

2. PUBLIC SUPPORT

In a densely populated area like Flanders, space is a scarce commodity, with many interested parties and stakeholders. In such an environment the projects of the updated Sigma Plan have a tremendous impact. To develop and support the Sigma projects in a rational manner, a process and project structure was drawn up. Such a project structure was also devised and implemented for the Kalkense Meersen Cluster Sigma project.

This chapter examines the project structure, the various stakeholders and interests in the Kalkense Meersen Cluster project and dealings with the agriculture target group. Finally, it provides an overview of the various procedural steps gone through.

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2.1 A tailored consultation structure

The consultation structure developed specifically for the updated Sigma Plan is twofold. On the one hand, there is consultation at the coordinating level. At that level, the global principles for all Sigma areas are defined and feedback is also provided on the development of the various projects and clusters. The policymakers at Flemish level are represented in this consultation. Together with interest groups from the Flemish level, thematic work groups examine a number of topics more closely and reach agreements in that regard. These are the agriculture and nature organisations, touristic stakehold-

ers and various federations, such as fishing clubs, hunters, weekend homes, etc.

In addition, a consultation structure is initiated at project level for each cluster. This consultation structure, the project-based work group, consists of a representation of the municipal authorities involved and the province, and the main local stakeholders, such as polder authorities, agricultural organisations, nature associations, etc. For specific topics, thematic sub-work groups are set up. In addition to the local authorities, these include the local associations of relevance to that topic. Bilateral consultation is also organised on specific subjects.

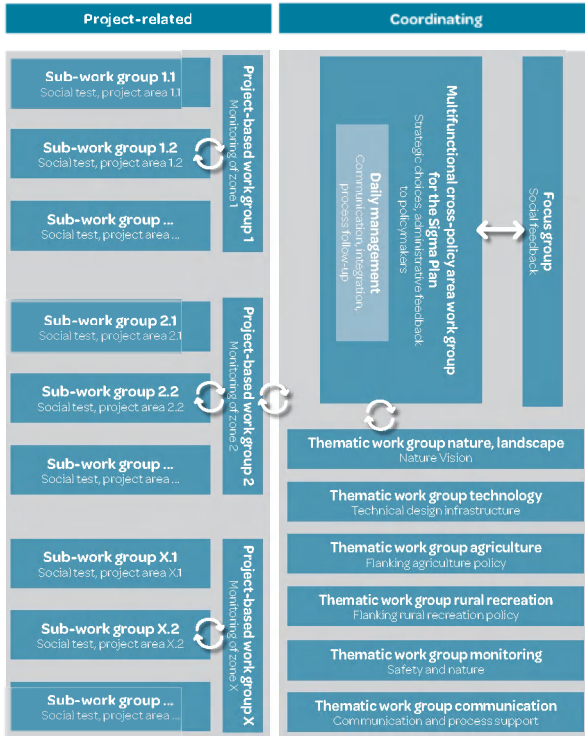


Figure 2.1. Consultation structure of the updated Sigma Plan

2.2 The consultation structure applied to the Kalkense Meersen Cluster

Various consultation sessions for the Kalkense Meersen Cluster, of which the Bergenmeersen project is a part, were held with the municipalities concerned. At an initial exploratory meeting in spring 2006, the Flemish Government's decision regarding the updated Sigma Plan was explained and the Most Desirable Alternative (MDA) presented. The flanking policy for agriculture, for which the Flemish Government also made

a decision, was also examined. That flanking policy includes a set of measures to mitigate the effects of the project on the agricultural sector and the farmers involved as much as possible. To that end, work began on the agricultural impact assessment (AIA) in 2006 (see Section 2.4). The results of the AIA were presented to the municipalities in May 2007.

Between June and December 2007, intensive talks were held with the project-based work group and the various thematic work groups, during which the organisational proposal was discussed and developed. Wherever possible, existing weaknesses and opportunities were also included.

In November 2007, the members of the various work groups were invited to a guided visit of the Lippenbroek trial project in Hamme. This allowed them to become acquainted first-hand with the concept of a flood control area with controlled reduced tide (FCA-CRT). This concept is also applied in the (existing) FCA at Bergenmeersen.

The land use plan was presented to the general public at an info market in Berlare in December 2007. More than 300 visitors learned about the various projects of the Kalkense Meersen Cluster.

In spring 2008, the land use plan was brought closer to completion. Preparations also began for the first formal procedural step, the drawing up of the environmental impact assessment. Section 2.4 examines each formal procedure more closely.



Figure 2.2. Guided visit of the Lippenbroek trial project

2.3 Stakeholders

The municipality of Wichelen, the polder authority of the Bergenmeersen polder, the farmers and agricultural organisations involved, nature organisations, as well as local residents (district of Nederkouter) are all stakeholders in the project. Representatives of each of these were included in the consultation structure (see Section 2.1).

2.4 Agriculture and expropriations

2.4.1 The impact on the agricultural sector

By definition, the Sigma areas on the Scheldt and its tributaries mostly lie in the former winter bed. Since the river was dyked in during the Middle Ages, farmers have converted the winter bed into farmland, often in the form of hay meadows. On the one hand, the value of this land to modern farming has fallen sharply because the plots are relatively small, often with a high groundwater level. On the other hand, due to the scope of the Sigma Plan, a large area of this land lies within the project areas.

To limit the take-up of farmland, it was decided to assign at the same time a nature and a safety objective to most of the project areas in the Most Desirable Alternative (MDA). However, a number of safety measures, such as the removal of polders or FCA-CRTs, are incompatible with agriculture. The concentration of nature measures into so-called hard nature cores also leads to the loss of farmland. This is because some types of nature objectives, such as the creation

of reed-land and forests, do not allow any further agriculture. Other zones are being organised as wet and/or rough grasslands, where a form of nature management will be applied that can only provide limited profits for agriculture.

The choices in the MDA therefore mean that economic, intensive agriculture will become impossible in the project areas. Concentrating the measures leads to a smaller take-up of farmland, but also to a greater impact for the farmers concerned. The drop in value for the owners and users of this land is so great that expropriation is an appropriate step. Due to the scope of the Sigma Plan, a large number of farmers are affected, some more than others. A flanking agricultural policy was therefore developed parallel to the updated Sigma Plan. This flanking agricultural policy was approved by the Flemish Government along with the MDA.

The flanking agricultural policy is based on expropriation and freehold purchasing, and sets out a number of measures to soften the impact. Some of these measures are existing schemes; others have never been used before and were developed in the course of the process. The Kalkense Meersen Cluster is acting as a test area for developing these new measures since the area contains a large proportion of farmland.

2.4.2 About expropriation and freehold purchasing

Various steps precede expropriation, such as the production of a regional spatial implementation plan (*gewestelijk ruimtelijk uitvoeringsplan* or GRUP) and an environmental impact assessment (EIA). When produc-

ing the MDA, the government assigned a “great social interest” to the updated Sigma Plan, as well as compulsory timing. Using these elements an expropriation order was drawn up and approved by the Flemish Government.

Expropriation is implemented by the Purchasing Committee, which is part of the Federal Government. In Belgium, it is not the expropriated owner of a plot of land who pays the land user. As a result, the Purchasing Committee has to negotiate with both parties to reach an agreement. This makes the expropriation process complex, especially if it involves large areas with a complex ownership structure and many users.

For Bergenmeersen, there are approximately 40 ha of land and around 125 plots that are being expropriated. A significant part of this is also leased to farmers.

A farmer who uses land without owning it is generally covered by the Farm Lease Law. Instead of expropriation, the phrase “freehold purchasing” is therefore used. The tenant farmer initially receives an “amicable” offer for the purchase of his freehold. The Purchasing Committee applies standard rules here, which evaluate the importance of the piece of farmland concerned within the farm in question and assign a monetary value to it: the freehold purchase allowance.

If the tenant farmer agrees with this allowance, this is known as an “amicable freehold purchase”. If a compromise cannot be reached, a case is brought before the cantonal judge. This case may concern the amount of the allowance, but also the need for the expropriation. In this last case,

the judge can declare the expropriation or freehold purchase invalid. This creates a stalemate, which can seriously delay the project. This is why an amicable expropriation is extremely important. The elements of the flanking agricultural policy aid in this process.

2.4.3 Measures of the flanking agricultural policy

Agricultural impact assessment

The Flemish Land Company (VLM) investigated the effect of the Sigma Plan on agriculture. It did so both at plan level and for the various sub-projects within the Sigma Plan. The agricultural sensitivity analysis mapped out the sectoral impact at plan level and helped determine the choice of project areas. The impact for individually affected farmers in a specific area is investigated in an agricultural impact assessment (AIA).

The VLM produced the agricultural impact assessment for the Kalkense Meersen Cluster in 2007. All farms (in the broad sense) were surveyed. According to this study, a total of 137 farms are affected within the Kalkense Meersen Cluster (Table 2.1). The AIA shows that the average size of farms in this area is fairly small and the age of the farmers fairly high. Converting the data from 2007 to 2013 (+6 years) indicates that the average age of farmers in the Kalkense Meersen Cluster is a little over 55. Fewer than 40% of farms are bigger than 40 ha (Table 2.3).

A personal info sheet was drawn up for each farmer with the location of his or her plots and a description of the characteristics of the farm. This makes the agricultural impact assessment one of the most detailed ever

Table 2.1. Age distribution in the Kalkense Meersen Cluster in 2007

Age bracket (2007)	Number	%
Unknown	1	1
< 35	11	8
36-45	36	26
46-55	37	27
56-65	37	27
> 65	15	11
Total	137	100

Table 2.2. Proportion of farms as main occupation in the Kalkense Meersen Cluster

	Number	%
Main occupation	84	61
Side occupation	10	7
Hobby	5	4
Retired	14	10
Not surveyed	24	18
Total	137	100

Table 2.3. Size of the affected farms in the Kalkense Meersen Cluster

Farm area	Number	%
< 10 ha	32	23
10-20 ha	24	18
20-40 ha	43	31
40-80 ha	35	26
80-150 ha	1	1
> 150 ha	2	1
Total	137	100

produced. Thanks to the report, farmers can also be monitored individually.

Bergenmeersen is a small subsector within the Kalkense Meersen Cluster. In total, fifteen farmers are affected. Most of these farms are losing a relatively small proportion of their land (<20%); however, that figure is more than 20% for four farms (Table 2.4). That loss will be felt all the more so because co-use in connection with nature management is not possible on land where an unmanaged estuarine area is being developed.

Perimeter adjustments

Based on the detailed information for each farm, a number of farms and house plots located on or by the edge of the project areas were able to be removed from the

Table 2.4. Percentage of the farm affected by the development of Bergenmeersen

% in Bergenmeersen	Number of farms
< 20%	8
20-40%	3
40-60%	1
> 60%	0

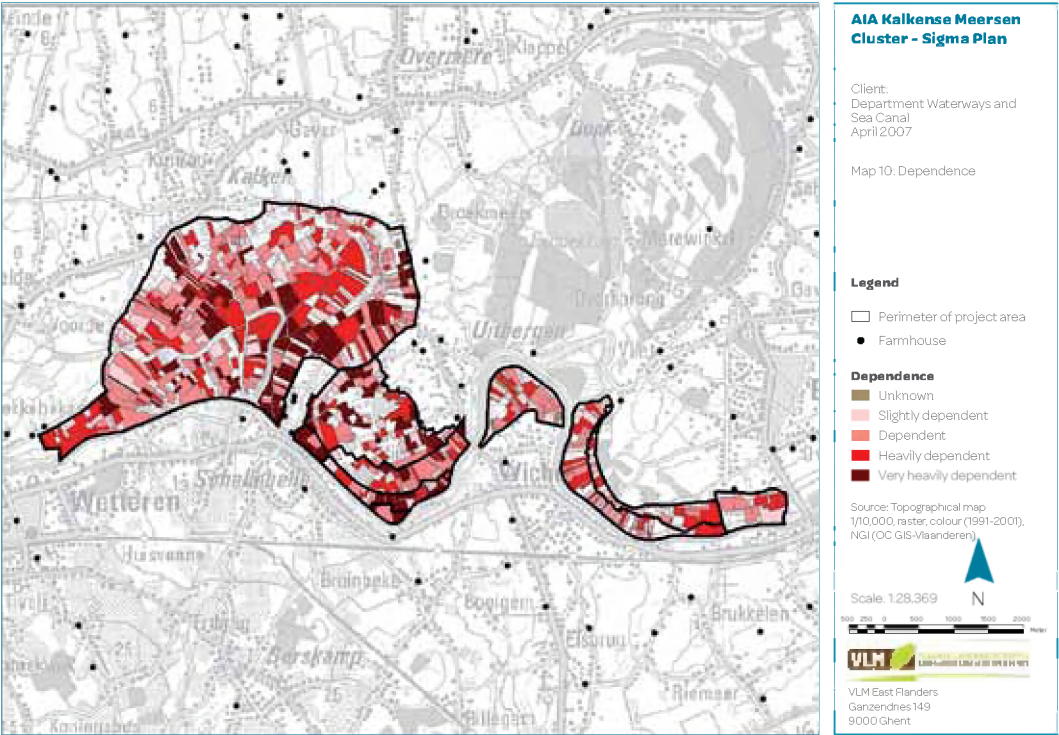


Figure 2.3. Dependence of agricultural plots in the perimeter of the project area as shown in the AIA

project perimeter. This measure can make a big difference for a farm, but also has a major impact on the project itself. Each perimeter adjustment (often a shrinking of the project perimeter) has to be tested against the safety and nature objectives. In a number of cases, a removal can be offset by extra extensions to the project perimeter. In the Kalkense Meersen Cluster, the perimeter was adjusted significantly in favour of five farms. In net terms, the project shrank by around 25 ha (2.5%).

No perimeter adjustments were possible for Bergenmeersen because the area had already been dyked as an FCA in an earlier phase. The borders were therefore already established.

Land bank and land exchange

The VLM was tasked with setting up a land bank with the aim of acquiring land that could subsequently be made available as exchange land. However, pressure on the land in the region is great. This is due to advancing urbanisation, hobby farmers (e.g. horse owners) and intensive land use in a number of sectors (e.g. arboriculturists and farmers themselves). The effect of the land

bank is therefore rather small. The land bank managed to acquire far less land than the area to be expropriated. The land from the land bank was assigned to those farmers most affected, taking into account their age, absolute loss (in ha) and relative loss (in %), using a formula for apportionment.

Financial incentives

A number of financial incentives were developed to make the voluntary acquisition of land by the land bank possible. Both owners and users of land can utilise these incentives.

There is a reinvestment allowance of 20% for the owner. This compensates for the notarial fees associated with investing in new land.

For the user, there is – besides the standard freehold purchase allowance – a leaver's incentive of 2,000 euros per ha in the case of an amicable freehold purchase. This is a new incentive developed specifically for the Sigma Plan in connection with the flanking agricultural policy.

Farm relocation

The most radical measure is the relocation of a farm. This can be applied if the farmer

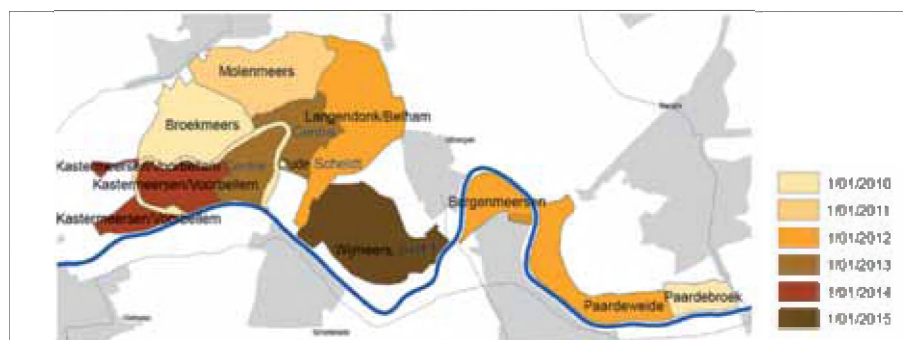


Figure 2.4. Phasing according to the GRUP

can demonstrate that the project affects his or her business to such an extent that it can no longer be viable.

One farm in the Kalkense Meersen Cluster was relocated. This freed up a significant number of plots in the project areas, as well as a number of plots of exchange land. The process was fairly difficult, and it became clear that the methodology for the “farm relocation” measure had not yet been fully worked out.

Following this case, a protocol for relocating farms was subsequently drawn up. This protocol describes the conditions the departing farmer must satisfy and what compensation the responsible authority must provide in return. The protocol will be incorporated into other major projects of the Flemish Government.

Phasing

Because of the scope of the updated Sigma Plan, it is impossible for all expropriations in a project area to take place simultaneously. This process takes several years. This means a certain amount of control is possible: some plots are needed straight away (e.g. for building dykes), while other parts can be expropriated and purchased at a later time (the bulk of a flood area). Thanks to this phasing, a number of farmers gain several years’ respite.

The Kalkense Meersen Cluster was the first area for which such phasing was introduced. The phasing was incorporated into all relevant processes, including the GRUP. As a result, some farmers gained five years’ respite. Given the age of the farmers, that is a significant intervention.

Service covenants

The Flemish Government’s decision on the updated Sigma Plan also included the development of “service covenants” for affected farmers. This new instrument was further developed and applied in the Kalkense Meersen Cluster. It is an entirely new idea within the flanking agricultural policy.

The measure includes a transitional arrangement, with a twofold objective. Firstly, it is assumed that the farmer needs a certain amount of time either to adapt his business or buy other land with the money from the freehold purchase. A transitional arrangement is therefore desirable.

Secondly, within the context of nature development and apart from one or two exceptions, attempts are made to make the soil poorer (“diminishment”). The desired types of nature only develop in circumstances where the concentrations of nitrogen and phosphorus are much lower than on intensively managed agricultural plots. Nature development is therefore preceded by diminishment management. Here, too, a transitional arrangement is desirable.

The diminishment is achieved through mowing management (the cutting of grass). Once fertilisation is stopped, production is then expected to drop. The “sweet spot”, where for nature management the diminishment is taken far enough to initiate specialised management, coincides with the time at which the yield for the farmer becomes sub-economical. It is estimated that this happens after approximately five years.

Based on that starting point, affected farmers are offered an extension on the use of their

plots for a period of five years. Mowing management is imposed with the aim of removing as much plant material as possible from the plot. In return, there is a limited financial compensation of up to 355 euros per ha per annum (or 1,675 euros per ha over five years).

This measure has been very successful in the Kalkense Meersen Cluster, but is not being applied in Bergenmeersen. This is because the area is being developed as an estuary, with no room for mowing management.

Ease of payment

Farmers who lose land they formerly leased can offset that loss by buying new land. However, the amount they receive for the leasehold purchase is less than the cost of a new, equivalent plot of land. This means the farmer is forced into making an extra investment. This investment is partly offset by an “ease of payment” scheme (low interest, deferred payments).

Lease acceptance incentive

Another measure developed in connection with the Sigma Plan is the lease acceptance incentive. This incentive is paid to owners of free land who are willing to accept a tenant. This measure encourages tenant farmers to relocate. The allowance is the same as the leaver’s incentive (2,000 euros per ha). In this case, however, no leaver’s incentive is paid (the tenant farmer is relocated, but does not lose any land). The measure does not therefore cost any extra.

In practice, however, little use is made of this measure. This is probably because little lease-free land is available, due to the demand for land.

Compensation for loss of production

Farming remains possible in a limited number of project areas, for example in an FCA with no specific nature objectives. The frequency of flooding is low (from once to twice a year to once every 50 years). In addition, these FCAs are generally active in the winter period. In that case, the agricultural activity is largely unhampered. Compensation is paid for any damage suffered.

2.5 Procedures and participation

Various steps are required to implement the projects of the updated Sigma Plan on the ground. Sections 2.1 and 2.2 describe how and with what parties the land use plan was drawn up that gives substance to the objectives in relation to safety and nature. That land use plan formed the cornerstone of an initial, informal phase. After all, up to that point, no formal procedure had been begun or completed.

In a second phase, various formal procedures were followed:

- production of an environmental impact assessment (EIA),
- production of a regional spatial implementation plan (GRUP),
- production of an expropriation plan,
- application for an urban development permit.

Participation is possible in each of these procedures. This means that the point at which the public can inspect the plans and also knows when participation is possible is laid down in law. In addition, Waterways and Sea Canal and the Agency for Nature and

Forest have produced project brochures and project newsletters to provide regular information about the planned project and the current situation. Each formal participation was also complemented by an accessible info market for the general public.

The environmental impact assessment mapped the project's expected environmental impact. In accordance with the EIA procedure, the notification was made available in June 2008 for inspection at the municipal authorities. The aspects to be investigated and the methodology used for each discipline were also described. After the period of participation, the EIA Service of the Flemish Government bundled the advice and comments from the public together into guidelines. Based on these guidelines, the team of EIA experts produced the actual EIA. The EIA was approved by the EIA Service on 11 June 2010. The GRUP adapts the legal purpose of the Kalkense Meersen Cluster, so that the land use plan can be implemented. In accordance with the law, the preliminary draft RUP (spatial implementation plan) was submitted to all government bodies involved for advice. The draft RUP was subjected to a public inquiry (June-August 2009). During that public inquiry, an info market was organised on 19 June 2009. The RUP was finalised by the Flemish Government on 26 March 2010.

The technical aspects of the various interventions of the land use plan, which formed the basis for the environmental impact study and the spatial implementation plan, were subsequently developed further. Based on that technical design, an application was made for an urban development

permit (25 June 2010). A public inquiry was also held, and an info market for the general public was organised on 17 June 2010.

The expropriation plan for Bergenmeersen was published in the *Belgian Official Gazette* on 23 January 2008. In April 2013, Waterways and Sea Canal had acquired almost all the plots in Bergenmeersen. After the urban development permit for Bergenmeersen was issued (4 February 2011), preparations for carrying out the work could begin. Thus, a specification for carrying out the work was drawn up and a call for public tenders was issued in 2010. In 2012, the work was assigned to the contractor Herbosch-Kiere from Antwerp.

2.6 Flanking recreation policy and less nuisance

During the various participatory sessions, both the public and local authorities raised a number of weak points. Solutions to these points were sought during the planning phase of the project. Aspects of better recreational services and mitigating measures for the public were both considered. The chosen solutions often appeared to encompass aspects of both problems. They are therefore dealt with together here.

2.6.1 Mosquito ridge

For its organisation as an FCA-CRT, the land had a profile in which the lowest-lying parts were located close to the ring dyke. With these land conditions and an operational CRT, the deepest water would be close to the ring dyke and therefore close to homes. If pools were left behind between tides, these could become breeding grounds for

mosquitoes. This seemed to be a genuine fear for several people from the neighbouring area.

This was addressed by extensively altering the land profile of the FCA-CRT. Stagnating water by the ring dyke was avoided by creating a raised zone against the toe of the dyke. This structure was quickly named the “mosquito ridge”. The mosquito ridge is sufficiently high so that it is only flooded during the most extreme tides. Stagnating water by the dyke is thus a thing of the past. As a result, the homes are further from the water and the threat of mosquitoes has been removed.

2.6.2 Supply of earth during the work

The reinforcement of the existing ring dyke to Sigma standards involves raising and widening the dyke. To do so, a large amount of construction material (sand, heavy soil) is needed. Transport by road with many hundreds of lorry journeys would place a severe burden on the surrounding villages, and local authorities lodged protests against it. The construction of an extra mosquito ridge made the problem even worse. A request was made to make as much use as possible of transport by water or obtain soil locally to avoid transport by road.

The solution was found in the creation of the onset of a creek system (see Figure 4.3). A channel was dug by the CRT sluice that can serve as main creek when the CRT is operational. Digging such a creek onset facilitates the outflow of the water and promotes the establishment of a pattern of creeks. Excavating a broad, deep channel

could provide a large volume of soil and avoid road transport.

However, the archaeological study revealed that a number of zones in the area should be better saved because of the presence of artefacts (see Chapter 5). As a solution, a creek onset was designed with a western and eastern branch. The archaeologically sensitive parts of the area were thus avoided. The western channel was dug broad and deep, allowing as much construction material as possible to be obtained for the creation of dykes and the construction of the mosquito ridge.

2.6.3 Walking infrastructure

Together with the design of the stream source, thought was also given to the area’s accessibility. Experience with the Lippenbroek trial project teaches us that, on the one hand, a working CRT sluice has a high amenity value for passers-by. On the other hand, local residents indicated that



Figure 2.5. The walkway in Bergenmeersen with bridge over the eastern stream arm

they perceived the view to be had from the raised ring dyke into their homes and gardens as a breach of their privacy.

A plan was drawn up for the recreational aspect, in which all forms of recreation were kept away from the ring dyke. However, walking and cycling on the overflow dyke remain possible, and is being strengthened.

A walkway was planned in order to make the area accessible to walkers. This follows the eastern stream from the eastern corner of the FCA-CRT (link to Wichelen churchyard) to the CRT sluice and crosses the eastern stream via a bridge. Opposite the sluice, the walkway opens onto a platform; from there, the incoming water can be observed and there is a panoramic view of the CRT (see Figure 3.9). Recreation is therefore concentrated around the CRT sluice and the eastern stream. This creates the necessary quiet in the centre of the area for any breeding or foraging birds, which in turn could act as a new magnet for bird-lovers (see Chapter 8).

The walkway was designed to be wide, and creates a monumental impression. It is also accessible to wheelchairs from Wichelen. Very soon after the walkway was built, it seemed to be greatly appreciated by the local population, birdwatchers and the municipal authorities of Wichelen. Thanks to its unique character, the FCA-CRT can be an added attraction for the municipality. In time, a learning path will be created here, with information about the area's nature and safety functions. A bird-watching hide is also one of the options.

2.6.4 Cycling infrastructure

The overflow dyke forms part of recreational routes along the Scheldt, but is also heavily used as a functional link-up between Wichelen and Wetteren, for example by children going to and from school.

The link with the N416 did not exist before the reorganisation as a CRT; bicycles had to be pushed up a steep set of steps. This created a serious bottleneck for cycling traffic.

The construction of the new ring dyke provided a new cycle ramp, so that the road along the Scheldt now joins the N416 at Uilbergenbrug. This is a considerable improvement for cycling through-traffic. In time, an uninterrupted cycling link will be created on both the left and right banks for functional and recreational purposes.

2.6.5 Trash screens

The Scheldt contains floating material of varied origin: reed stems, branches and unfortunately also rubbish (plastic). Most of this material is not wanted in the FCA-CRT. Branches, for example, can block the sluices and affect the operation of the CRT. For safety's sake, they must be kept out. Local residents also indicated that they found floating plastic and other "pollution" to be a real nuisance. They did not want a "trash can" at their back door.

Trash screens were therefore fitted to both sides of the sluice. The width of the openings is a compromise that took account of the need to hold back the rubbish, avoid blockages and allow fish to pass through.

2.7 References

- **Brochure Onteigening (2009)** (Expropriation Brochure) (2009) / www.sigmaplan.be/nl/files/download/Ontheigeningen.pdf
- **Brochure Flankerend Landbouw-beleid (2010)** (Flanking Agricultural Policy Brochure) (2010) / www.sigmaplan.be/nl/files/download/Brochure%20Flankerend%20landbouw-beleid.pdf



Figure 2.6. Recreational plan for Bergenmeersen