

Obstacles to the delivery of adaptation to climate change (water storage) in municipal spatial planning

The ESPACE Extension Project

In the ESPACE Extension Project, Waterschap Rivierenland explored the obstacles to implementation of water storage at a local level by municipal authorities and the related issues. As part of the ESPACE project Waterschap Rivierenland developed Guiding Models. The Guiding Models were intended to serve as a theoretical tool that would aid the implementation of water storage and other forms of land use at a local level. Waterschap Rivierenland developed this tool to provide innovative solutions and options for water management at a local level in the face of climate change. However, it found that although the tool is extremely useful both as a visualization tool and as a communication tool and can be used to engage with the key stakeholders involved in local implementation, there are still issues with the actual delivery of the proposed water management options. To improve the water storage system space claims, identified by Norm Studies, need to be incorporated in municipal spatial plans. This is where the difficulties arise. Some municipal authorities are incorporating water storage options in their spatial planning, others are not. This study explores the obstacles to and issues surrounding the incorporation of adaptation to climate change (water-related issues in particular) in municipal spatial planning and what can be done to overcome the obstacles and resolve the issues in order to ensure better implementation at a local level.

As part of the ESPACE Extension Project, Waterschap Rivierenland reviewed three processes that the water board has introduced to help municipal authorities incorporate the implementation of adaptation to (water-related aspects of) climate change in their spatial planning:

1. ESPACE (Guiding Models and Norm Study)
2. Water Plan
3. Water Assessment / Water Test.

1. ESPACE (Guiding Models and Norm Study)

Part 1 of the ESPACE project resulted in the formulation of a strategy that endeavours to influence the philosophy and practice of spatial planning by making recommendations as to how adaptation to climate change can be incorporated in spatial planning. The strategy presents a set of fourteen recommendations that are complemented by a series of case studies, tools and examples of policy advice developed by the partners involved in the ESPACE project. Waterschap Rivierenland's contribution to this strategy is based on the results of two projects: the Guiding Models project and the Norm Study in Pijpekasten and Voorvliet.

The Guiding Models are practical examples of ways that water storage can be combined with other land use functions. These models are supposed to initiate a dialogue between water management officials and spatial planners and provide Waterschap Rivierenland with input not only regarding the role of water management officials during the several phases of the planning process, but also regarding the role of water management officials in relation to the various actors involved in the planning process.

The Norm Study is a project and process carried out in specific locations that involves the actual implementation of water storage in accordance with the theory presented by the Guiding Models, and serves to raise awareness of the problem, to create a sense of urgency among the various actors involved and to develop solutions and measures that are widely supported. The municipal authorities agreed to incorporate the spatial claims identified by the Norm Studies in to their spatial plans. In the ESPACE Extension Project Waterschap Rivierenland looked to see if the municipal authorities had kept their promise.

2. Water Plan

The Water Plan differs from the Water Assessment in the sense that while the Water Assessment is concerned with new spatial plans and the prevention of water-related problems when there is a change in land use, the Water Plan is concerned with analysing and solving water-related problems in existing urban areas. The Water Plan is a water management plan for urban areas formulated by water boards and municipal authorities. All of the partners involved in water management worked on this plan in an

attempt to solve problems relating to the quantity and quality of water. As part of the ESPACE Extension Project, Waterschap Rivierenland conducted a survey to gain a better understanding of the municipal authorities' perception of this collaborative process with the water board.

3. Water Assessment / Water Test

The Netherlands has introduced a procedure known as the Water Test or Water Assessment. Every spatial (development) plan must now include a paragraph on water that summarises the way the plan will affect the water management system and the solutions that have been devised to compensate for the effects. The Water Test provides specific guidance on how to deal with water in spatial plans. It is a process in which spatial planners have to work in collaboration with the water board. When completing the paragraph on water in the spatial plan, the spatial planner is required to answer two questions:

- 1) Will your plan have any adverse effects on the water system either now or in the future?
- 2) If so, what measures does your plan include to compensate for this negative effect?

The Water Test is a direct link between the water management officials (employed by the water board) and the spatial planners (employed by the municipal authorities). Waterschap Rivierenland employs 25 Account Managers who cooperate intensively with the municipal authorities. As part of the ESPACE Extension Project Waterschap Rivierenland conducted a survey to gain a sense of the municipal authorities' perception of this collaborative process with the water board.

The issues addressed by the survey

The main question addressed by the survey was 'How and to what extent are water storage solutions anchored in the spatial planning process in the Rivierenland region and how does the process itself hinder the incorporation of water storage solutions in municipal spatial planning?' The survey also examines how and the extent to which the Norm Studies, the Water Plans and the Water Test are embedded in the municipal organisation.

Questionnaire

To find the answers to our questions we developed a questionnaire that addresses the incorporation of water storage solutions in spatial plans and the cooperation between the water board and the municipal authorities in general. Waterschap Rivierenland deals with 36 municipalities. In February of this year we sent the questionnaire to the municipal authorities in all 36 municipalities. To gain the highest possible response we enlisted the assistance of the Account Managers of the Waterschap Rivierenland Planning Department. Acting in their capacity as dedicated contact persons for municipal authorities, the Account Managers notified the municipal authorities of the survey in advance and inquired who the questionnaire should be sent to.

Results

A total of 27 of the 36 municipalities took part in the survey – a response rate of 75%. The results of the survey are presented below. The results are divided up into themes and each set of results is followed by a brief interpretation.

1. ESPACE (Guiding Models and Norm Study)

The process

On the whole, the municipal authorities are happy with the Norm Studies and the process that this involves. The majority of the respondents (63%/17 municipalities) claim to be satisfied, if not very satisfied, with the Norm Study process. 22% (6 municipalities) felt that they were not qualified to express an opinion and 15% (4 municipalities) say they are dissatisfied. As far as the interests of the municipalities are concerned, 15% (4 municipalities) feel that insufficient attention is devoted to their interests within the Norm Studies. 54% (20 municipalities) are of the opinion that they have sufficient input (when asked if they felt that sufficient attention was devoted to the interests of the municipality, the respondents answered ‘yes’ or ‘to a certain extent’).

Integration of the spatial claim in designated land use plans

When asked about the extent to which they had managed to integrate the spatial claim identified by the Norm Studies in their designated land use plans, 30% of the respondents (8 municipalities) said that they had assimilated the spatial claim either fully or partly in their designated land use plan. Another 30% (8 municipalities) are preparing to integrate the spatial claim in their plans. 37% (10 municipalities) do not have to contend with a spatial claim identified by the Norm Studies and 4% (1 municipality) is not aware of the existence of a spatial claim. The majority (14) of the municipalities who have incorporated the spatial claim in their designated land use plan have translated the spatial claim into a measurements map. Some of these municipalities have also taken the spatial claim into account in their regulations. One municipality has simply taken the spatial claim into account in its regulations and another municipality has translated the spatial claim into a power of amendment. When asked about the process of incorporating the results of the Norm Studies in designated land use plans, 42% of the respondents (11 municipalities) said that the process went smoothly. Another 42% (11 municipalities) said that the process went reasonably well. 15% (4 municipalities) said that the process proved difficult. Some of the municipalities have also incorporated the results of the Norm Studies in other plans. 48% (13 municipalities) have incorporated the results in their municipal Water Plan in one way or another. 11% (3 municipalities) have incorporated the results in the municipality’s structural vision and 4% (1 municipality) has incorporated the results in another plan.

Interpretation of the results

The positive feedback regarding the process of incorporating the results of the Norm Studies is well-known. Earlier evaluations also elicited positive feedback regarding the Guiding Models, the Norm Studies and the processes involved. Most municipal authorities value the intensive communication that is part of the process. The use of the interactive tool that Waterschap Rivierenland developed within the context of the ESPACE project met with a positive response. The fact that several municipalities feel that they do not have enough input is also well-known. Some municipal authorities feel that the process is of interest, but they are not convinced that the intrinsic results are any different than they would have been if the Norm Study had been conducted without workshops.

The municipal authorities have made more progress on incorporating the spatial claims in their designated land use plans than Waterschap Rivierenland had anticipated. This is a positive development. The feedback that the process of incorporating the spatial claim in designated land use plans went (reasonably) smoothly is also reassuring as far as Waterschap Rivierenland is concerned. Given the rumours that this was a difficult process, Waterschap Rivierenland decided not to insist that the spatial claims be incorporated in the designated land use plans, but the water board does consider it to be important that the results of the Norm Studies should be integrated in municipal policy in one

way or another. Given that this is the case, it is reassuring to see that some of the municipal authorities have translated the results of the Norm Studies into municipal Water Plans, for example.

2. Water Plan

Status and process

The status of the progress on the Water Plans is encouraging. All of the municipal authorities who took part in the survey (27 municipalities) have started drawing up a Water Plan. And 37% (10) of the municipal authorities are now implementing Water Plans that have been approved by the water board. 26% of the respondents (7 municipalities) have drawn up a Water Plan and 7% (2 municipalities) have adopted a plan. 29% (8) of the municipalities are preparing to draw up a Water Plan. The feedback on the collaboration with the water board is also encouraging. 87% of the respondents (20 municipalities) feel that the process is going (very) smoothly. 9% of the respondents (2 municipalities) are neither satisfied nor dissatisfied and 4% (1 municipality) is dissatisfied with the way the process is going.

Calculation of the municipal water task in the Water Plans

In terms of their content, 85% of the Water Plans (23 municipalities) include a calculation of the municipal water task. 7% of the respondents (2 municipalities) have completed the calculations to some extent and another 7% (2 municipalities) have yet to do this. 78% of the Water Plans (18 municipalities) outline solutions for the municipal water task. 13% of the Water Plans (3 municipalities) contain partial solutions and 9% (2 municipalities) have simply calculated the water task. 70% of the respondents (16 municipalities) say that the measures and solutions they have devised are spatial measures.

Financing of measures

61% (14 municipalities) have arranged financing for all of the measures in their Water Plans in their long-range budget. 13% (3 municipalities) have arranged financing for some of the measures in their Water Plans and 26% (6 municipalities) have yet to arrange financing. 43% of the respondents (10 municipalities) feel that the Water Plan establishes parameters for the spatial planning within the municipality. 30% (7 municipalities) feel that this is the case to some extent, and 26% of the respondents (6 municipalities) feel that the Water Plan does not establish parameters for spatial planning within the municipality.

Implementation schedule for Water Plans

35% of the respondents (8 municipalities) say that the implementation of the Water Plans is behind schedule. Another 43% of the respondents (10 municipalities) say that the implementation of the Water Plans is on schedule. 22% (5 municipalities) say that some aspects are on schedule. When asked if the different interests that play a part in implementation hinder one another, 48% of the respondents (11 municipalities) confirm that this is the case. 22% (5 municipalities) feel that the different interests polarise in relation to one another and 30% (7 municipalities) see no relationship between the different interests

Interpretation of the results

At the moment 24 municipalities have drawn up Water Plans that have been approved by the water board. This is more or less the same as the percentage of municipalities that took part in the survey. The positive feedback regarding the collaboration on the drawing up of the Water Plans is familiar and the feeling is shared by Waterschap Rivierenland.

Some (14%) of the Water Plans that have been drawn up include a calculation of the municipal water task. This is the so-called first batch of Water Plans for the Water Management in the 21st Century project (WB21). The Water Plans that do not yet include calculations will be 'rectified' in 2008 with the carrying out of the necessary calculations.

26% of the municipal authorities have not (yet) arranged financing for the measures in their long-range budget. This is a familiar scenario that presents a problem when it comes to implementation. Given

that this is the case, since 2005 the water board only approves Water Plans if the municipal authorities have adopted the plan and arranged financing in their long-range budget.

Six of the municipalities feel that the Water Plan does not establish parameters for spatial planning. This can be explained by the fact that these particular municipalities have not (yet) been assigned a water task. In these cases the Water Plan will not have major spatial consequences.

3. Water Assessment / Water Test

Status and process

The vast majority of the respondents are satisfied with the process involved in the Water Test. 74% of the respondents (17 municipalities) claim to be (very) satisfied with the collaborative process with the water board, while 13% (3 municipalities) are dissatisfied. The survey made it clear that the municipal authorities submit plans to the water board for assessment at different stages. Most (78%) of the respondents (18 municipalities) submit plans to the water board for assessment during the preparation or even the initiation phase (17%/4 municipalities). 4% (1 municipality) submits plans to the water board for assessment during the (formal) planning stage. Generally speaking, the municipal authorities consider the Water Test to be functional (48%/11 municipalities). 39% (9 municipalities) see the Water Test in a negative light in the sense that it imposes planning restrictions. 13% (3 municipalities) feel that the Water Test makes a positive contribution to the quality of a plan or the quality of the space.

Influence on spatial planning

48% of the respondents (11 municipalities) say that they always take water into account when deciding on the location of capital-intensive developments. 13% (3 municipalities) do not take water into account and 39% (9 municipalities) sometimes take water into account when deciding on the location of capital-intensive developments. When deciding on the location of industrial premises (74%) 17 municipalities always and (26%) 6 municipalities sometimes take water into account.

Interpretation of the results

The water board are aware of the fact that not all municipal authorities are happy with procedures and the Water Test. Several municipal authorities still see the water board as a restrictive authority. It is very important that the water board continues to explain its role and responsibility so the municipal authorities understand why certain things are necessary. The need for continual explanation is exacerbated by the appointment of new municipal officials. The water board intends to cater for this by organising a training course on water for municipal officials approximately once every two years.

A high percentage (87%) of municipal authorities claim that they (sometimes) take water into account when deciding on the location of capital-intensive developments. The water board are surprised by this response. In our experience the percentage is far lower. This discrepancy may be explained by the fact that the municipal authorities make these considerations during an early stage in the planning prior to conferring with the water board.

COMMENTS MADE BY THE RESPONDENTS

16 of the 27 municipal authorities that took part in the survey took advantage of the opportunity to comment on their perception of the collaboration with the water board. These comments were made in response to two questions:

1. Do you have any suggestions that might help to improve the implementation of water storage solutions in spatial planning? (Please give a maximum of three suggestions.)
2. What aspects do you feel are going well and need to be retained in the implementation of water storage solutions in spatial planning? (Please give a maximum of three suggestions.)

1. Do you have any suggestions that might help to improve the implementation of water storage solutions in spatial planning? (Please give a maximum of three suggestions.)

16 of the 27 municipal authorities that took part in the survey made suggestions. Their suggestions can be divided up into the following categories:

Limit the assessment to the broad outlines and assess the plan as a whole

- Limit the assessment to the broad outlines. Only assess the plans that are concerned with water.
- Do not be too rigid when working out compensation.
- Also take other interests into account. Water is not the only interest.

The reaction of the water board

If Waterschap Rivierenland is involved early on in the planning process the water board has time and scope to contribute ideas. If Waterschap Rivierenland is involved at a late stage in the planning process, there is often little more that we can do than conduct an assessment. The water board is a functional democratic body that is charged with the specific task of safeguarding water-related interests.

Speed up the assessment process and tailor the assessment to the plan

- “The assessment conducted by Waterschap Rivierenland takes an inordinately long time.”

The reaction of the water board

The introduction of a new automated workflow system (from the beginning of 2009) will make it possible to speed up the process.

Alignment within the water board

- “Internal communication within Waterschap Rivierenland could be improved.”

The reaction of the water board

We are aware that internal communication and alignment within the water board could be improved and this is now being addressed as a matter of priority. The Integral Water Management (IWB) Department sees this as one of its primary responsibilities in relation to the Exemption, Maintenance and Knowledge Departments. The appointment of so-called area teams (for each sub-basin) is a first step in this direction. This arrangement may need to be refined with the creation of so-called ‘area teams’ for each municipality, which will make it possible for all of the water board official within a municipality to reach agreements with one another regarding the status of the various processes within the municipality once a month.

2. What aspects do you feel are going well and need to be retained in the implementation of water storage solutions in spatial planning? (Please give a maximum of three suggestions.)

16 of the 27 municipal authorities that took part in the survey made suggestions regarding things that they feel need to be retained. Their suggestions can be divided up into the following categories:

Consultation between municipal authorities and water boards

- We need to get to know one another, know how to contact one another, and confer with one another on a regular basis.
- Flexible consultation far enough in advance.
- Good alignment/coordination between the municipal authorities and the water board.

The reaction of the water board

Municipal officials clearly appreciate being able to work with a designated account manager (a single contact person who is appointed to liaise with a municipality). Given that this is the case, the water board will continue to work in this way.

Think integrally

- The water board (regularly) contributes ideas for solutions to water and spatial planning problems. The combination of water management and spatial planning can produce quality.

The reaction of the water board

This is indeed an important principle that can help to solve all kinds of problems and create solutions. Given that a certain amount of space needs to be used for water storage in urban areas, it is possible to generate greater support for the measures that need to be implemented by emphasising the added value of water management solutions (in plans that involve multiple use of space, for example). The water board has been making increasing efforts in this direction in recent months. Incorporating a spatial claim in a way that simultaneously increases the spatial quality of an area can help to dispel some of the reluctance experienced by the planners (the creation of stretches of water is very expensive).

Conclusions and Recommendations

The survey (and experiences in practice have) revealed several obstacles to the implementation of water storage solutions in municipal spatial planning. The survey identified the following obstacles:

- Conflicting priorities
- Different thinking / Different languages / Different cultures
- Lack of creativity (win-win)
- Lack of a sense of urgency
- The tendency to see the water board as a restrictive authority.

Water management and spatial planning go hand in hand in the Netherlands. Given that this is the case, the water boards and the municipal authorities have to find a way to work together. Processes such as the Norm Studies, the Water Plans and the Water Assessment are all working to some extent, but the municipal authorities tend to see them as constraining. As far as they are concerned, water management is just one of the aspects that need to be taken into account during the spatial planning process. Municipal authorities do not regard water management as a natural integral component of the spatial planning process. And while the motto 'water is leidend' ('water is a guiding principle') was adopted at the level of central government within the context of spatial planning some years ago, the motto has yet to be adopted at a local level. As far as the municipal authorities are concerned, spatial planning is a battle between conflicting priorities. Sometimes water wins, sometimes it loses. Nevertheless, the conclusions drawn from the response to the study suggest that the collaborative processes between the municipal authorities and the water boards are working as well as can be expected. The fact that the municipal authorities see all three processes in a positive light is the most important indicator that this is the case. In summing up these conclusions we can say that, while there are obstacles to the implementation of water storage solutions in municipal spatial planning, these obstacles can be overcome through a combination of:

- Legislation and agreements (such as the Water Assessment and National Water Agreements).
- Partnership: an ongoing dialogue with a proactive water board which points out opportunities and thinks and acts integrally. A partnership in which the need for water management might be seen as a constraining factor but the Water Test as a process instrument is not seen in this light.

Some of the conclusions of the earlier ESPACE study, 'Guiding Models', are also relevant in this context:¹

- The role of agenda setter (communicating a 'sense of urgency') is especially relevant for those charged with the task of water management.
- Those charged with the task of water management need to be prepared to fulfil a broad agenda-setting and activating role.
- It is up to those charged with the task of water management to identify the added value of the link between water storage solutions and the planned spatial development.

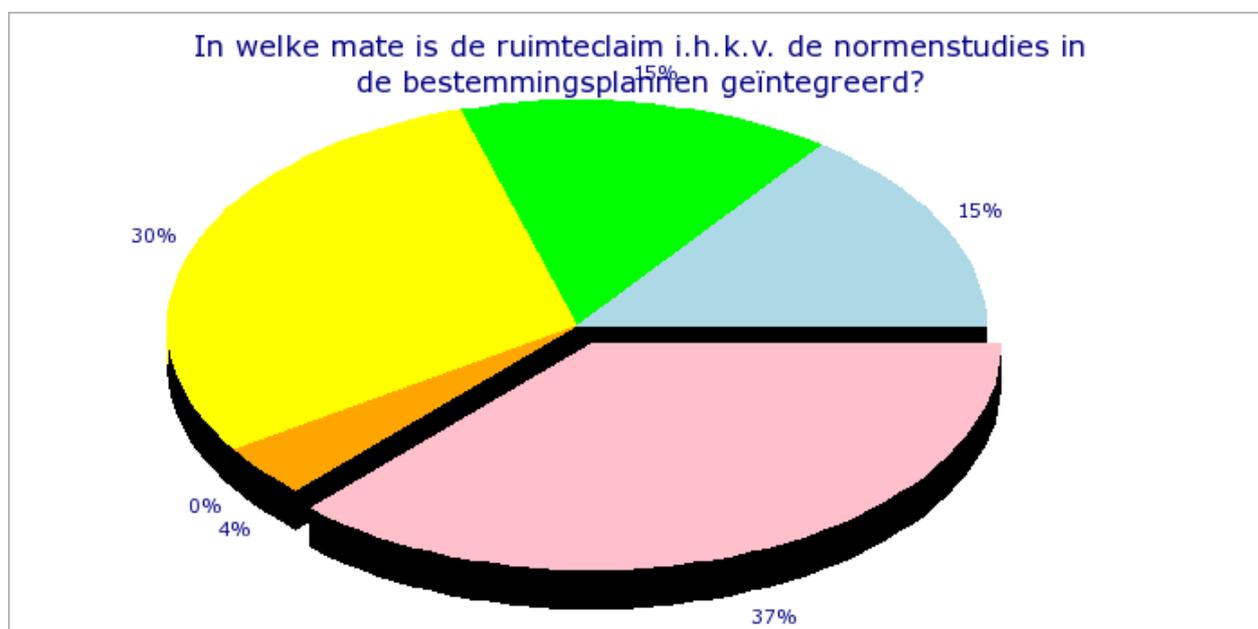
¹ Gidsmodellen voor waterberging, mogelijkheden voor waterberging en meervoudig ruimtegebruik in het rivierengebied, WSRL, 2004 [Guiding Models for water storage, possibilities for water storage and multiple use of space in the River Region, Waterschap Rivierenland, 2004]

Report of the Survey

ESPACE

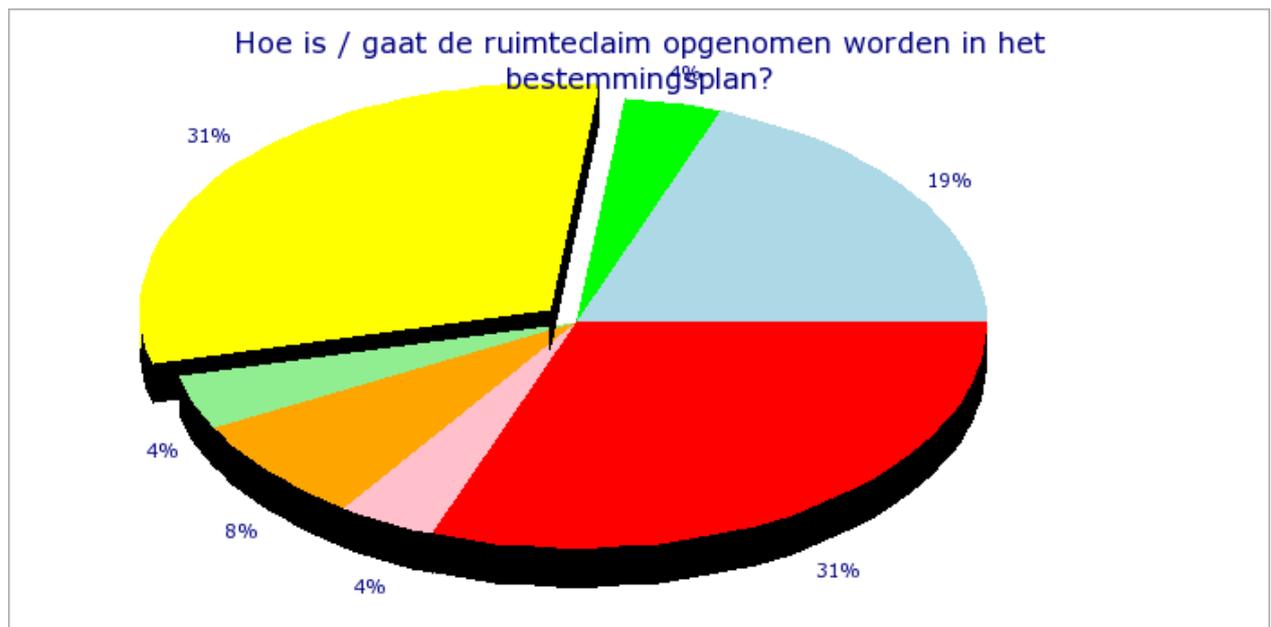
To what extent has the spatial claim identified by the Norm Studies been integrated in your designated land use plans?

Fully	14.81%
Partly	14.81%
Plans are currently being prepared	29.63%
We do not integrate the spatial claim	0%
We are not aware of a spatial claim	3.7%
We have not been assigned a spatial claim by a Norm Study	37.04%



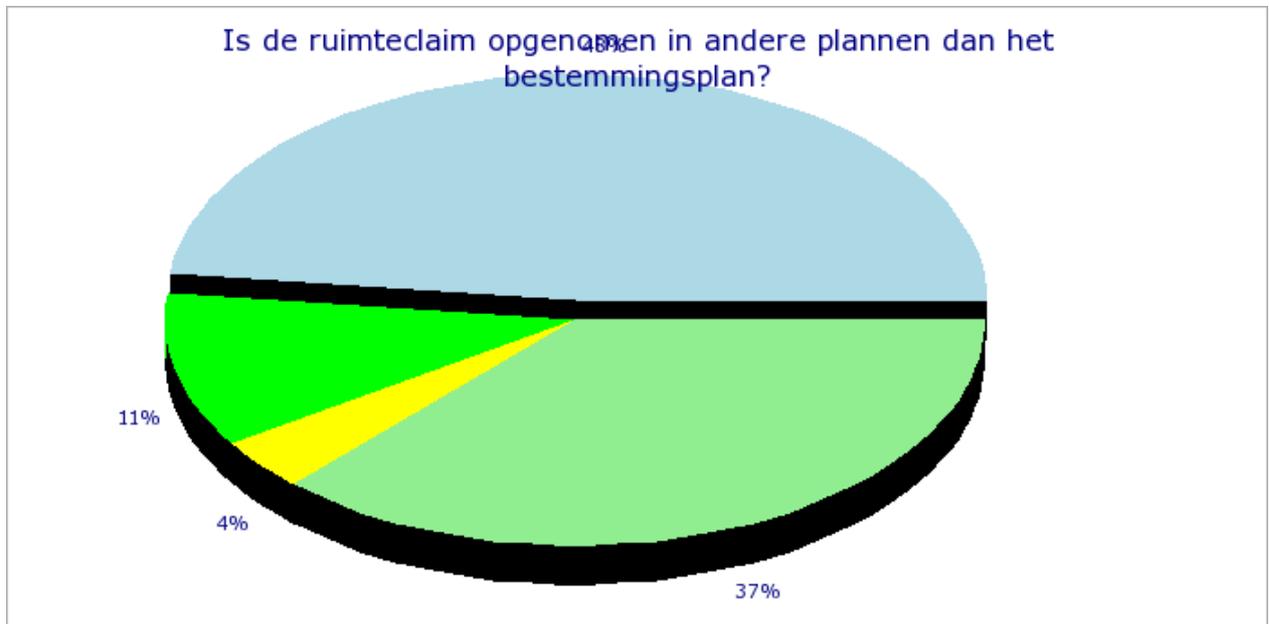
How have you integrated / do you intend to integrate the spatial claim in to your designated land use plan?

Measurements map	19.23%
Regulations	3.85%
Regulations and measurements map	30.77%
Power of amendment (article 11 of the Spatial Planning Act)	3.85%
It will not be integrated in the designated land use plan	7.69%
We are not aware of a spatial claim	3.98%
We have not been assigned a spatial claim by a Norm Study	30.77%



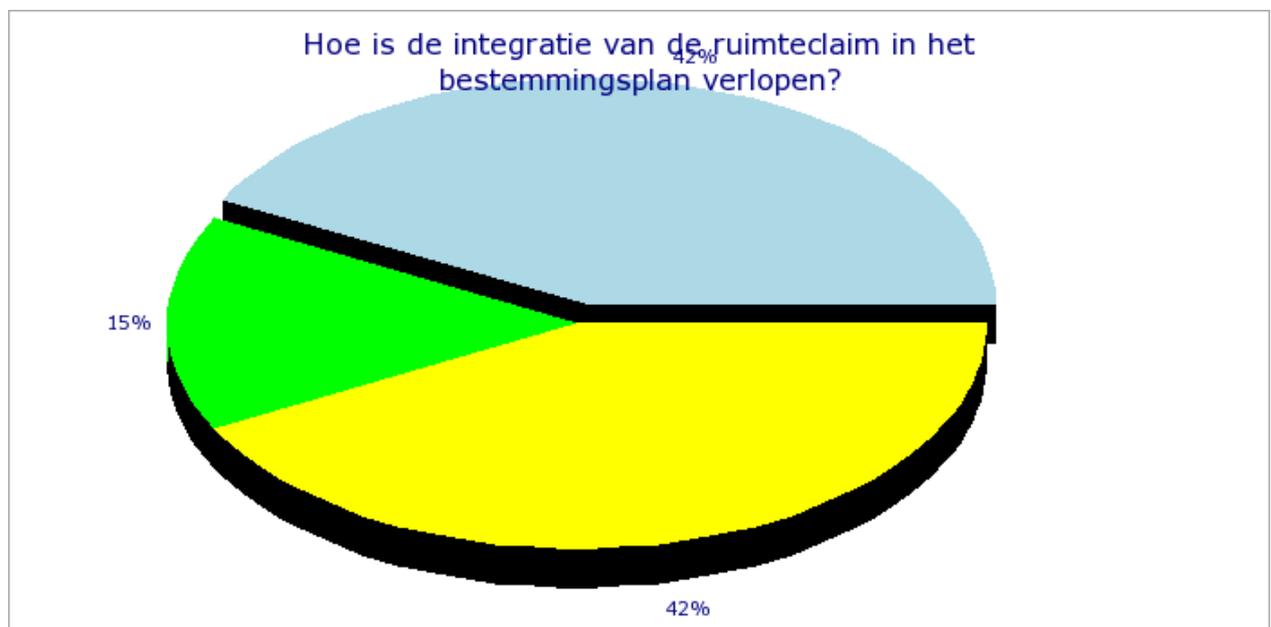
Has the spatial claim been incorporated in plans other than the designated land use plan?

Municipal Water Plan	48.15%
Structural Vision	11.11%
Other plan	3.7%
No	37.04 %



How do you feel that the process of integrating the spatial claim in to the designated land use plan is going?

The process is going well	42.31%
The process is proving difficult	15.38%
The process is going reasonably well	42.31%



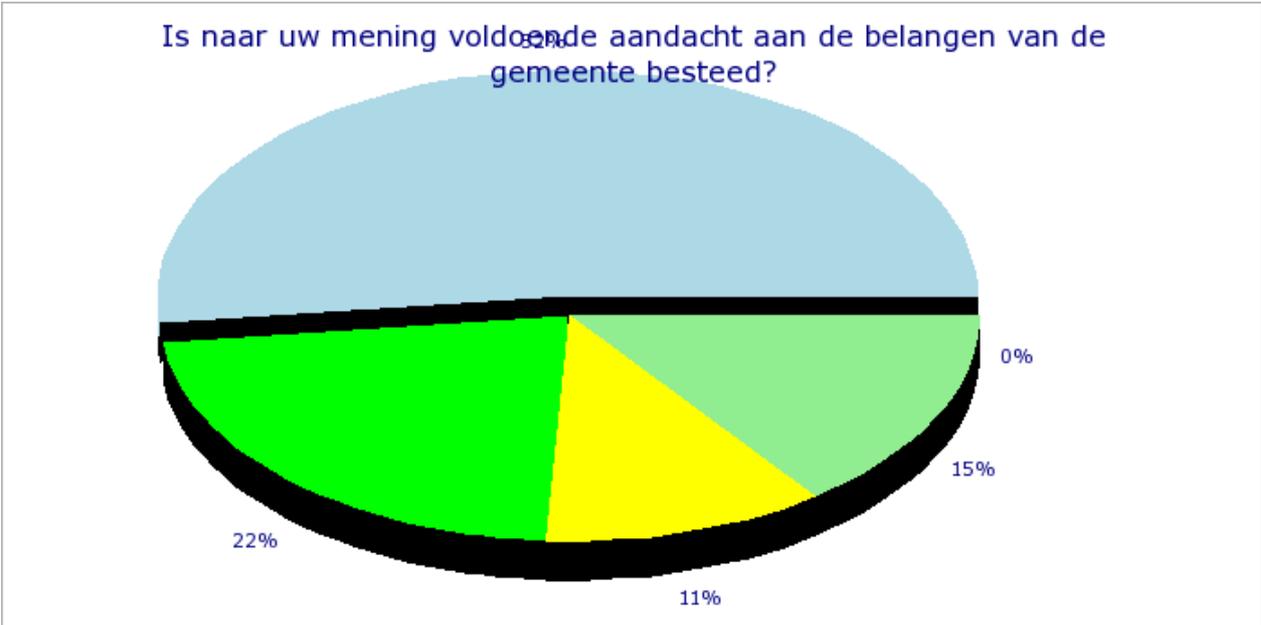
How satisfied are you with the Norm Study process conducted by the water board?

Very satisfied	11.11%
Satisfied	51.85%
Not qualified to express an opinion	22.22%
Dissatisfied	14.81%
Very dissatisfied	0%



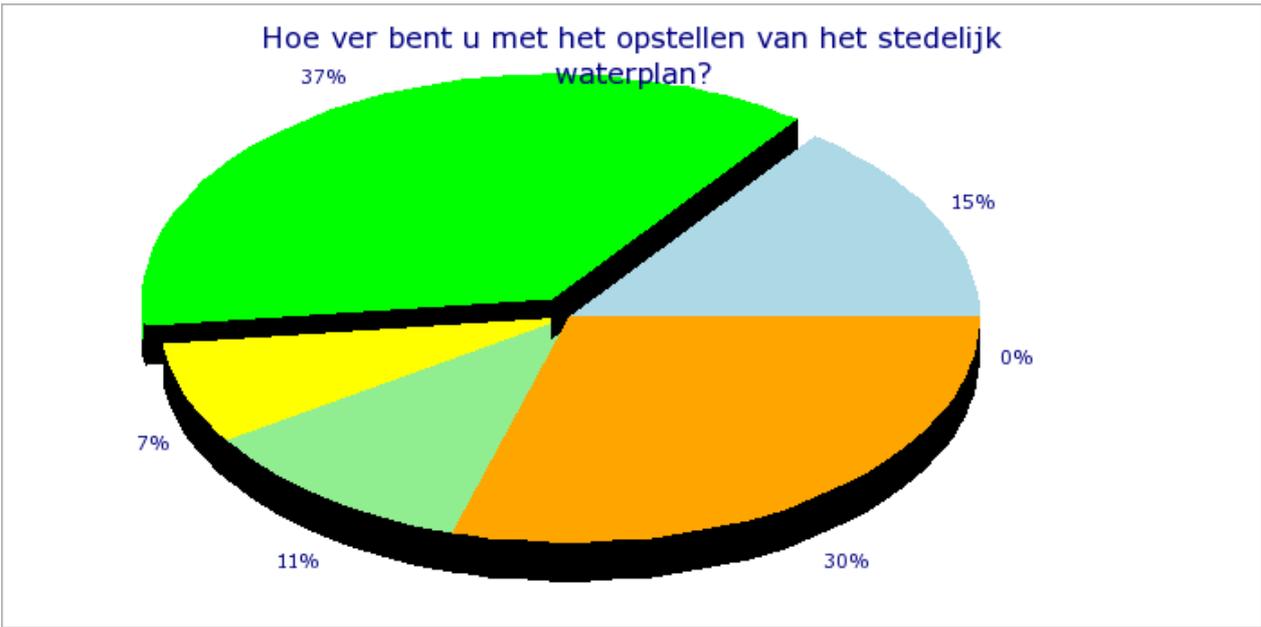
Do you feel that sufficient attention is devoted to the interests of the municipality within the Norm Studies?

Yes	51.85%
To a certain extent	22.22%
Not qualified to express an opinion	11.11%
No	14.81%
Definitely not	0%



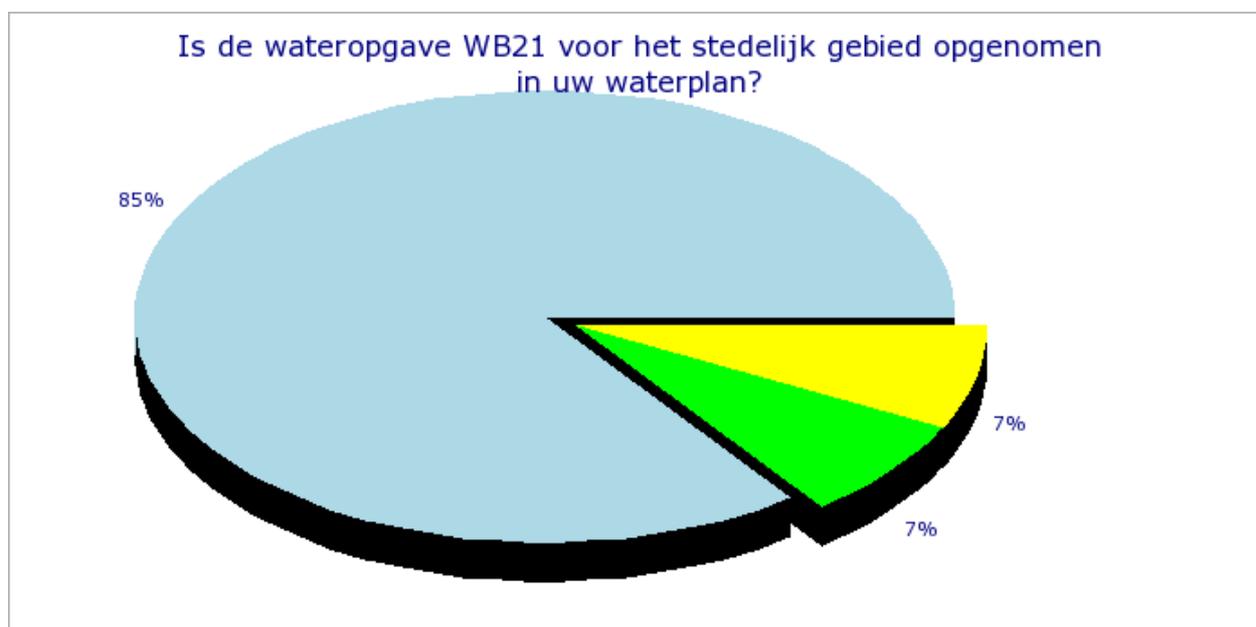
How much progress have you made in drafting the municipal Water Plan?

The plan has been drafted	14.81%
The plan has been adopted and is now being implemented	37.04%
The plan has been drafted and adopted	7.41%
The plan has been drafted	11.11%
The plan is in the process of being drafted	29.63%
We have yet to start drafting the plan	0%



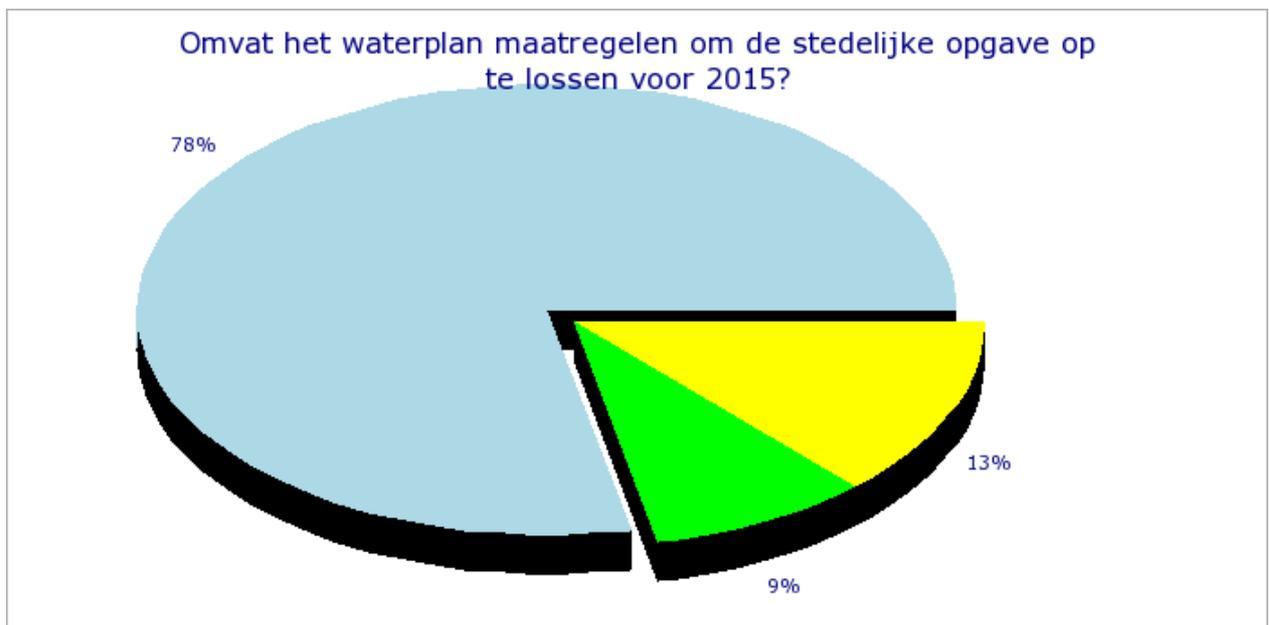
Have you calculated the municipal water task for the Water Management in the 21st Century (WB21) project in your Water Plan?

Yes	85.19%
No	7.41%
To a certain extent	7.41%



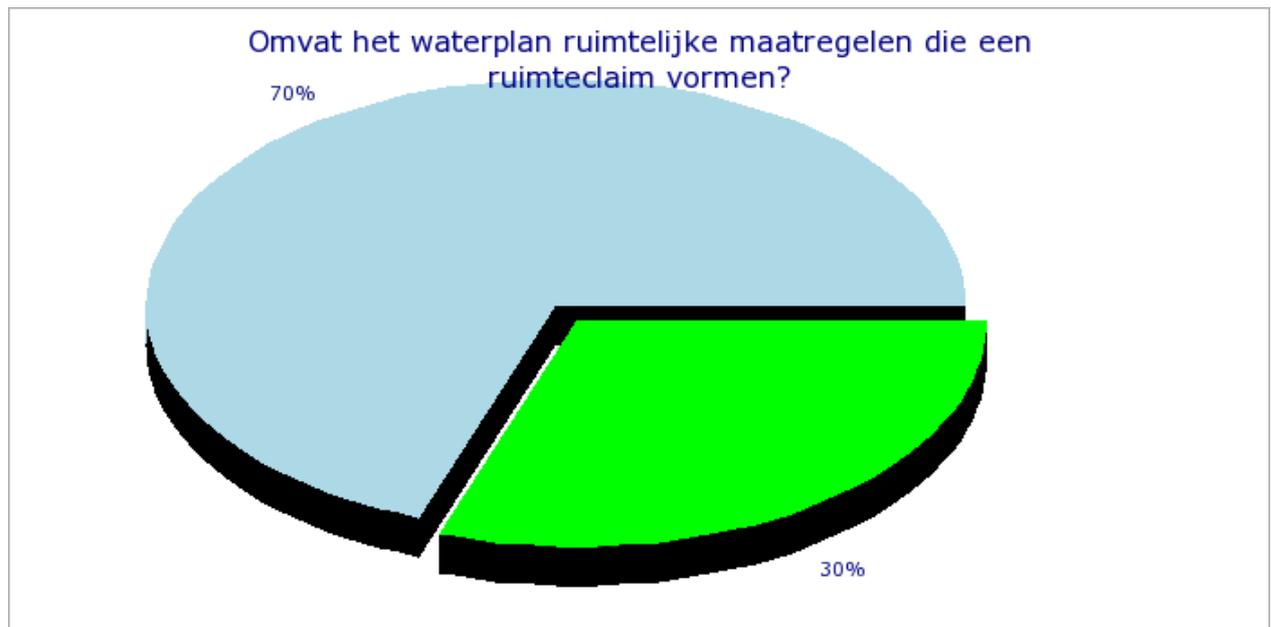
Does your Water Plan include measures designed to deal with the municipal water task by 2015?

Yes	78.26%
No	8.7%
To a certain extent	13.04%



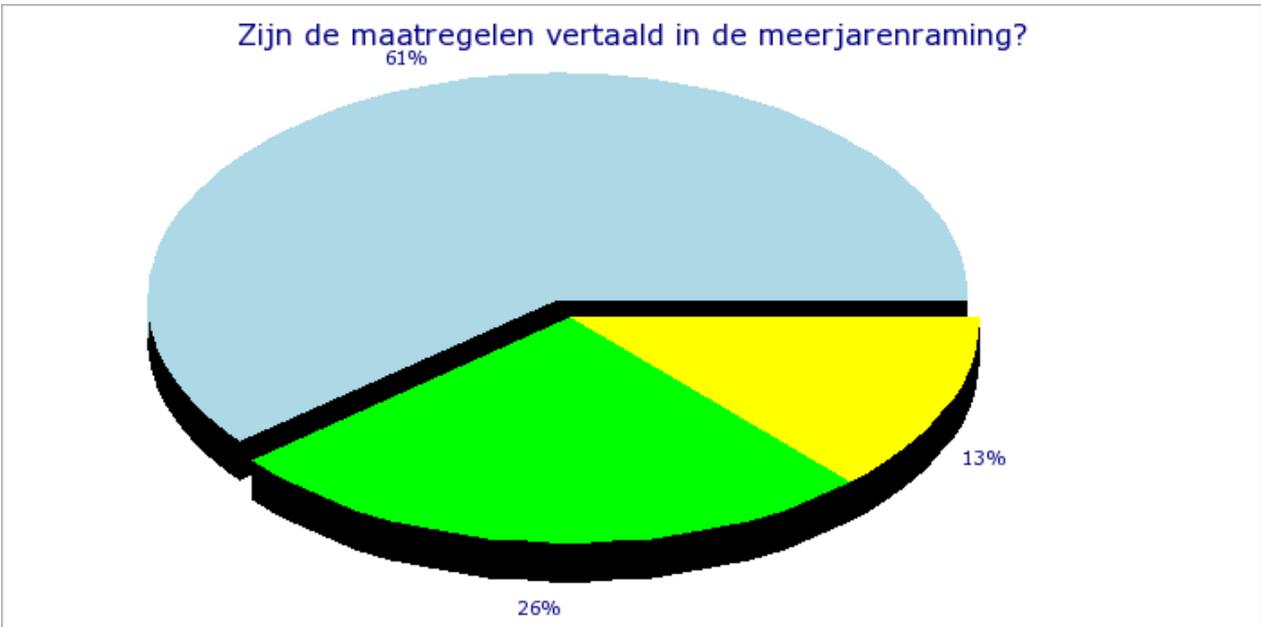
Does your Water Plan include spatial measures that form a spatial claim?

Yes	69.57%
No	30.43%



Has the financing of the measures been allowed for in the long-range budget?

Yes	60.87%
No	26.09%
To a certain extent	13.04%



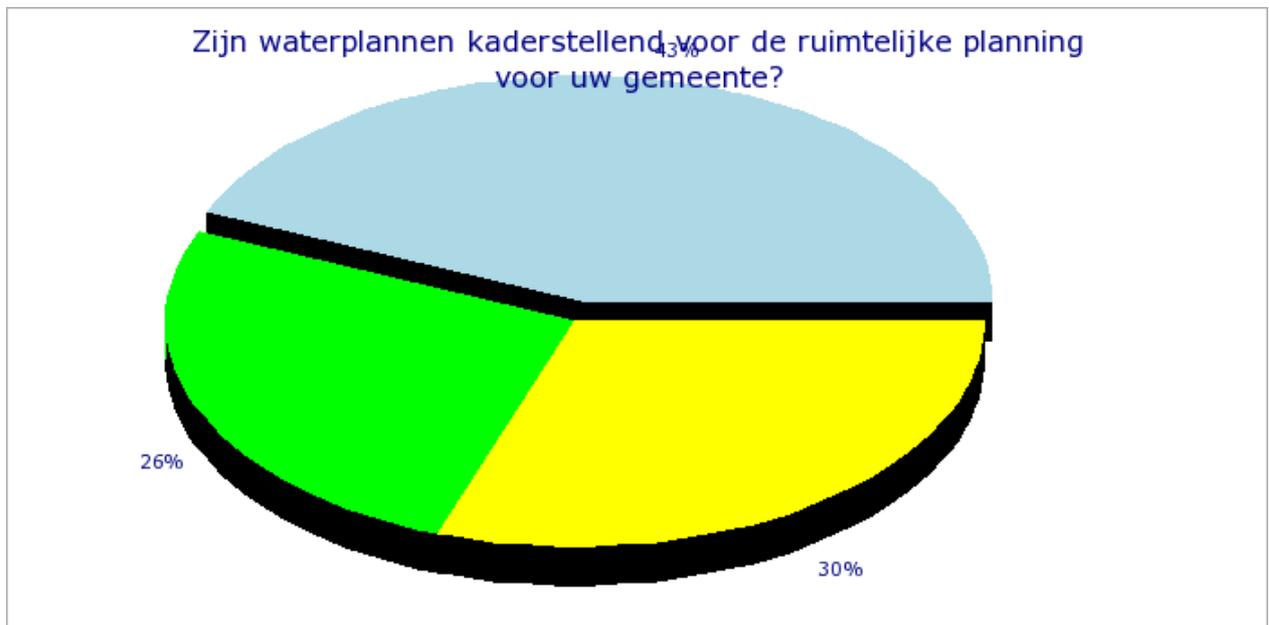
Is the implementation of the Water Plan on schedule?

Yes	43.48%
No	34.78%
To a certain extent	21.74%



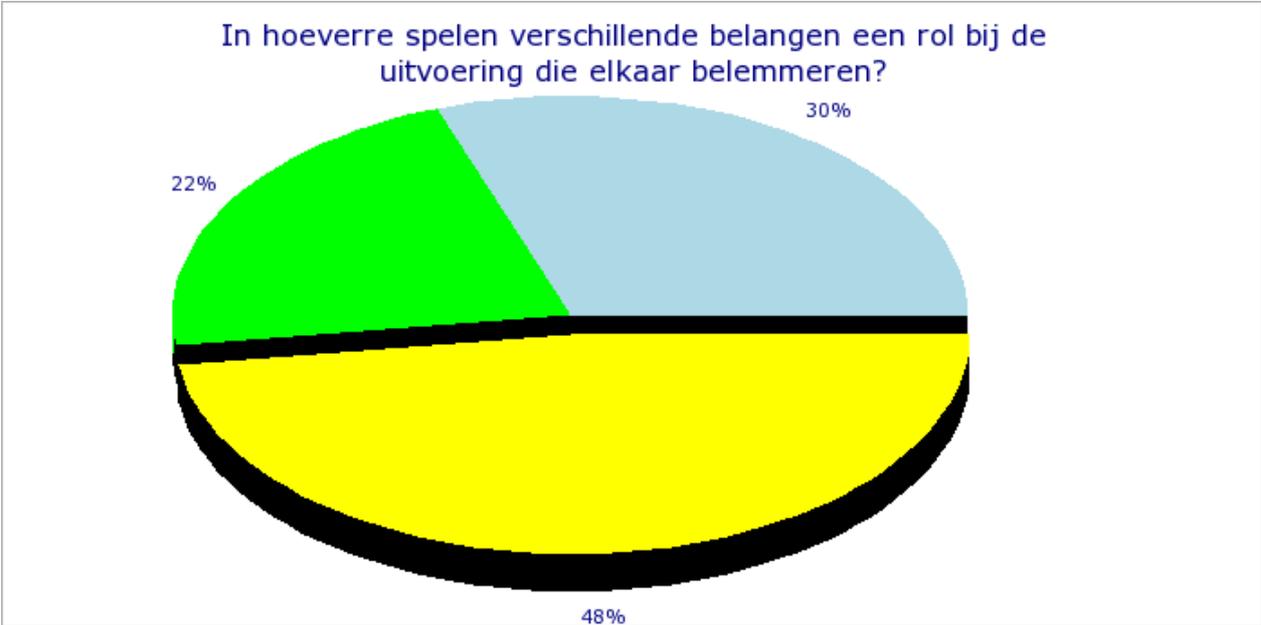
Do Water Plans establish parameters for spatial planning within your municipality?

Yes	43.48%
No	26.09%
To a certain extent	30.43%



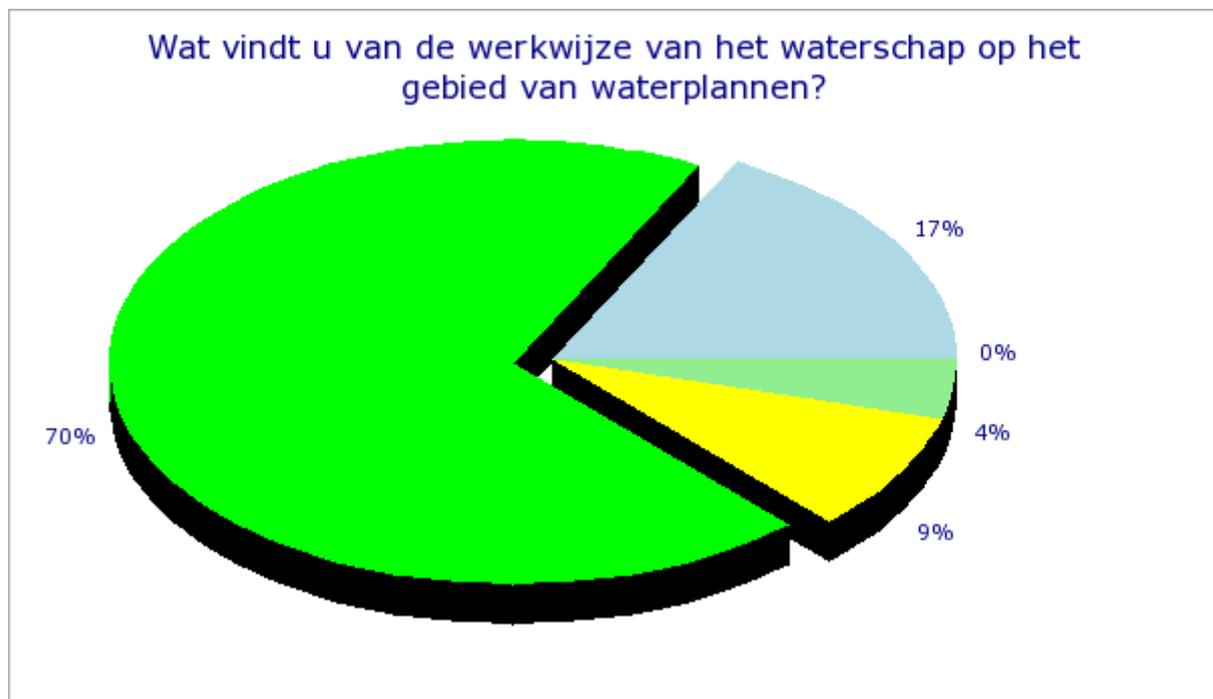
Do you feel that the different interests that play a part in implementation hinder one another?

No	30.43%
Yes – they become stronger in relation to one another	21.74%
Yes – they hinder one another	47.83%



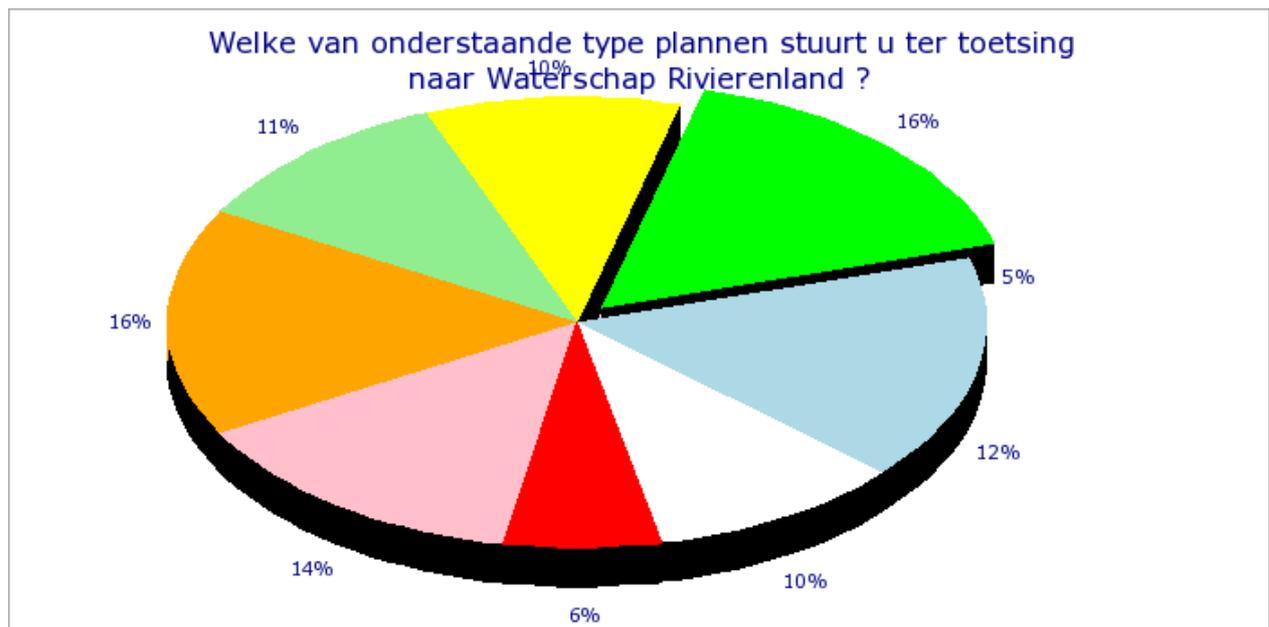
How satisfied are you with the way that the water board approaches the Water Plan process?

Very satisfied	17.39%
Satisfied	69.57%
Not qualified to express an opinion	8.7%
Dissatisfied	4.35%
Very dissatisfied	0%



Which of the following types of plans do you submit to Waterschap Rivierenland for assessment?

Preliminary planning decision	26.09%
Preliminary draft of designated land use plans	91.30%
Draft of designated land use plans	56.52%
Designated land use plan	60.878%
Exemption from article 19.1	91.30%
Exemption from article 19.2	78.26%
Exemption from article 19.3	34.78%
Amendment to the plan and elaboration of article 11.9	56.52%
Structural plans or structural vision	65.22%



At what stage do you submit your plans to the water board?

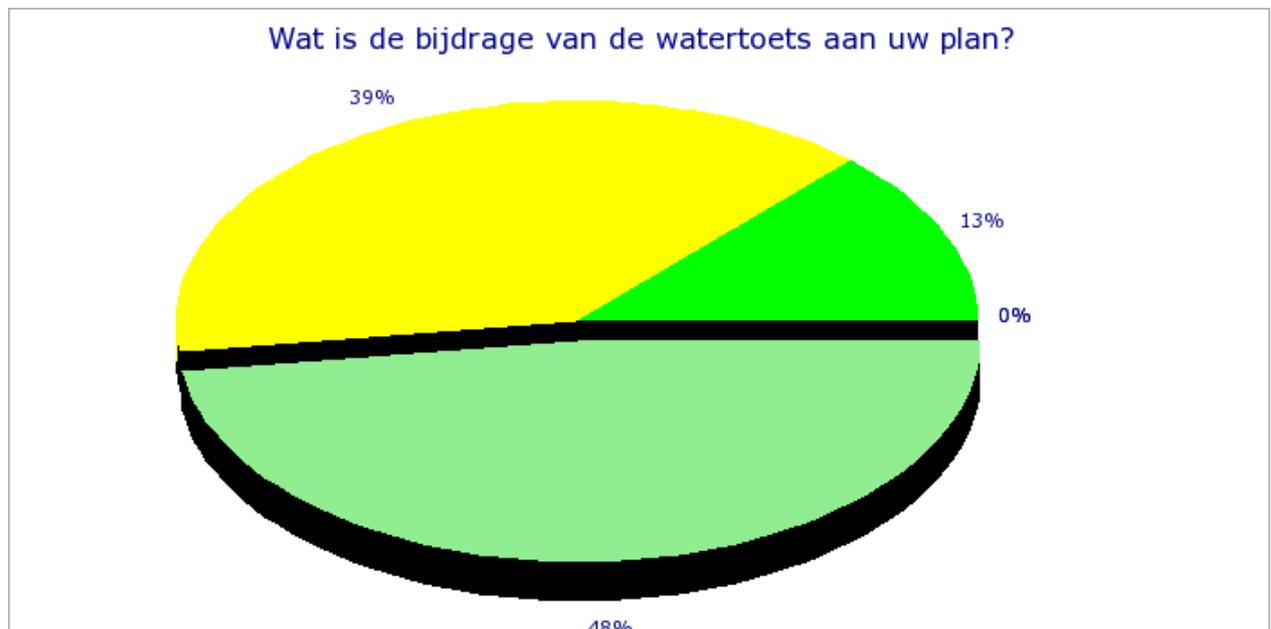
During the initiation phase	17.39%
During the preparation phase	78.26%
During the planning phase	4.35%
On completion for perusal	0%



How does the Water Test contribute to your plan?

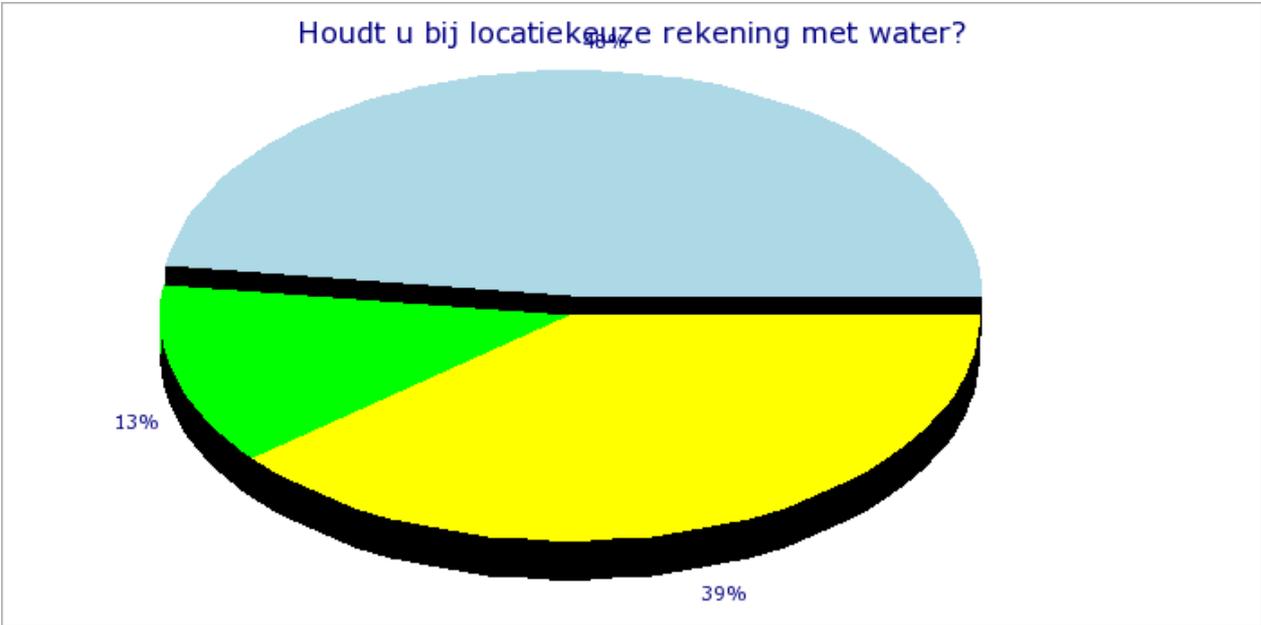
(NTotal = 28) (NValid = 23)

Water Test does not contribute to the plan	0%
Water Test improves spatial quality	13.04%
Water Test imposes restrictions	39.13%
Water Test is functional in helping to achieve water objectives / climate stability	47.83%
Water Test is excessively time-consuming	0%



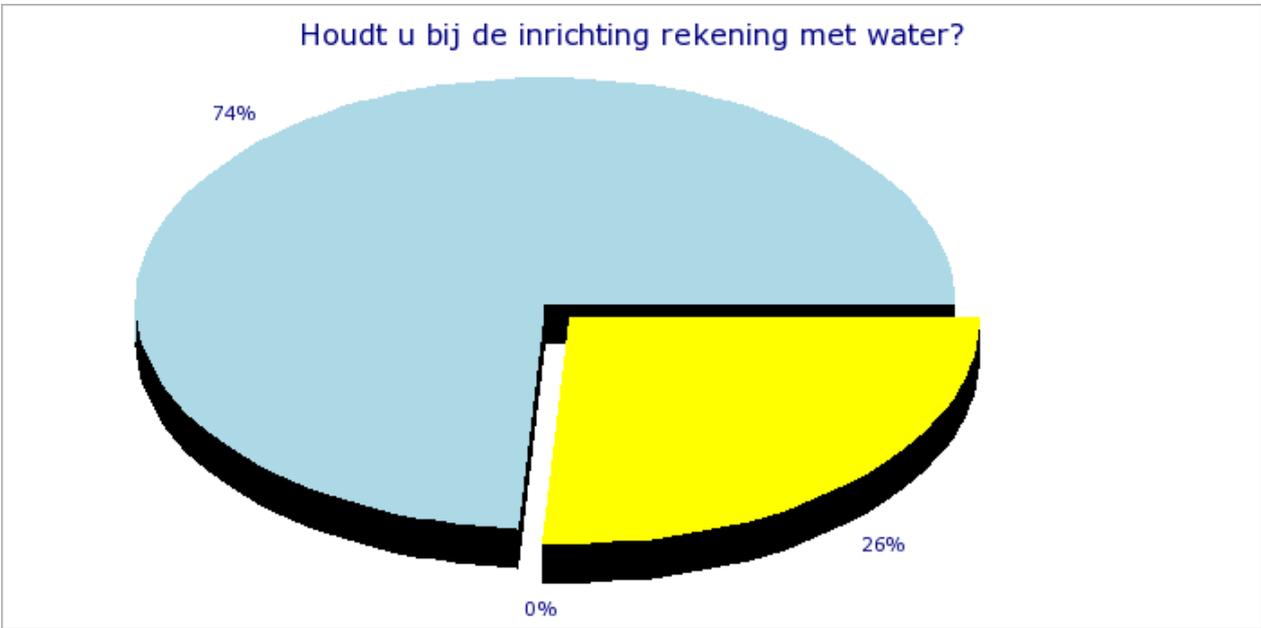
Do you take water into account when deciding on the location of developments?

Yes	47.83%
No	13.04%
To a certain extent	39.13%



Do you take water into account when deciding on the location of industrial premises?

Yes	73.91%
No	0%
To a certain extent	26.09%



How satisfied are you with the way that the water board approaches the Water Test?

Very satisfied	8,7%
Satisfied	65,22%
Not qualified to express an opinion	13,04%
Dissatisfied	13,03%
Very dissatisfied	0%



Do you have any suggestions that might help to improve the implementation of water storage solutions in spatial planning? (Please give a maximum of three suggestions.)

1. Limit the assessment to the broad outlines. Only assess the plans that are concerned with water. The assessment conducted by Waterschap Rivierenland takes an inordinately long time.
- 1.2 Rather than regarding the water task as being related to a tightly bound location, it is advisable and necessary to adopt a far broader (area-wide) approach.
2. When developing new areas it is advisable to have key figures that can be used to gain an overall picture of the water task, rather than having to produce the detailed calculations currently required for each location. In other words, it would be better to work with rules of thumb for the spatial claim rather than immediately calculating litres and k values.
3. Waterschap Rivierenland sometimes takes longer to respond than expected. Internal communication within Waterschap Rivierenland could be improved. Too many people are involved within the municipality. It would be better to have a single coordinator.
4. Practice needs to be applied within the municipality.
5. **AquaRO** will need to be used in the near future.
6. Problems experienced in the past have led to agreements regarding the improvement of the contacts.
7. Internal communication could be improved.
8. Municipal authorities regularly appoint external agencies to prepare designated land use plans. It would be a good idea for these agencies to conduct a preliminary consultation with the experts within the municipality and the water board. (This is one of the tasks of the municipal authorities.) The municipal authorities are not always aware of the latest standard data. It would also be helpful if an updated set of data were made available in digital form when the data changes.
- 9.1. Policy and implementation need to be aligned within the water board.
- 9.2. Rather than simply including standard texts, the designated land use plans should include a detailed explanation of the principal and secondary water-related solutions.
- 9.3. Do not be too rigid when working out compensation.
10. We should confer with one another and provide one another with information at an early stage.
11. The Water Test and other such procedures should not be compulsory. The municipal authorities should be able to deviate from the procedure. The water board should help to finance the implementation of spatial and technical measures. The water board should make more of an effort to help identify solutions.

12. Greater consideration needs to be devoted to the various interests involved in spatial planning. Among other things these include development and utilisation, the interests of residents and maintenance.

13. Raise awareness of the importance of water management in spatial planning among officials and spatial planning managers. Raise awareness of the fact that the water task is not simply a burden but also offers opportunities for the organisation of public spaces. Identify and suggest solutions to the restrictions imposed by the water task. (In this case I am thinking of the fact that the creation of a(n attractive) stretch of water in a residential area is likely to meet with resistance because it represents a risk to child safety.)

14.1 Appoint a contact person to carry out water board policy consistently and effectively.

14.2 Improve communication.

15. Coordination within the water board. The municipality and the water board should both adopt a more integral view of the plans.

16. As regards question 22: It sometimes happens that we fail to receive specially tailored advice on water.

**What aspects do you feel are going well and need to be retained in the implementation of water storage solutions in spatial planning?
(Please give a maximum of three suggestions.)**

(NTotal = 28) (NValid = 16)

1. The process of implementing water management plans and Water Plans is going well. Develop policy to allow municipalities to take care of small plans (see Waterschap Veluwe).
2. We answered 'no' to questions 7 to 15 because we have yet to adopt a Water Plan. We are still in the process of drafting the plan. Once the plan has been drafted the answers to most of the questions will probably be 'yes'.
3. Constructive consultation with a representative of Waterschap Rivierenland.
4. Consultation far enough in advance.
5. Flexible consultation far enough in advance. The water board needs to be able to make subtle distinctions and should not simply be excessively technical in the way that it approaches things. The water board has to understand that the municipality has to be able to weigh up all of the interests.
6. Practical aspects of management and maintenance are now arranged to everyone's satisfaction on the work floor. The appointment of an account manager and the monthly water consultation have introduced greater flexibility in the contacts.
7. There needs to be extensive preliminary investigation of compensation sites.
8. Other interests need to be taken into account. Water is not the only interest.
9. Things need to be aligned early on.
10. We need to get to know one another, know how to contact one another, and confer with one another on a regular basis.
11. The water board (regularly) contributes ideas for solutions to water and spatial planning problems. The combination of water management and spatial planning can produce quality.
12. The maintenance requirements are exorbitant. A 4-metre-wide maintenance strip next to a stretch of water uses a great deal of land that could be used for other development and places enormous pressure on operating costs.
13. There are undoubtedly things that are going well, I am just not able to name any.
14. Rapid processing by the water board.
15. Preliminary consultation. Waterschap Rivierenland needs to contribute ideas based on a consideration of the needs and interests of the municipality.
16. There is good alignment between the municipality and the water board. See above for what can be improved. This can be done by improving procedures and making them clearer.

Other comments:

(NTotal = 28) (NValid = 3)

1. The plans are not only submitted to the water board during the planning phase. They are also submitted during the initiation phase, depending on the project and an estimate of the extent of the influence that water interests will have on the plan.

2. Comment in response to question 12. Has the financing of the measures been allowed for in the long-range budget? We have answered 'To a certain extent' because the long-range budget has not yet been drawn up. At the moment I am assuming that the financing of all of the measures will be allowed for in the long-range budget. Comment in response to question 13. Is the implementation of the Water Plan on schedule? We have answered 'No', because we have not yet drawn up a plan for the implementation of the Water Plan. So implementation cannot really be said to be behind schedule.

3. In response to the first few questions I indicated that we have not been assigned a spatial claim by a Norm Study. I was not always able to indicate this in response to many of the later questions.