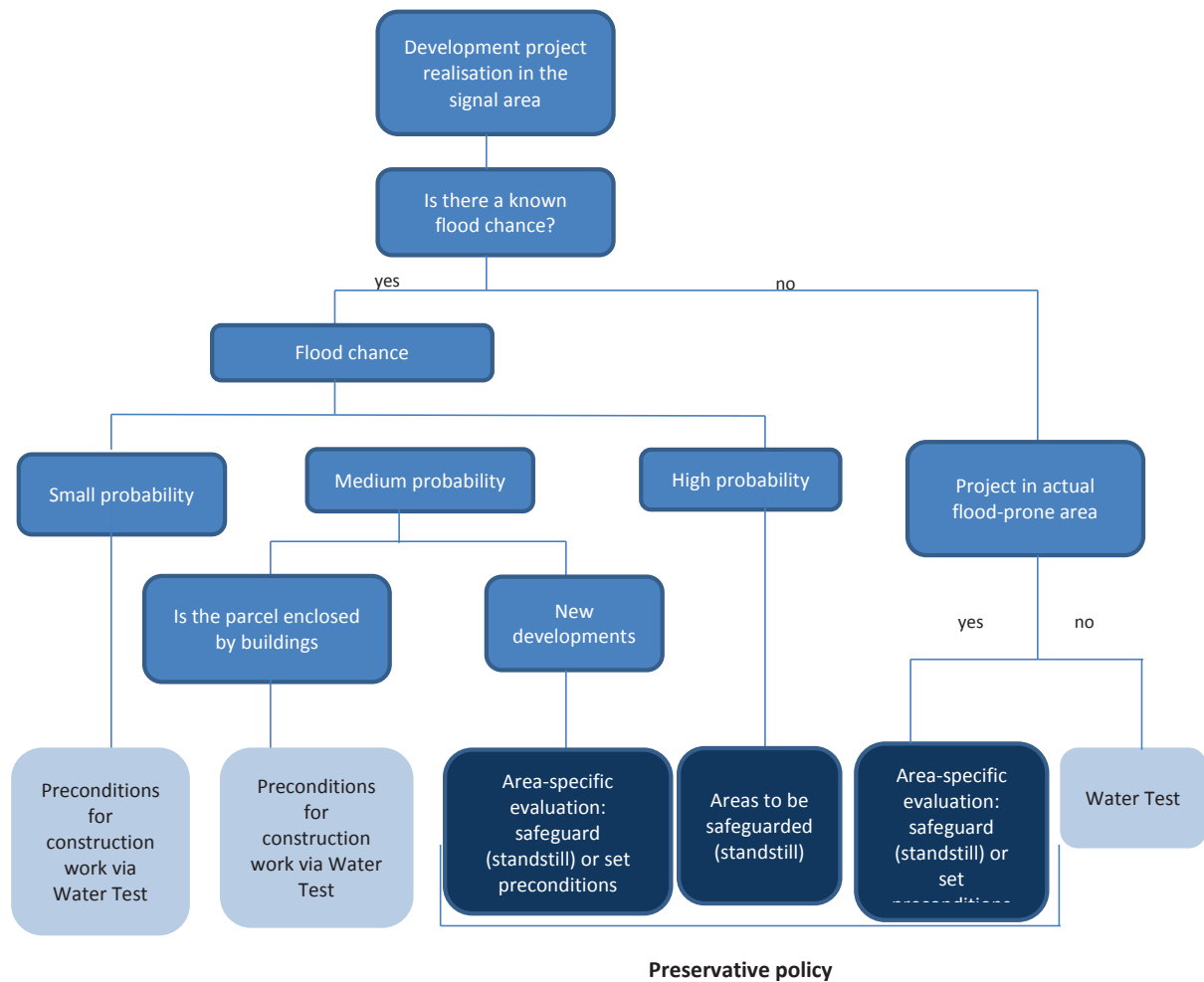
building freeze applies. In cases where the risk of flooding does not call for such a building freeze, the laying down of conditions for adaptive construction or other preconditions governing the use of the area will suffice.

The preservative policy is given shape by the Water Test and where the Water Test is not in the picture because there is no authorization request at hand, usage restrictions can also be imposed to protect the water system. To this end circular LNE/2013/1 contains guidelines for planning authorities and for licensing authorities as well as public advisers in the context of the Water Test. The objective of the circular is more specifically to encourage these authorities and advisers to pay particular attention to the execution of the Water Test and the formulation of the water paragraph or the water advice. These guidelines will be addressed in more detail later in this paper.

3.3. Decision tree for flood safety decision-making

The earlier cited circular LNE/2013/1 translates the principles outlined above into a general assessment framework for water storage preservation.

Figure 1 Decision tree for a general assessment framework for water storage preservation



3.4. Water storage policy outside the Signal Areas

For the sake of completeness, it has to be noted that also outside the Signal Areas account should be taken of the preservation of ‘space for water’ and the accompanying measures to limit the negative impact of floods when issuing building authorizations and drawing up spatial development plans. This is pursuant to the objectives of integrated water policy contained in Article 5 FDIWP. Moreover, the above-mentioned

circular LNE/2013/1 stipulates that also in flood-prone areas with a 'soft' zoning code (valley areas, areas for nature or agriculture) a preservative policy should be implemented. It should be avoided that these areas will be rezoned into a 'hard' zoning code, because in that case new Signal Areas will be created.

The way in which objectives and principles of integrated water policy are applied in the spatial planning process is in practice based on the Water Test (see *infra*), of which more will be said later, which indeed implies an assessment of the plan or project based on the relevant objectives and principles of integrated water policy. According to the parliamentary preparations the objectives of integrated water policy, contained in Article 5 FDWIP, indeed apply to the territory as a whole regardless of the current spatial development plans and zoning regulations that are part of it,¹⁷ and consequently have a horizontal scope of application. In this way, the arousal of new Signal Areas can be prevented. However, these objectives do not absolutely define decisions. Consequently the Government reserves a broad discretion in decision-making. In this context, the Belgian Council of State has recently judged that the objectives specified in Article 5(6°) FDIWP, that more specifically determines that the management of rain and surface water should be organized in such a way that the flood risk and the impact of flooding are kept to a minimum, do not mean that the space for water or flood-prone areas cannot be reduced and that activities or construction work that take up water space are prohibited. These are no more than objectives that should be aimed for, according to the Council.¹⁸ The judgement by the Council of State or, pursuant to Article 159 of the Constitution,¹⁹ by the ordinary courts, shall therefore be marginal: only if the Government decision is an apparent violation of the objectives or principles of integral water policy, can the decision be declared unlawful.

4. Instruments for a conserving and realisation-oriented water storage policy

Several instruments are available for the realisation of the 'next step trajectory' and the preservative policy to safeguard the policy decisions relating to this trajectory. The innovative element of the new water storage policy is indeed this combination (a mix) of instruments making it possible to account for the conceptual limitations of some existing instruments, such as the Water Test or the spatial development planning. Some of these instruments are enshrined in the legislation on integrated water policy, others are contained in the law on spatial planning, while still other instruments are introduced via parallel legislation such as rural land use planning. Within the scope of this paper, the focus will be on the most relevant and innovative instruments that shape the new water storage policy. In the first place the instruments that are to shape the preservative policy will be examined. The focus will then be put on the instruments or the combination of instruments with which the development perspective (i.e. the objective of the 'next step trajectory') can be realised. Therefore, the latter instruments support the proactive policy in Signal Areas.

4.1. Instruments in support of a preservative policy in Signal Areas

4.1.1. The Water Test

To safeguard the water storage capacity in the Signal Areas, practical use can be made of the existing instruments. The above-mentioned policy document on safeguarding water storage capacity refers first to the Water Test, which is referred to as the most important instrument. With a view to realising the water storage policy described above, guidelines were also drawn up for the application of the Water Test. The application of the guidelines gives rise to a more stringent Water Test.

17 Explanatory Memorandum, *Parl. St.*, VI. Parl. 2002-03, no. 1730/1, p. 17.

18 Council of State, Judgement no. 207.291, 10 September 2010 (the judgements of the Council can be consulted via <<http://www.raadvst-consetat.be>>).

19 Art. 159 of the Belgian Constitution stipulates: 'Courts only apply general, provincial or local decisions and regulations provided that they are in accordance with the law.' (exception of illegality).

4.1.1.1. Regular Water Test

The instrument granting the widest guarantees for an integration of water-related aspects in the planning and licensing policy of other policies, such as spatial planning, and also provides a stepping-stone for the integration of climate change adaptation concerns, is the so-called Water Test (also called the Water Check or Water Assessment)²⁰ which is anchored in Article 8 FDIWP. The overall objective is to force water issues to be taken into account when dealing with spatial planning. In essence, the Water Test is an instrument on the basis of which permitting or planning authorities can assess the impact of a project or plan on the water system. The ultimate purpose is to avoid harmful effects on the water system, if necessary by imposing permit conditions, or by refusing the permit or the plan.

This Water Test is not only applicable to a large number of permits (e.g. building permits, environmental permits, water captation permits or nature permits), but also to a large number of plans and programmes (e.g. spatial planning, nature conservation planning, sewage investment programmes that can have harmful effects on water systems). The Water Test is a horizontal measure that can be applied everywhere irrespective of the location or the zoning of the concerned project or plan area. In other words, the Water Test is not subordinate to spatial planning or tied by spatial zones.

The Water Test is a strong instrument: sometimes perceived as a 'crowbar' on the basis of which water issues are imposed on other policy fields.²¹ Permits and plans can be thrown out on the basis of a negative Water Test. In this context the question has arisen whether the Water Test locks up Flanders. Indeed, a real fear exists among administrators and economic players that public and private infrastructure works and development projects will be obstructed. This apprehension is unfounded, as the Water Test has a step-by-step approach (i.e. a 'three-stage rocket').²² The refusal of a permit (third stage) is only possible when no alternatives can be thought of to prevent, reduce (first stage), repair or compensate (second stage) the harmful effect. After all, the Water Test will only lead in a limited amount of cases to a building or exploitation prohibition.²³ Indeed, the authority must ensure that the harmful effects are avoided or reduced as much as possible and when this is not possible, the effects are repaired or compensated; only when it is not feasible to avoid, reduce, repair or compensate such harmful effects must the authority refuse the permit or withhold its approval for the plan or programme. A harmful effect is defined²⁴ as any significant adverse effect on the environment resulting from a change in the conditions of water systems or parts thereof, caused by human activity: such effects include effects on human health and the safety of houses and business premises outside flood areas, that are permitted or regarded to be permitted, effects on the sustainable use of water for human consumption, on flora, fauna, soil, air, water, climate, landscape and the immovable heritage, as well as the interaction amongst one or more, and is based on the definition in the 1992 Helsinki Convention on the protection and use of transboundary watercourses and international lakes.²⁵

The scope and field of application of the Water Check is actually broad.²⁶ Also water quantity and climate change concerns are included. Consequently, aspects other than strictly spatially relevant aspects are to be considered in the decision-making process of spatial planning. Thus, the Water Test offers a useful leg-up to a stronger integration of climate change adaptation challenges.²⁷ However, it must be noted that a strict causality rule applies. According to the jurisprudence of the Belgian Council of State,

20 See F. Maes, 'Integrated water policy in Flanders. The implementation of the EC Framework Directive Water', in J.F. Neuray (ed.), *Directive 2000/60/EC of 23 October 2000 establishing a framework for community action in the field of water policy*, 2005, pp. 37-38; See more extensively on the Water Test: P. De Smedt, *De watertoets getoetst. Juridische leidraad bij de toepassing van de watertoets*, 2008, pp. 3-157.; P. De Smedt, 'De watertoets anno 2012: over oude gedachten en nieuwe vormen', in L. Lavrysen (ed.), *Natuur, water en ondernemen. Kweeling of uitdaging?*, 2012, pp. 1-63.

21 See P. De Smedt, 'De Watertoets: breekijzer van de watersector', in F.C.M.A. Michiels & L. Lavrysen (eds.), *Milieurecht in de lage landen*, 2004, p. 17.

22 See in this sense also Constitutional Court, Judgment no. 32/2005, 9 February 2005 (<<http://www.const-court.be/>>).

23 This conclusion was confirmed in the Evaluation Report on the Water Test by the Flemish Integral Water Policy Committee (for references, see note 5, supra).

24 See Art. 3(3)(17°) FDIWP.

25 F. Maes, 'Integrated water policy in Flanders. The implementation of the EC Framework Directive Water', in J.F. Neuray (ed.), *Directive 2000/60/EC of 23 October 2000 establishing a framework for community action in the field of water policy*, 2005, p. 36.

26 See Council of State, Judgment no. 197.469, 29 October 2009 (<<http://www.raadvst-consetat.be/>>).

27 See also in this sense P. Jong & P.J.J. van Buuren, 'Een kleine (r)evolutie in het waterrecht: watertoets, versterkte watertoets, klimaattoets', 2008 *Tijdschrift voor bouwrecht*, pp. 901-908.

the Water Test is only suitable to prevent new harmful effects caused by a spatial plan or building project, not for the remediation of existing problems.^{28, 29}

The authority taking the spatial decisions must also justify the decision in light of the Water Check and must contain a formally expressed justification, also called the water paragraph (*waterparagraaf*). The justification must be done in light of the objectives and principles of integrated water policy and takes into account the provisions of the water management plans (Article 8(2) FDIWP). By using the Water Check, each permit or plan or programme must be viewed in light of the objectives and principles of integrated water management (e.g. the precautionary principle, the principle of solidarity), and the relevant water management plans. As the next generation water management plans will integrate adaptation strategies as well, this in accordance with guidance document No. 24 'River Basin Management in a Changing Climate',³⁰ the Water Test will also translate water management plan provisions concerning climate change themes into spatial planning decisions and building permits. However, until recently a decision framework with guidelines for adapting to climate change impacts was lacking. As a result, the incorporation of climate change adaptation considerations and measures in spatial planning or building authorizing by using the Water Test was dependent on (incoherent) ad hoc decisions.³¹ Partially for this reason the new water storage management framework, anchored in the recent circular LNE/2013/1, was created. For activities that require an Environment Impact Assessment (EIA) or Strategic Environment Assessment (SEA), the Water Check must be part of the Environment Impact Statement (EIS). To assist the authorities with this Water Check, a Water Advice (*wateradvies*) could, and in many cases (e.g. in cases where projects are located in flood-prone areas) should, be requested from the competent authorities. This Water Advice cannot be easily derogated from. On the contrary, in accordance with Article 4(3)(3) *Vlaamse Codex Ruimtelijke Ordening* (Flemish Codex Spatial Planning, FCSP), the building authorization has to be denied or subjected to additional requirements when an advice indicates a conflict between the application and norms from other fields of policy that have direct effect. De facto this boils down to a binding advice.

4.1.1.2. A more stringent (sharpened) Water Test

Basic assumptions, scope and legal validity

The policy document on safeguarding water storage capacity suggested that with a view to conducting a preservative policy in the Signal Areas, a more stringent Water Test is needed. To this end a circular was drawn up for the authorities containing guidelines intended for the planning and licensing authorities as well as public advisers such as water managers.³² The circular distinguishes between two situations: Signal Areas for which the Government has already adopted a 'next step trajectory', and areas where this has not yet been done.

In the Signal Areas with a 'next step trajectory' the sharpened Water Test will apply. Through this sharpened Water Test the Flemish Government aims to prevent the foreclosure of the 'next step trajectory'. In this context the intended spatial development that is the object of the plan or project should be assessed based on the spatial development perspective that was established in the 'next step trajectory'. The guidelines in the circular are intended to realise a so-called standstill (building freeze) in the areas where, in conformity with the 'next step trajectory', a rezoning is necessary. Where such rezoning is not required, the application of the (regular) Water Test is intended to ensure, in conformity with the

28 See among others, Council of State, Judgment no. 173.482, 12 July 2007; Judgment no 166.439, 9 January 2007; Judgment no. 197.469, 29 October 2009; Judgment no. 207.830, 1 October 2010; Judgment no. 214.033, 22 June 2011; Judgment no. 215.969, 24 October 2011 (<<http://www.raadvst-consetat.be>>).

29 In this context it should be noted that the above-mentioned spatial Ordinance of 1 October 2004, as recently amended, partly provides an answer to this concern, as existing paving constructions are taken into account.

30 See <https://circabc.europa.eu/sd/a/a88369ef-df4d-43b1-8c8c-306ac7c2d6e1/Guidance%20document%20n%2024%20-%20River%20Basin%20Management%20in%20a%20Changing%20Climate_FINAL.pdf> (last visited 14 March 2014).

31 Indeed some water management authorities took climate change models into account in their water advice, but this practice was certainly not widespread. Moreover, the obligation to ask for water advice in cases where projects are located in flood-prone areas has only applied since 1 March 2012.

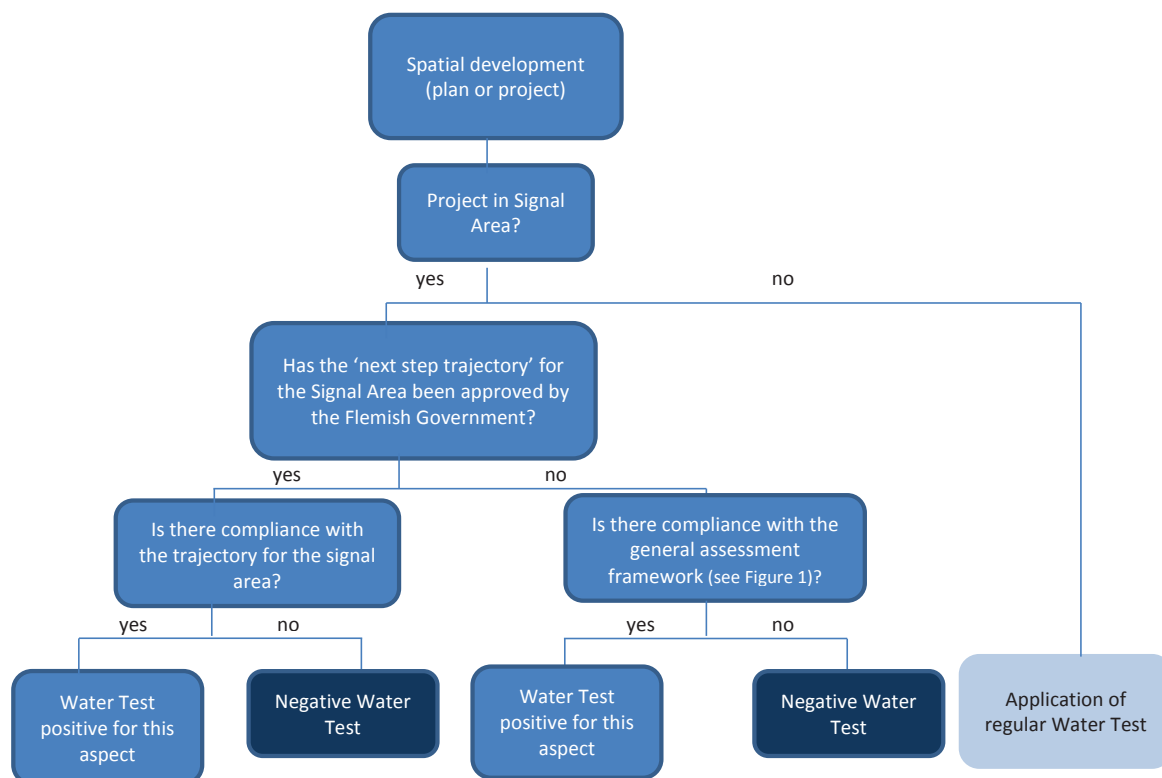
32 Circular LNE/2013/1 concerning guidelines for the application of the Water Test to protect the water storage capacity in Signal Areas, <http://www.integraalwaterbeleid.be/nl/beleidsinstrumenten/signaalgebieden/20130628_omzendbrief_signaalgebieden_LB.pdf/view> (last visited 17 February 2014).

guidelines in the circular, the imposition of permit conditions or planning regulations relating to climate adaptive construction.

For projects or plans within Signal Areas for which the Flemish Government has not yet approved the ‘next step trajectory’, within the scope of the regular Water Check it is checked whether the project or plan complies with the general assessment framework contained in the policy document on safeguarding water storage capacity (see Figure 1). When a rezoning might be required because of a high flooding chance, the permit or plan should be refused. In other cases conditions or regulations to adaptive building are sufficient.

These guidelines are schematized in the circular as follows.

Figure 2 Decision tree for the sharpened Water Test



Although it is not explicitly stated, the circular is based on Article 8(5) FDIWP that provides that the Flemish Government can establish general guidelines or further rules on the basis of which it can be determined whether acts or activities cause a harmful effect, or suitable conditions can be laid down to prevent, limit or compensate the harmful effect. The guidelines in circular LNE/2013/1 can be deemed to be ‘general guidelines’ as referred to in Article 8 FDIWP. This is not without importance for the taxation of the legal validity of the guidelines. As indicated in the parliamentary preparations,³³ the guidelines are construed as recommendations for the authorities without having a normative character. The guidelines in the circular therefore contain no legally binding rules that supplement or amend the existing regulations. This is consistent with the case law of the Council of State in similar cases.³⁴ In other words, the legal validity of the guidelines is weak, so the question can be asked whether they will have the desired effect in practice.

33 Explanatory Memorandum, *Parl. St.*, VI. Parl. (2002-2003), no. 1730/1, pp. 25-26.

34 Council of State, Judgment no. 216.494, 25 November 2011; Judgement no. 114.312, 9 January 2003 (<<http://www.raadvst-consetat.be>>).

4.1.1.3. The Water Test: not a jack of all trades

The Water Test has several conceptual limitations.³⁵ These limitations raise the demand for accompanying instruments.

Although the Water Test is a key instrument for protecting the water system and limiting damage due to flooding, it is a passive instrument: the Water Test only has to be conducted when a plan is initiated or authorization is requested. If there is no initiative, nothing happens. Because the Water Test depends on a concrete project or proposed plan, this instrument alone cannot be used to develop a strategic water policy. Consequently, if sufficient space for water is to be created within a reasonable time span, additional instruments are needed with which (more) space for water can be proactively and strategically sought.

The Water Test also has a limited field of application. Only some authorizations, plans and programmes are subject to the Water Test. However, this limited field of application does not seem to be a big problem as the main permits, plans and programmes with potential harmful effects on the water system are included in the field of application. Above all, the tendency to exempt an increasing number of acts from the authorization requirement or to simply make them subject to a notification requirement seems to be problematic. As a result these acts bypass the Water Test. Many of these acts are not relevant from the perspective of water management. Nonetheless, it emerges that some are indeed relevant and that, more specifically, they can be problematic in relation to safeguarding space for water and safeguarding against flooding. Examples are paving constructions or temporary relief changes.

4.1.2. Easements in the public interest to protect the water system in the public interest

In cases where the use of real estate cannot be arranged through the Water Test, it is important that this can be done using another legal instrument in order to preserve the water storage capacity in flood-prone areas. For this, there is currently no legal basis.

To remedy this, it has been made possible to establish an easement in the public interest (also called: public utility easement or public servitude) through a recent draft decree on rural land use planning (Article 2.1.3 Draft Decree on Rural Land Use Planning³⁶). The draft decree, which was first approved in principle by the Flemish Government on 24 May 2013, aims to facilitate a widely deployable set of instruments in order to provide customised solutions for projects that contribute to the consolidation and the management of space. The decree has a wide scope of application and can therefore be used in diverse policy areas, such as nature conservation, spatial planning and water policy. The decree also facilitates several crucial instruments for projects in Signal Areas including an easement in the public interest. With this the legislator addresses the recommendations made in the Flemish Parliament's Resolution on flood damage.³⁷

Such an easement in the public interest can be seen as a restriction on use that imposes, for the purpose of the public interest (i.e. water management interests), restrictions on the right of property.^{38, 39} The easement can embody a whole variety of measures and can be imposed in respect of a specific parcel of land or a group of land parcels, which enables tailor-made solutions. The measures can range from a ban on relief changes right up to a ban on construction work. These are classic prohibition clauses (passive easements). The policy document on safeguarding water storage capacity also refers to obligation clauses

35 See P. De Smedt, 'De watertoets anno 2012: over oude gedachten en nieuwe vormen', in L. Lavrysen (ed.), *Natuur, water en ondernemen. Kweeling of uitdaging?*, 2012, pp. 60-62.

36 *Ontwerp van decreet betreffende de landinrichting.*

37 Previously, the Mina Council (the Environment and Nature Council of Flanders) came to a same recommendation in its advisory opinion of 5 July 2011 on the Water Test, <<http://www.minaraad.be/adviezen/2011/watertoets-eigen-initiatief-met-serv>> (last visited 17 February 2014).

38 The proposed legal technique is not new to the Flemish legal system. For example, the Flemish Soil Decree (*Bodemdecreet*) provides that the Government may impose restrictions on use if the soil contamination prevents or limits the use of the land (Art. 72 Flemish Soil Decree). The restrictions on use can be imposed in anticipation of the soil remediation, but also if the contamination remaining after the soil remediation requires this.

39 In this context, mention may be made of the civil servitude of Art. 640 of the Belgian Civil Code (*Burgerlijk Wetboek*). This provision states: 'Lower tenements are subjected to those which are higher, to receive waters which flow naturally from them without the hand of man having contributed thereto. A lower owner may not raise dams which prevent that flow. An upper owner may not do anything that worsens the servitude of the lower tenement.' This legal obligation applies anyway, so it should not be the subject of a public easement.

that require a specific action from the owner or user of a flood-prone parcel of land (active easements). Such obligation clauses that could be usefully imposed via this easement instrument in the public interest are e.g. the obligation to periodically clean up private canals or mow riparian zones.

By imposing such a public utility easement from a legal point of view a situation is created similar to the situation the owner would find himself in if the construction or development prospects were cancelled by a change in the applicable zoning regulations contained within the spatial development plans. The imposition of an easement is of course much quicker: no plan revision is needed. In this way, a relatively sizeable water storage capacity can be gained rather quickly. The great advantage of this easement is that it can apply as a preservative measure that is separate from the spatial planning or authorization, in anticipation of an adjustment or revision to the current spatial development plans. What is more, this public utility easement is by its nature a temporary measure as the Belgian Constitutional Court has judged that the spatial development plan must be reviewed when it is no longer possible to realise the zoning code which is part of it, due to the (environment) protection rules.⁴⁰

4.1.3. Damage compensation?

In this context, I will make a small diversion to discuss the issue of damage compensation. After all, the application of the Water Test or the imposition of an easement in the public interest can place great restrictions on the use of land. This will obviously affect the value of the land and may give rise to a loss of income. This produces objections not only from a legal perspective. The social support basis for the water and adaptation policy may also be affected, which in turn might make administrators hesitant in taking far-reaching but necessary measures. This gives rise to the question of compensating the disadvantage or damage incurred.

4.1.3.1. Equality before public burdens

The property devaluation or loss of income that is incurred resulting from a negative Water Test (i.e. a Water Test resulting in permit conditions or to a refusal of authorization) is not compensated in the current legislation. This in itself is not unlawful. In accordance with the case law of the Constitutional Court,⁴¹ the Court of Cassation⁴² and the Council of State⁴³ the Government is authorized to impose restrictions on exercising property rights in order to realise the objectives of public interest such as good water management. Neither Article 1, First Protocol ECHR, nor Article 16 of the Belgian Constitution, which provide constitutional protection to the property rights, require the payment of compensation for legal measures imposing restrictions on use. This is also in accordance with Article 544 of the Belgian Civil Code, which allows the Government to impose measures that restrict the use of the property in the public interest. Arguments can also be made against the granting of damage compensation in the event of a negative Water Test on the grounds of environmental law.⁴⁴ In accordance with the polluter-pays principle, which is enshrined in Article 6(5°) FDIWP, the cost of measures to prevent, reduce and control the harmful effects, including flood risks, and repairing the damage, are after all borne by the party causing the damage. In the light of this principle, it is logical that the person who builds in a flood-prone area must bear the cost of mitigating measures required or compensation measures necessary to prevent the loss of space for water storage or infiltration.

The above principles are however mitigated by the principle of equality before public burdens. This principle means that the Government cannot impose on a citizen or group of citizens burdens that exceed the burdens that are considered in society as a normal risk without paying compensation. When a construction or operation ban or a major restriction on use is imposed on a specific citizen or a specific group of citizens, which is not limited by time, it is not evident to decide that this principle is not violated.

40 Constitutional Court, Judgement no. 32/2005, 9 February 2005 (the Court referred in this context to the provisions of Art. 36(3) and Art. 42(4) FDIWP, the so-called harmonization clause); see also in this sense Constitutional Court, Judgement no. 31/2004, 3 March 2004 (<<http://www.const-court.be/>>).

41 E.g. Constitutional Court, Judgement no. 32/2005, 9 February 2005 (<<http://www.const-court.be/>>).

42 E.g. Court of Cassation, 16 March 1990, *Arresten van het Hof van Cassatie* 1989-90, p. 922.

43 E.g. Council of State, Judgement no. 21.269, 16 June 1981 (<<http://www.raadvst-consetat.be/>>).

44 P. De Smedt, 'Watertoets getoetst. Een revolutionair instrument van het decreet van 18 juli 2003 betreffende het integraal waterbeleid', 2004 *Nieuw juridisch weekblad*, pp. 909-911.

Especially not if these measures are imposed to limit the risk of flooding in the wider surroundings of the parcel of land concerned. In these cases the restrictions may be considered to exceed the usual social risk or the usual operating risk. The availability of some kind of compensation scheme would then seem to be required to avoid a violation of Article 1, First Protocol ECHR.⁴⁵

This need seems especially pressing now that the Belgian Constitutional Court has confirmed the applicability of the principle of equality before public burdens on the imposition of an easement in the public interest in its Judgment no. 55/2012 of 19 April 2012. Numerous measures imposed in the application of spatial planning law and environmental law can be considered to be easements in the public interest, even the measures imposed within the scope of the Water Test. Because the application of the sharpened Water Test probably leads more often to more stringent building and exploitation conditions or a refusal of the authorization, this thorny issue will be raised even more often. However, the reference to the normal social or normal operating risk might offer a significant margin to impose ownership restrictions in the public interest without paying compensation. Van Hoorick assumes that the location of the property is very relevant for assessing this risk, such as whether the land is located in a flood-prone area,⁴⁶ because in such areas the owner can reasonably expect such restrictions to be imposed. In connection with this, Van Hoorick refers to the principle of the *Situationsgebundenheit* of property, as enshrined in the German legal system, which justifies the burdens being unequally divided between different owners, yet even in the Flemish Region there are some useful precedents. For example, the right to compensation for detrimental amendments to designated land use (*planschadevergoeding*) can only be derived from the loss of building opportunities or allotment (plot division) opportunities as a result of rezoning resulting from a spatial development plan revision if the parcel of land is eligible for development or building (Article 2.6.1(3)(2°) FCSP): waterlogged or marshy land not suitable for construction without major foundation or drainage work can therefore be excluded from the compensation for detrimental amendments to designated land use.⁴⁷

4.1.3.2. Government liability

In cases where the principle of equality relating to public burdens cannot be applied as the basis of liability, the damaged party should invoke common law tort due to Government liability.⁴⁸ It is remarkable that nonetheless few cases of Government liability in this context are known. This could possibly indicate that the Water Test is applied in a proportionate manner and rarely gives rise to a refusal of authorization or disproportionate usage restrictions. Contrary to what applies in a system of compensation for legitimate Government action, in liability law a fault on the part of the Government has to be proven. This is no easy task, in view of the large discretionary power of the authorities in applying the Water Test. The Belgian Court of Cassation has recently ruled that the decision of the appeal judges, who judged that the refusal of the authorization on grounds that the risk of flooding could not be reduced sufficiently even after the imposition of conditions, because the area is subject to a real risk of flooding, while the application for the allotment does not provide sufficient guarantees regarding the external water security of the area and the application does not demonstrate that sufficient buffer capacity has been provided to prevent the plots within the allotment being flooded, is not a violation of the discretionary judgment margin and thus the decisions resulting from the Water Test to refuse authorization were taken in accordance with Article 8(1), paragraph one of the Decree of 18 July 2003 on integral water policy, and were justified by law.⁴⁹

45 See also H.F.M.W. van Rijswijk, 'De watertoets in Vlaanderen en Nederland: een geschikt instrument voor externe integratie?', in F.C.M.A. Michiels & L. Lavrysen (eds.), *Milieuwet in de lage landen*, 2004, p. 211; P.P.J. Driessen et al., *Beleids- en rechtswetenschappelijke aspecten van klimaatadaptatie*, 2011, p. 12, <<http://repository.ubn.ru.nl/bitstream/2066/95151/1/95151.pdf>> (last visited 17 February 2014).

46 G. Van Hoorick, 'Over het bouwverbod en de schadevergoedingsregeling in het kader van het Duinendecreet, en het beginsel van de gelijkheid voor de openbare lasten (noot onder GwH 19 April 2012)', 2012 *Milieu en Recht*, p. 253.

47 B. Bouckaert & T. De Waele, *Ruimtelijke Ordening en Stedenbouw in het Vlaamse Gewest*, 2000, p. 184; P. De Smedt, 'Watertoets getoetst. Een revolutionair instrument van het decreet van 18 juli 2003 betreffende het integraal waterbeleid', 2004 *Nieuw juridisch weekblad*, pp. 909-911.

48 P. De Smedt, 'Watertoets getoetst. Een revolutionair instrument van het decreet van 18 juli 2003 betreffende het integraal waterbeleid', 2004 *Nieuw juridisch weekblad*, pp. 911-912.

49 Court of Cassation, Judgment no. C.12.0333.N, 8 March 2013, 2013 *Tijdschrift voor milieurecht*, pp. 251-252.

4.1.3.3. Specific compensation schemes for Government no-fault liability

The draft proposal of the Decree on Rural Land Use Planning provides explicitly for a specific compensation scheme for users or owners who see the value of their ownership or use drop as a result of the restriction on use imposed on them (Article 2.1.4 Draft Decree on Rural Land Use Planning). The Flemish Government has to take an executive decision to elaborate this compensation scheme. In further developing this compensation scheme, it would seem justified from a legal and political perspective for the compensation scheme to take account of the physical features of the parcel of land in question and more specifically the flood risk and the existing legal obligations, e.g. the civil servitude under Article 640 Belgian Civil Code.

4.2. Instruments in support of a proactive water storage policy in Signal Areas

To realise the intended 'next step trajectory' in Signal Areas (i.e. the targeted spatial development perspective) a revision of the spatial development plans will often be required. This is the case if the objective is to declare flood-prone areas in residential areas unbuildable. In other cases the spatial development plans will have to be reviewed in order to make specific water management works licensable.⁵⁰

The problem is that a plan revision, especially relating to the rezoning of land, can give rise to restraint because compensation for detrimental amendments to designated land use has to be paid or because the 'spatial balance' or 'spatial accounting' is compromised.⁵¹ Another problem, which is mainly of a practical nature, is that large-scale time effects occur between the adoption of the plan and the realisation of the plan in the field. To accommodate these concerns, a new set of instruments was designed: statutorily required land reparcelling linked to a zoning swap.

4.2.1. Spatial development plans

4.2.1.1. Rezoning to protect the water system and town-planning regulations

There are three planning levels in Flanders: the region, the provinces and the municipalities (Article 1.1.3(2) FCSP). Each administration is required to draw up spatial development plans. The spatial development plans must comply with the provisions of the spatial structure plan, and must not conflict therewith. The division of tasks between the planning levels is governed by the subsidiarity principle: each level of government can decide on the spatial elements that are important for that level.

Spatial structure plans are policy plans that outline the preferred spatial development of a particular area. A spatial structure plan is in principle binding on the government that adopts it and for the lower levels of government. These plans do not form a framework for licensing.⁵² Many spatial structure plans also address water-related spatial policy decisions that are also important for water storage policy. For example, the *Ruimtelijk Structuurplan Vlaanderen* (Spatial Structure Plan Flanders, SSPF)⁵³ – the forerunner of the *Beleidsplan Ruimte* (Spatial Policy Plan) that is currently being drawn up – determines that the spatial planning should support integrated water management, by, for example, ensuring that the amount of paved surface in specific infiltration areas is restricted, if necessary by setting building regulations, and ensuring that valleys are protected from development so that natural flood possibilities remain open and potential conflicts between construction and water are avoided. The municipal and provincial structural plans also make such decisions, which are often much more concrete because they determine specific spatial development perspectives for flood-prone areas.

50 In the past, many problems occurred with water management works, such as the construction of buffer basins or controlled flooding areas, because they could not be authorized due to zoning problems. In order to overcome these problems, a flexible regulation on works in the public interest was adopted. This new regulation allows works in the public interest out of the appropriate spatial zones (Art. 4.4.7(2) FCSP). The condition is that these works have a small spatial impact. Which works these involve are determined by the Flemish Government (Decision of the Flemish Government of 5 May 2000, as amended by the decree of 20 July 2012, *Belgian Official Journal*, 13 August 2012). The list of works in the public interest that are considered to have a small spatial impact is open to such a broad interpretation that its legality can be open to doubt.

51 'Spatial accounting' is an instrument to monitor spatial development processes. In spatial structure plans quantitative objectives for different land uses and spatial functions (residence, nature, industry, ...) are established. Spatial accounting ensures that these quantitative objectives are respected, or, in other words, that not too much or too little building land is provided, etc.

52 Therefore, the Water Test is not applicable to these plans.

53 <<http://rsv.vlaanderen.be/>> (last visited 17 February 2014).

It seems logical that the spatial development perspective of the ‘next step trajectory’ is coordinated with the relevant provisions of the spatial structure plans, so that no conflict arises between the desired policy development perspective of ‘next step trajectory’ and the spatial development perspective of the spatial structure plans. Indeed, such a conflict prevents the implementation of the spatial development perspective of the ‘next step trajectory’ in the spatial implementation plans, which may after all not conflict with spatial structure plans.

The spatial development plans concretise the spatial policy set out in the spatial structural plans by indicating the spatial zones for the area concerned and laying down town-planning regulations. These plans have statutory force, they bind both citizens and Government and therefore they also form the framework for issuing authorizations.

The town-planning or urban development regulations contained in spatial development plans can determine zoning, construction and management regulations (Article 2.2.2(1) FCSP). The list of topics that could be the object of these regulations also includes safeguarding adequate water management and securing areas against flooding (Article 2.2.2(1) in conjunction with Article 2.3.1(2) FCSP). These regulations can also be used to impose conditions relating to climate-adjusted construction.

These regulations can be applied to realise the ‘next step trajectory’ in Signal Areas: for instance, a full or limited construction ban can be imposed, but also less far-reaching restrictions are conceivable. For example, conditions may be imposed on relief changes and rules laid down requiring that certain strips of land in agricultural areas be set aside to act as a buffer or to help combat erosion. However, regulating free cultivation or crop choice is a bridge too far.⁵⁴

4.2.1.2. Legal effect of the ‘next step trajectory’ in spatial planning

If the ‘next step trajectory’ is enshrined in the spatial plan, the impact in spatial planning is strong: indeed, the town-planning regulations set out the framework for issuing authorizations.⁵⁵ The question is however whether the ‘next step trajectory’ will be enshrined at all in the spatial development plans. As previously noted, the decision by the Flemish Government on the ‘next step trajectory’ to be taken in the Signal Areas is not binding on the government that approves or establishes the spatial development plan. It still remains possible that the spatial development perspective preferred from the viewpoint of water policy will not or will not be fully implemented in the spatial development plans, if it emerges during the planning process that the adjustment of the spatial development plan in terms of the realisation of the spatial development perspective of the ‘next step trajectory’ is not or is only partly feasible or has no public support. The spatial claims of the water policy can indeed conflict with spatial questions from certain other sectors or meet with substantial objections from the owners involved.

If the ‘solution’ devised in the ‘next step trajectory’ does not materialize, then the zoning regulations for these areas will remain in place or the use of the land within these areas will not be governed by specific town-planning regulations intended to protect the water system. Of course, these areas will continue to be subject to the regular Water Test. And even then, the presence of a flood risk and the space for water have to be taken into account (see above), subject to the understanding that construction in these areas is not a priori excluded or subjected to strict restrictions.

4.2.1.3. Damage compensation?

Here again, I will make a small diversion to discuss the issue of damage compensation, for reasons explained above. For the restrictions that spatial development planning imposes on land use, different compensation schemes are in force: compensation for detrimental amendments to designated land use (*planschadevergoeding*),⁵⁶ the capital loss compensation (*kapitaalschadecompensatie*) and the user’s

54 Although it may be important in the context of water management, cultivation or crop choice on a given plot is not spatially relevant, and only that which is spatially relevant can be regulated in a spatial development plan (F. De Preter, ‘Algemene problemen bij de doorwerking van sectorwetgeving in de ruimtelijke ordening’, in I. Larmuseau (ed.), *Doorwerking van milieu in de ruimtelijke ordening: 1+1=3*, Verslagboek, 2008, pp.14-17).

55 See, for example, Art. 4.3.1(1)(1^a) FCSP that states that authorization shall be refused if the subject of the application is in conflict with the town-planning regulations.

56 It should be noted that, as a mirror image of this plan damage, the Spatial Planning Code provides for a gains tax. The gains tax is a tax on the added value that a parcel of land receives due to a plan change. This is the case when, as a result of plan changes, unbuildable

compensation (*gebruikerscompensatie*). Unlike the compensation for detrimental amendments to designated land use, which has a general scope of application, the capital loss compensation and the user's compensation are intended to protect agricultural interests.⁵⁷ All the compensation schemes have in common that the damage is not reimbursed in full, but that a part must be borne by the owner or user. This expresses the fact that damage that is part of the normal social or business risk is not eligible for compensation. Moreover, the awarding of this compensation is subject to strict time limits. There is also a cumulative prohibition between these and other compensation schemes.

The rezoning of a parcel of land may, subject to compliance with certain conditions, give rise to compensation for detrimental amendments to designated land use for the owner (Article 2.6.1-2.6.2, 2.3.1(2) FCSP). This damage is the damage that the owner of a buildable plot incurs if his land is rendered unbuildable or not eligible for allotment due to a planning revision. Noteworthy is that the legislator provides for a rather surprising payment modality for this compensation: the Government can comply with the obligation to pay by returning the original development plan to the parcel of land.

The second compensation scheme compensates loss of capital. Book 6 of the *Grond- en Pandendecreet* (Land and Property Decree)⁵⁸ confers in the first place the right to compensation on the owner whose land is rezoned by a spatial development plan from an agricultural zone to a green zone. After all, the traditional compensation for detrimental amendments to designated land use offers no adequate solution in the event of this amended plan. In the context of water storage policy this often involves valley areas. In addition to this amended plan compensation, compensation for other measures is also provided for. This compensation covers the damage incurred due to new protective regulations imposed at the expense of agricultural land. This concerns regulations imposed within the scope of a spatial development plan, such as the measures introducing restrictions on use in implementation of the 'next step trajectory' in the Signal Areas.

Finally, there is also a user's compensation scheme regulated by way of the user's compensation decree of 27 March 2009.⁵⁹ This decree defines the scope for the financial compensation of damage incurred by the user of land as a result of restrictions on the use of this land being imposed due to a plan change or town-planning regulations.

4.2.2. Statutorily required reparcelling linked to a zoning swap.

The use of classical spatial development planning has, as already noted, raised a number of objections that foreclose the employability of this in realizing the water storage policy. On the one hand, this regards the sluggishness of the processes and, on the other, the reluctance to give up development zones because of the requirement to pay damages and the disturbance of the spatial balance. Therefore, the Flemish Government developed new legal instruments to make an exchange of zoning types easier between areas that because of the flood risk are not or are less suitable for development and areas that are more favourably located.

A first instrument to be used is the zoning swap. This is a simultaneous rezoning of land parcels as a result of which the zoning codes are exchanged. For example, by way of a zoning swap a municipality can rezone a Signal Area located in a residential area as a zone having an open space function in a municipal spatial implementation plan and rezone a safe area located elsewhere as an industrial or residential zone. This can be realised today within the regular spatial planning process. However, no exchange of ownership title takes place. The zoning swap might indeed keep the spatial accounting in balance but the problem of time effects is not resolved. Neither is the financial compensation linked to the rezoning resolved, given that the requirement to compensate connected to the plan damage, the loss of capital or the user's compensation is not fully set off by the gains of the plan.

land is rezoned as a residential zone, industrial zone or leisure zone. But the compensation for detrimental amendments to designated land use and the tax are not each other's mirror image: it is not a well-balanced system as the amount of compensation for detrimental amendments to designated land use exceeds the tax rate.

⁵⁷ See on this H. Schoukens et al., *Handboek natuurbelofsrecht*, 2011, pp. 623-624.

⁵⁸ Decree of 27 March 2009, *Belgian Official Journal*, 15 May 2009.

⁵⁹ Decree of 27 March 2009, *Belgian Official Journal*, 6 May 2009.

To realise the plan more quickly and budget-neutrally one needs to go a step further and not only have a simultaneous exchange of zoning; this should be achieved in combination with an exchange of ownership title. Particularly when, because of the flood risk, further work is needed in the Signal Areas, such as deforestation and the construction of dikes, weirs or buffer basins, it is important to keep the time between the rezoning of the area and the realisation of the water storage project to a minimum. The current set of instruments is not equipped for this.

For this reason, a new form of realisation-oriented planning was developed that was intended to create more support and faster procedures, given that the planning and the implementation method are coordinated and integrated in a single decision-making process. This new set of instruments, which is enshrined in the draft Decree on Rural Land Use Planning (Article 2.1.21-2.1.66 Draft Decree on Rural Land Use Planning), involves statutorily required land reparcelling linked to a zoning swap. When applying this instrument, the exchange of ownership title is accompanied with zoning exchange: zones and owners or users are exchanged simultaneously for the purpose of using space more effectively.⁶⁰ This may involve the rearrangement of the land parcels in Signal Areas, where safe parcels are exchanged against unsafe parcels. The substantive purpose of the land reparcelling is determined in the project, plan or programme for which the instrument is used, such as the River Basin Management Plan or a programme of measures.

If such should be necessary for the functioning of the new parcel of land, statutorily required works can also be carried out. This involves infrastructure works aimed at realising a sound land parcel development, work related to changing land parcel boundaries, etc.

Because of the impact on the relevant owners and users and the spatial-ecological environment, the necessary procedural safeguards have been built in. For example, the need to apply the instrument ought to be substantiated within the framework of the project, plan or programme for which it is being applied. In addition, the Land Committee (*Landcommissie*)⁶¹ guarantees an objective determination of the contribution and allocation of land and the financial arrangements, and an extensive opportunity is provided for public participation and appeals by the relevant owners and users in each of the following phases.

The procedure of statutorily required reparcelling proceeds in four phases: a) the phase of the demarcation of the project zone (the 'block' or the entire real estate included in the reparcelling) and the survey for charting the owners and users (rights holders) in the project; b) the input phase, in which the value of the real estate involved in the reparcelling is determined for each right holder; c) the allocation phase, in which the value of the real estate involved after the reparcelling is determined for each right holder; d) the phase of setting out the boundaries of the new land parcel and legalising the reparcelling (by drawing up the reparcelling deed⁶²), including the settlement of the transition of the agreements to the new owner, and the settling of the necessary financial arrangements.⁶³

To realize the zoning swap in combination with the statutorily required reparcelling, the spatial development plans need to be modified. To this end, it is possible to integrate the statutorily required reparcelling process in the procedure for drawing up a spatial development plan. The draft plan defines the zone within the area covered by the spatial plan that is eligible for statutorily required reparcelling. The Land Committee then draws up a land exchange plan (*grondruilplan*) to facilitate the exchange

60 Current legislation also provides for this statutorily required reparcelling but this is restricted to reparcelling for agricultural or nature conservation purposes (Federal Law of 22 July 1970 concerning the statutorily required land consolidation (*Ruilverkavelingswet*), *Belgian Official Journal*, 4 September 1970; Art. 47(2)(1^o) Flemish Decree of 21 October 1997 concerning nature conservation and the natural environment (*Natuurbehoudsdecreet*), *Belgian Official Journal*, 10 January 1998).

61 The Land Committee has legal personality, and is composed of representatives of various policy areas (nature conservation, spatial planning, public works, agriculture, finance and budgeting) and experts with experience in the application of capital loss compensation and user's compensation.

62 The reparcelling deed affirms the title of property and other rights in rem, and the title for the financial arrangements.

63 This financial arrangement consists of a clearance of financial compensation and user's compensation. The financial compensation to be paid to or by an owner is the difference between the exchange value of all former land parcels of the owner as identified in the input and the total exchange value of the new land parcels as laid down in the allocation. The exchange value is determined on the basis of the surface area, the location, the spatial zone code, its constructions, the culture value and the presence of a tenancy or servitudes. The user's compensation payable by or to a user (e.g. a tenant) is regulated in a similar way. The use value is determined on the basis of the suitability of the land parcel for the current land use.

of owners and users.⁶⁴ This land exchange plan then follows the procedural rules for drawing up the spatial development plan, including the public consultation. Once the land exchange plan is definitely adopted the reparcelling is legally recorded in the reparcelling deed. Worth noting is that the provisions on compensation for detrimental amendments to designated land use (and tax) and on capital loss compensation or user's compensation do not apply in the case of a statutorily required reparcelling of land. In view of the fact that the owners obtain another parcel of land elsewhere that has the same prescribed use as that of their original parcel of land these compensation schemes are superfluous. Possible value differences (surface area, development potential etc.) are catered for by way of compensation in the reparcelling process.

The major advantage of implementing a zoning swap by way of a reparcelling is that this facilitates a large degree of budget neutrality and that the reparcelling is statutorily required thereby making it possible to implement the plans more quickly. In addition, the necessary guarantees in the zoning areas involved remain relatively the same prior to and after the exchange, so that the spatial balance or spatial accounting remains in balance. In other words this instrument goes a long way to meeting the objections that can be made to the regular set of instruments applied in spatial planning.

However, the instrument also has a potential downside. For example, the potential discrimination that can arise when the instrument is applied to compensate the developers of unbuildable land in residential areas in kind with ground marked for development, because the actors who have speculated are rewarded whereas under normal circumstances they would not even have been eligible for plan damage compensation.⁶⁵ This could be accommodated by taking into account the predictability of damage when establishing the financial compensation within the scope of the reparcelling. The risks that at the time he acquired the land the owner ought to reasonably have taken into account, such as a known flood risk, are deemed to have been accepted by him with the result that the subsequent damage is for his own account. The acceptance of the risk can be assessed more stringently where there is more information available on the flood risk, for example when flood charts have been drawn up.

5. Concluding remarks

The Flemish Decree on Integrated Water Policy provides a number of tools to integrate water issues in the field of spatial planning, especially the Water Test and the harmonization clause. Not at least because of the wide-ranging field of application of the Water Test, also water quantity and climate change concerns are to be considered in the decision-making process of spatial planning. However, both instruments have some conceptual limitations which restrict their deployability for the implementation of the water storage policy in practice. Either they are too passive, or too slow in being deployed.

In the aftermath of the large-scale floods of November 2010 and January 2011, the Flemish Government gave shape to a new innovative water storage policy. The aim is to achieve a prompt, effective implementation of the new water storage policy in the field based on a programmatic approach. This policy is linked to the most critical areas, i.e. the areas in which, in line with the spatial zoning codes, one can build or operate but where the risk of flooding is realistic (called Signal Areas). In this context uncertainties and the risks of climate change are also taken into account. In these areas the construction or exploitation capability will be abolished by changing the current zoning codes, or will be regulated through use restrictions or building regulations (i.e. adaptive building). This occurs according to a 'next step trajectory' adopted by the Flemish Government, containing a new spatial planning perspective. The new perspective often has to be enshrined into spatial planning policy through the process of spatial development planning. Experience has shown, however, that between the adoption of a spatial development plan and its realisation, a large time gap arises. A rezoning operation that eliminates the

64 The land exchange plan provides an overview of the situation before the reparcelling (input) and the situation after the reparcelling (allocation).

65 Advisory Opinion of 26 June 2013 by the Strategic Advisory Council on Spatial Planning (*Strategische Adviesraad Ruimtelijke Ordening, SARO*) on the Draft Decree on Rural Land Use Planning, p. 10, <<http://rwo.be/Portals/100/saro/adviezen/SARO%202013-17%20Advies.pdf>> (last visited 17 February 2014).

legal ability of construction or allotment is also expensive because of the compensation to be paid. To achieve a faster and more budget-neutral realization of the water storage policy on the field, one will be able to use a new set of instruments in the future, namely statutorily required land reparcelling and, where appropriate, linked to a zoning swap.

Pending the required plan revision, appropriate preservative measures must be taken to prevent the foreclosure of the new development perspective set out in the 'next step trajectory'. This implies the imposition of a ban on building or building regulations. To this end, a number of new instruments are established. Together with a sharpened Water Test, to which end a recent circular sets out the necessary guidelines, a public utility easement can be used. The latter instrument is not tied to licensing or planning processes, so a major obstacle in the application of the Water Test will be resolved.

However, the new system also has certain weaknesses, having to do with the legal validity thereof. The authorities adopting the spatial development plans are after all not bound by the 'next step trajectory' adopted in the field of water policy. It cannot therefore be ruled out that in the end the targeted water retention policy will not be incorporated or integrated in the spatial development plan. A similar concern may be formulated regarding the preservative policy, as the guidelines for the application of the sharpened Water Test are also not binding. As a consequence, the authorities must also take care that the water paragraph is adequately reasoned: a simple reference to the guidelines is not enough.

Next to that, the question of damage compensation arises. Indeed, the loss that is incurred resulting from a negative Water Test is not compensated in the current legislation. The lack of compensation is difficult to defend in light of the doctrine of equality before public burdens, especially when a construction ban or a major restriction on use resulting from the Water Test is imposed to limit the risk of flooding in the wider surroundings of the parcel of the project owner involved. The lack of compensation in these cases undermines the social support for the water management and hence climate change adaptation.

These caveats are outweighed by the predominantly positive evaluation of the new policy. It provides a solid, coherent basis for safeguarding water storage capacity in vulnerable areas. In this sense, it provides the necessary protection against flooding and the adverse effects of floods. The new instruments, namely statutorily required land reparcelling and a zoning swap, enables a faster and more budget-neutral spatial planning. Definitely, at the present it is an open question whether the ultimate objective will be achieved. For legal practitioners the wisdom of Jean de La Fontaine (Fables, I, 22 The Oak and the Reed) remains: But let us just wait until the end. ¶