

CONSIDERATION DOCUMENT

Draft action programme in execution of the
Nitrates Directive 2015-2018 / 01/06/2015

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1 COURSE OF THE PUBLIC INQUIRY

1.1 PROCEDURE

In execution of the European Nitrates Directive (91/676/EEC), the Flemish government drew up a draft 5th Action Programme (MAP5) for the period 2015-2018. This action programme comprises measures to reduce the pollution of water by nitrates and prevent further pollution.

Together with the accompanying Strategic Environmental Assessment on plan level (plan- SEA), the draft action programme was subjected to a public inquiry from 6 March 2015 to 4 May 2015. The draft action programme and the plan-SEA were placed on the website of the Flemish Land Agency (VLM - "Vlaamse Landmaatschappij") on 6 March 2015 (www.vlm.be). During the period of the public inquiry, everyone could consult the texts in digital form and make comments about them using a digital public participation form on the VLM website. The public inquiry was held completely digitally. The public participation form was organised in such a way that the participation could be submitted structured, based on 10 items, in accordance with the main topics of the draft action programme. On submission of the participation, each submitter was sent a confirmation mail with an overview of their participation.

The public inquiry was announced in a mail sent to every city, municipality, and advisory body that was consulted within the framework of the plan-SEA (other administrations and provinces). The announcement mail was also forwarded to the members of the agricultural platform¹ and Monitoring Committee Manure Action Programme (OMAP - "Opvolgingscommissie Mestactieplan")². Cities and municipalities were asked to announce the public inquiry on their own website and provide a link to the VLM website with the public participation form. The choice to set up the public inquiry in the form of a digital public participation form was fine-tuned in advance with the Association of Flemish Cities and Municipalities (VVSG - "Vereniging van Vlaamse Steden en Gemeenten"). Citizens who did not have a computer with Internet access at their disposal, were referred to their local public library. The public inquiry was announced in the general press (*Standaard* and *Het Laatste Nieuws* newspapers) and the specialised press.

After the public inquiry, the participation reactions were processed and a consideration document was drawn up. The consideration document contains not only the results of the public inquiry but also the amendments made to the draft action programme following the public inquiry.

After the public consultation, a final action programme was drawn up. It was translated into a proposal for a decree that was approved by the Flemish Parliament and confirmed by the Flemish Government.

1.2 INFORMATION MEETINGS AND PROVISION OF INFORMATION

VLM organised an extensive information session for information providers. They are all the professional groups involved, such as consultants, manure processors, manure transporters, mixed feed producers, practice

¹ The agricultural platform is a periodical consultation platform of the Manure Bank and the agricultural sector (agricultural organisations and other stakeholders such as the animal feed sector, manure processing sector, agricultural consultants).

² OMAP is a consultation forum where agricultural and environmental organisations, assisted by civil servants and experts, can exchange ideas about the execution and evaluation of the Manure Action Plan (MAP). In addition, it creates the possibility to let both groups make recommendations to refine the measures already taken or to prepare for policy measures yet to be taken.

centres, etc. These professional groups act as information providers between the government and the agriculturalists and horticulturalists. Specifically informing the information providers, who in turn will disseminate the information amongst the agriculturalists and horticulturalists, achieves a multiplier effect. The information meetings were held in Hasselt on 22 April 2015 and in Bruges on 27 April 2015.

The information meetings consisted of a presentation that clarified the background, objectives, and measures of the draft action programme. In addition, it was made clear that the final action programme can still be amended where necessary on the basis of the results of the public inquiry. In total, some 190 information providers attended the information meetings.

In addition to the information meetings at the initiative of the Flemish Land Agency itself, the VLM was regularly also invited as a guest speaker at various information meetings, organised by agricultural organisations and other interest groups.

1.3 OTHER CONSULTATION

On 26 March 2015, the draft action programme was presented to the OMAP (Monitoring Committee Manure Action Programme). On 27 March 2015, an explanation of the draft action programme was given to the SALV (Strategic Advisory Council for Agriculture and Fisheries). The explanation of the draft action programme was given by the VLM.

2 PARTICIPATION REACTIONS PUBLIC INQUIRY

2.1 SUBMITTERS

From 6 March 2015 to 4 May 2015, anyone could consult the draft version of the 2015-2018 action programmes and formulate comments. The Flemish Land Agency received a total of 101 recommendations. The recommendations usually consisted of several reactions. In total some 800 reactions were formulated. The reactions came from various areas: agricultural organisations, environmental organisations, coordinated organisations, citizens, the manure processing sector, research institutes, etc. all formulated their recommendations in reaction to the text. Around 33 % of the recommendations submitted came from organisations and 67 % from private individuals. An overview of the number of recommendations per type of submitter is shown in Table 2.1-1.

Table 2.1-1 Number of recommendations per type of submitter in the public inquiry

Type of submitter	Submitter	Number of recommendations
Private individual	Farmer	38
	Citizen	30

Organisation	Agricultural organisation	4
	Environmental organisation	7
	Drinking water companies	2
	Practice centres	7
	Others	3
Industry	Companies	5
Government	Cities and municipalities	2
	Government bodies	1
Advisory council	Mina council, SALV	2
Total		101

Around 2/3 of the recommendations came from private individuals, namely farmers and citizens. The recommendations provided very different reactions. Those made by the citizens involved a large number of reactions concerning organic farming.

Twenty-three recommendations were submitted by various organisations. About one third of the 23 came from environmental organisations, another third from experimentation centres. The other recommendations were formulated by agricultural organisations, drinking water companies and associations representing various sectors (manure processors and other NGOs).

Comments were also made about the draft action programme by trade and industry. The majority of the companies come from the food industry.

Two municipalities and one government body (OVAM) formulated a recommendation. These reactions concerned nitrogen fertilisation standards, organic livestock manure and vegetable farming (municipalities) and soil pollution (OVAM).

The Mina council (Environmental and Nature Council of Flanders) and SALV (Strategic Advisory Council for Agriculture and Fisheries) each made a detailed recommendation.

2.2 TOPICS

During the public inquiry, reactions were formulated on various topics. The recommendations were divided into various topics using the digital public participation form.

An overview of the number of reactions per topic can be found in Table 2.2-1.

Table 2.2-1 Number of reactions per topic

Topic	Number of reactions per topic
Water quality	50
Focus farms	74
Nitrate residue	51
Nitrogen fertilisation standards	84
Phosphorus fertilisation standards	217
Horticulture	17
Control and enforcement	61
Other	212
Plan-SEA	38

3 RESULTS OF THE PUBLIC INQUIRY

3.1 METHOD

All the participation reactions were classified by topic via the digital public participation form. Each topic comprised various subjects. All the reactions with the same subject were placed in the same cluster and processed. This consideration document considers all the clusters so that all the reactions that are in a certain cluster are also discussed.

3.2 PARTICIPATION REACTIONS THAT LEAD TO AMENDMENTS TO THE DRAFT ACTION PROGRAMME AND THE MANURE DECREE

Processing the reactions from the public inquiry leads to a number of amendments to the draft action programme and as a result also the Manure Decree. These amendments were transferred to the European Commission and have been included in the proposed decree amendment that translates the action programme into Flemish legislation:

- In the course of various action programmes, the period permitted for spreading was changed and tightened. Changes related to specific fertilisers, types of soil, types of crop and circumstances so that the consistency of the existing spreading regulation was sometimes lost. The changes to the spreading

regulation for focus farms and the closed period for effluents planned in the current action programme, will cause further differentiation of the spreading regulation and will make it even more complex. The action programme announced a **harmonisation of the spreading regulation**. This harmonisation was concretely elaborated in the proposed decree amendment. The principle of the harmonisation is that the same rules apply with regard to the application period and method for fertilisers with similar properties and similar behaviour, regardless of whether they come from livestock manure or other organic or mineral sources.

- According to the strengthened spreading regulation for focus farms as stipulated in the draft action programme, focus farms that sow **early horticultural crops** cannot fertilise them with mineral fertiliser during the period from 15/02 to 01/03. During the public inquiry, the question of making an amendment to this was raised. Since the idea is that the amended spreading regulation counters the use of fertilisers at the wrong time and not to make the cultivation of certain crops impossible, this will be taken into account for the amendment to the decree.
- The organic sector asked that grass-clover and leguminous crops be included in the list of catch crops in the Manure Decree. Since leguminous crops fix nitrogen from the air, they do not have any impact as a 'catch crop'. However, the combination of grass with clover leads to symbioses so that the green cover develops well so that in the end more nutrients will be absorbed from the profile. This can be an (organic) alternative to the application of fertilisers (both organic and mineral) to the stubble. So the inclusion of **grass-clover as a catch crop** will be added to the amendment to the decree.
- The possibility to repay P analyses which show that the soil is class I and class II will be included in the Manure Decree.
- It is indicated that the ban on applying fertilisers after 15/8 for focus farms jeopardises the yield and quality of mown grass. That is why the action programme for focus farms (category 1) has the possibility of applying mineral fertiliser to **grassland until 1/9** so that sufficient directly available nitrogen can be applied for a last good-quality mowing. This possibility will be provided in the Manure Decree for all **type 3 fertilisers** (these are fertilisers with a 100% working coefficient) which means that for effluents on grassland, at focus farms the same regulation will apply as for mineral fertiliser, which is also an element of the action programme. This amendment also ties in with the principles of harmonisation of the spreading regulation.
- The suggestion of providing the possibility of a deviation from the closed period as a result of **exceptional weather conditions** is being included in the amendment to the decree (this possibility currently only exists for sowing the catch crop).
- An amendment was requested of the closed period and the conditions for the **on-field storage of farm yard manure**. An amendment is foreseen of the legislation for the storage on the field of farm yard manure outside the closed period so that manure, prior to being spread, may be stored for two months (instead of 1 months as is the case in the current legislation). An amendment of the closed period must be further investigated (see 3.3).
- An amendment was requested of the **excretion standards for suckler cows** on the basis of the results of recent scientific research. This amendment is being included in the amendment to the decree.

3.3 RECOMMENDATIONS KEPT FOR THE SUBSEQUENT PHASE

The recommendations also include a number of recommendations or subjects that do not lead to an amendment to the draft action programme and the Manure Decree, but are being considered in the further elaboration of the scientific research, in the functioning of the administration and in any later possible amendments of the manure legislation. An overview of the main elements that are included in the subsequent phase, is given per topic.

3.3.1.1 Water quality

The request is made to include the suggestion of the plan-SEA with regard to monitoring the water quality in **vulnerable drinking water extraction sites** by means of an annual trend analysis. This will be followed up further.

Further research is requested into the origin of the water at **two specific MAP monitoring points in Voeren** (149100 and 153400). Partial evaluation has already been carried out by VMM in collaboration with CVBB, which shows that the hydrogeology (underground water transport) in Voeren is more complex than in other areas of Flanders. VMM (Flemish Environment Agency) indicates that the recent and historic agricultural activities must be further investigated.

For the demarcation of the focus areas, the request is to consistently categorise all the **sub-HHZ areas with poor groundwater quality** as a focus area. The focus areas are demarcated every year on the basis of the measuring results of the surface waters or groundwater. Areas where the standard of 50 mg nitrate per litre in surface water is exceeded or where the evolution of the nitrate concentration in the groundwater is not making sufficient progress, will be defined each year as a focus area. The rules guiding the decisions for demarcating the focus areas are recorded in consultation with all the stakeholders within the monitoring committee Manure Action Programme (OMAP). The criteria for this demarcation are carefully considered and where necessary adjusted on the basis of new insights. The final demarcation is regulated by means of a decision by the Flemish government.

More **transparency about the functioning of the CVBB** is requested (specifically with regard to the formulated amendments to the MAP monitoring network). Another request is to create more support amongst environmental and nature movements. The CVBB is not authorised to make changes to the MAP monitoring network but can make a few suggestions for adjusting certain monitoring points to the VMM who will then evaluate them. However the suggestion for more transparent functioning of the CVBB is being included.

More research into the cause of the high nitrate concentrations at MAP monitoring points affected by **nitrate-rich sources** is requested. In the case of nitrate-rich sources, both the surface water and the groundwater compartment are characterised by concentrations of nitrogen that are too high. Measures to improve the water quality are necessary to make the quality of both the surface waters and the groundwater acceptable. It will be reviewed whether further research is necessary.

3.3.1.2 Nitrate residue

The suggestion of including a **calculation module** so that farmers can calculate the evaluation of the nitrate residue measurements at farm level for themselves, will be included in the further execution of MAP5.

3.3.1.3 Phosphorus fertilisation standards

Measures in the area of *combating erosion* and *fertilisation free zones along watercourses* come out of the public inquiry as *'quick win'* measures that can be taken in certain areas to reduce the leaching of phosphate. The Flemish government approved a package of erosion measures in 2014. Compliance with them is linked to the conditions in the Common Agricultural Policy that is imposed on farmers in order to obtain European support. These measures with regard to combating erosion are currently being evaluated so that it is pointless at this moment to include additional measures in the Manure Decree. Their integration is being monitored. In addition, within the framework of PDPO III, 'Erosion control' management contracts can also be entered into with the VLM for parcels susceptible to erosion. What is more, MAP5 pays a lot of attention to sowing green covering, which has a positive effect on erosion. On steep slopes, fertilisation has also been regulated in the Manure Decree and it must be done with adapted techniques to avoid being washed away as much as possible.

With regard to the fertilisation free zones adjacent to watercourses, in the coming planning period, the environmental impact of various distances combined or not with techniques for the precise application of fertilisers will be examined. Harmonisation of the distance rules between the Manure Decree and the Integral Water Policy Decree can be carried out on the basis of the results of this research.

To fill the knowledge gap with regard to *phosphate extraction* departing from the soil system as a whole *with respect for biological principles*, this suggestion will be passed on to the research platform for sustainable fertilisation so that they can include this research question in their vision paper.

Furthermore, a number of research questions are asked with regard to phosphorous, that are the subject of *scientific research into phosphorous that recently started up*. The VLM commissioned a research project into the use of phosphorous in agriculture. This study must examine amongst other things the different P soil tests and earmark the best one or the best combination for the Flemish conditions. The ammonium lactate extraction method is the P soil test that most labs and farmers have experience with. In addition, the connection between stricter measures with regard to phosphorous and the objectives of the Water Framework Directive will be scientifically researched.

3.3.1.4 Horticulture

The suggestion to exempt the *additional fertilisation of Brussels sprouts* towards the end of the cultivation season from compulsory sampling will be evaluated during the planned review of the implementation decision by the Flemish government on horticulture. After all, it is cited that it is necessary to give Brussels sprouts additional fertiliser after 1 September to stimulate growth, but that the sampling to draw up a fertilisation recommendation is difficult to carry out at that time.

The *sampling depth for horticultural crops* is stipulated in an implementing decision by the Flemish government. For this, balance has been sought between good differentiation on the basis of root depth and the growth phase on the one hand and avoiding all too much complexity of the legislation on the other hand. On reviewing this implementing decision, the sampling depths can be evaluated on the basis of scientific substantiation.

3.3.1.5 Other

Small farms with great diversity on a small surface area are being confronted with a relatively large number of samples. A specific approach for these farms is being taken into consideration when drafting the decisions of the Flemish government.

The request for **coordination between sampling and measures within the framework of different pieces of legislation** will be included. Proper coordination and integration is being strived for.

The suggestion of discussing **mixtures of fertilisers** at the consultations with the Ministry of Health, Safety of the Food Chain and the Environment is being included. The use of different types of fertilisers within Flanders must meet all the required legislation. To this end it is important that mixtures of fertilisers can be traced and inspected. This is being further examined.

Furthermore, a number of questions are asked with regard to elements that have already been studied or will be studied. For a number of other elements, recommendations are formulated with regard to **scientific research**:

- An adjustment to the fixed content values of manure is requested. The fixed values for manure composition are derived on the basis of the available results of manure analyses carried out in Flanders. Due to the feeding techniques and types of shed used, each farm's manure has a unique composition, which may or may not deviate greatly from the set values. It is recommended to regularly carry out a manure analysis, so that representative values for manure flows from the farm can be worked with. There is already a pilot study ongoing to determine a **set farm value** in order to deal with the problem of manure composition. The possibility is being examined of determining a representative manure composition at farm level, that can then be used for fertilisation at the own farm, but also for the removal of manure to other farms and for manure processing. The legislation can be amended, depending on the results of this study.
- A number of **manure treatment techniques** within the framework of the improved valorisation of nutrients (in order to arrive at a better phosphorous-nitrogen ratio in livestock manure) will be evaluated in a research project with an eye to both the economic feasibility and the environmental and agronomic results. In the public inquiry the techniques that will be examined in the 'agronomic value' project are asked after. These techniques are separation, separate shed constructions, mixing types of fertiliser, acidification, pocket fermentation, farm composting.
- Furthermore, the sustainable use of digestate will be stimulated. And it will be examined whether the **pro rata system**, in which only the fraction of the digestate that corresponds with the fraction of the livestock manure in the input of the fermentation process is deemed livestock manure, can be elaborated. Central in this pilot study is monitoring and labelling these products to enable proper tracing as well as determining the environmental impact of the use of digestate in everyday operations. In function of the results of the examination of the pro rata system, if necessary a review of the working coefficient of digestate as an alternative fertiliser can be carried out. Vlaco's suggestion to be a party to elaborating a pro rata system for nutrient recuperation is being included.
- Other pilot studies are ongoing to determine under what conditions **on-field storage of farm yard manure** might be possible during the winter period (e.g. placing a layer of straw under the storage, covering with a semi-permeable cloth, etc.). If the results of this research are positive, the necessary amendments can be made as long as the European Commission gives approval.

- Different **subjects for new research projects** are presented (including fertilisation free zones along watercourses, the relation between P-fertilisation and the phosphate content of surface waters, impact of erosion on the nutrient contamination of surface waters, etc.). To improve the water quality of the surface waters and groundwater, every year research projects are started or continued. The suggestions are being passed on to the research platform for sustainable fertilisation so that they can include research questions in their vision paper.

3.3.1.6 Plan-SEA

To meet the concern of the organic farming sector and elaborate the suggestion from the plan-SEA of an alternative fertilisation system, a start will be made on mapping the phosphate situation of the parcels used in organic farming.

3.4 PARTICIPATION REACTIONS THAT DO NOT LEAD TO AN AMENDMENT TO THE DRAFT ACTION PROGRAMME OR THE MANURE DECREE

Finally, the recommendations also comprise a number of reactions that have not led to an amendment to the draft action programme and the Manure Decree. The reason for this is either that:

1. the subjects in question are contained in the current legislation or in the planned amendment to the decree or;
2. it is technically motivated why they are not included.

An overview of the most important comments is provided per topic.

3.4.1 **Contained in the current legislation or the planned amendment to the decree**

3.4.1.1 Water quality

A **firm approach** to achieving the water objectives is requested, above all for the basins that are still the furthest from achieving the objective. With the strengthened area-oriented and farm-based approach of MAP5, everything is being done to achieve the objectives. In addition, control of compliance with the action programme will shift further from administrative to on-site controls, with nitrate residue measurements and improved, specific risk analysis of the farms by means of farm assessment. The existing on-site controls of fertilising practices and other infringements with a direct impact on the environment are being kept and where necessary strengthened.

3.4.1.2 Focus farms

A request is received to consistently apply the **auto-control at farm level in 2015** (on the basis of the 2014 nitrate residue measurements) in order to avoid delay. MAP5 stipulates an auto-control at farm level in 2015 for all focus farms that exceeded the 1st threshold value in 2014, for non-focus farms that exceeded the 2nd threshold value in 2014 and for farms that in 2014 did not carry out their compulsory determination(s) of the nitrate residue. For these farms, the immediate implementation of auto-control is justifiable and necessary to get a definite answer about the cause of the exceeding of the threshold observed in 2014 on the inspected parcel.

The additional measures for focus farms do not comprise a limitation of the application of certain **types of fertiliser**, e.g. the use of the solid fraction of digestate and dried digestate thus continues to be permitted. It is stated that as long as the nutrients via mineral fertiliser cannot be monitored for 100%, **fertilisation reduction as a sharpened measure** will be difficult to inspect. However, MAP5 focuses strongly on the 100% registration of mineral fertiliser.

With regard to determining the **surface area for the compulsory sowing of catch crops**, permanent crops or permanently covered agricultural land is not taken into consideration.

3.4.1.3 Nitrogen fertilisation standards

The **low-emission use of livestock manure** to limit ammonia losses and odour nuisance is already provided for in the legislation. In addition, guidance services continue to focus on the support and sensitisation of farmers to increase the efficiency of fertilisation and to apply fertiliser at the right time with the right fertilisation techniques.

In MAP5 **fertilisation (for both N and P) are evaluated at farm level**. So on an individual parcel, a higher amount of nitrogen may be applied than the standard foresees for the crop in question, as long as it is not higher than twice the fertiliser standard. The condition for this is that the fertilisation space for nitrogen is not exceeded at farm level. Exceptions to this are the nature areas and groundwater catchment areas, where the fertiliser standard must be respected at parcel level.

3.4.1.4 Phosphorus fertilisation standards

Parcels for which the **P-availability is not known**, will **as of 2017 be categorised in class IV** to guarantee the highest degree of environmental protection. To give farmers the opportunity to take sufficient samples (adapted to their operations), a transition period is planned up to the end of 2016, whereby parcels that are not analysed will be categorised as class III.

For class I or II parcels, the **P fertilisation using farm yard manure and farm compost** (so also non-certified compost) is only charged for 50%.

3.4.1.5 Horticulture

As far as the **number of soil analyses and accompanying fertilisation recommendations are concerned**, a simple regulation is requested. The determination of *the number of soil analyses* for vegetables is regulated in an implementing decision of the Flemish government. In anticipation of this, the number of fertilisation recommendations is set at 1 recommendation per 2 ha; for multi-year ornamental crops at 1 per 6 ha. As an alternative to the compulsory taking of soil analyses with fertilisation recommendations, a system will be worked out with accredited guidance systems who offer a full range of support services.

The application of **mineral fertiliser in autumn** for horticultural crops also remains possible **for focus farms** on the basis of a soil analysis and fertilisation recommendation.

3.4.1.6 Control and enforcement

Firm control and dealing with the farmers who do not comply with the legislation are requested. Since the water objectives are not yet being met everywhere, it is necessary to take stricter measures in MAP5. Precisely because there are differences in the water quality between the regions and the farms, MAP5 focuses strongly on an area-oriented and farm-based approach. Focus farms who prove that they do not cause any negative

environmental impact can get an exemption to the stricter measures that apply to focus farms. In MAP5, enforcement will aim at farms that cause nutrient losses. The controls are now already based on risk analyses. In MAP5, the risk analyses will be further improved so that the controls will focus even more on the problem farms.

It is observed that farmers who work well should be rewarded. **Rewarding** farmers who work well has been included in MAP5 in the shape of getting an exemption from stricter measures that apply for focus farms. **Better monitoring of mineral fertiliser** is requested. With regard to the registration of mineral fertiliser, the action programme clearly has the intention of doing something about it. Through the digital exchange of data about the sale of mineral fertilisers to Flemish farmers, it is possible to cross-check the farmer's declaration. An article on a declaration by the producers of mineral fertilisers is also provided for in the Manure Decree. Ideally data will be collected about the use of mineral fertilisers by Flemish farmers at European level. In view of the urgency of achieving the European objectives with regard to water quality, it is not feasible to wait for a European regulation on this subject.

It is indicated that it is difficult to achieve an equilibrium in the **farm balance**. For this, it is important that in MAP5 the farm balance is no longer seen as the end but rather the start of a risk analysis. If the latter shows that a farm has a high risk of nutrient losses into water, a farm assessment will follow. During such a farm assessment, the consistency of the fertiliser balance is more important than perfectly balancing the individual nutrients.

Better control of the **closed period for effluents** in winter is requested. MAP5 already provides for a general ban on applying effluents from 15 November to 15 January and a ban on applying effluents from 1 September to 15 February for focus farms where control of the nitrate residue at farm level shows significant exceeding of the threshold values. In addition, the existing on-site controls of fertilisation practices will be kept in the new action programme and where necessary strengthened.

3.4.1.7 Other

It is indicated that MAP5 must contribute to improving the **organic matter content** in the soil. MAP5 comprises the improvement of the organic matter content in agricultural soil in addition to the improvement of the water quality. This amongst other things due to the use of fertilisers that contribute to stimulating the increase in the effective organic matter, such as farm yard manure and compost, by obliging the efficient N-system and by sowing green cover crops and leguminous crops (not only nitrogen but also carbon is supplied to the agricultural land). This contributes to improving the soil (central role in action programme).

The stimulation of possibilities for applying additional organic matter for **multi-year crops** is requested. Phosphate from compost and farm yard manure on class I and II soils and certified compost on all soils are charged for 50%, which offers opportunities for applying additional organic matter. Furthermore, MAP5 has a farm-based approach, so that additional organic matter can be applied in the year that multi-year crops are planted, if this is compensated by fertilising less on other parcels where multi-year crops were already planted a few years previously.

The continued exception for **spreading regulation on heavy clay soils in the polders** is requested. The exception rules with regard to the closed period for spreading manure in the polders will remain. For this, the specific conditions of the heavy clay soils, where it is not possible to work the ground in spring without risking structural damage to the soil, are taken into account.

In order to meet the request for sufficient and good **communication**, the VLM has already organised a number of information sessions (see 1.2). What is more, the VLM will organise a number of information sessions in the focus areas at the end of June 2015 and organise an extensive information campaign in the autumn of 2015. Apart from the information sessions, the VLM's Farm Advice department will assist the farmers with the transition to the farm-based approach and the use of the efficient N-system. The Farm Advice department will also make a calculation programme available for the farm balance (with which the manure balance can be simulated and a fertilisation plan and register can be drawn up) and an update of the 'efficient nitrogen' brochure (that will be made available on the VLM website).

3.4.2 Technical motivation for elements that are not kept for amendment

3.4.2.1 Water quality

It is indicated that **no additional measures are required** and that the evolution of the water quality is going in the right direction. However, due to the large regional differences, the water objectives of MAP4 were not achieved. So additional, regionally-oriented measures are absolutely necessary to achieve the water objectives set by 2018.

The reaction is received that the **stricter objectives for nitrate** that have been imposed by the **Water Framework Directive** in the operational monitoring network must be complied with. However, the environmental quality standard for nitrate ensuing from the Water Framework Directive that applies for smaller water systems in which the MAP monitoring network is located, is 11 mg N/l (44.3 mg nitrate/l) as the 90 percentile. This is very similar to the standard of 50 mg nitrate/l as the 95 percentile value ensuing from the Nitrates Directive. For most of the larger water bodies in which the operational monitoring network is located, an environmental quality standard of 5.65 mg N/l (25 mg nitrate/l) applies as the 90 percentile. In the larger water bodies, that different sectors have an impact on, evaluation occurs compared to this target.

It is stated that **soils rich in water** such as in flooded areas are not catalogued as vulnerable areas. Areas where on the basis of the measurement results a poor situation or evolution of the surface water or groundwater quality is observed, are included as a focus area. On the other hand, on-site controls of fertilisation practices and other infringements with a direct impact on the environment will be kept in MAP5 and strengthened where necessary.

It is indicated that there is no clear **correlation** between the **groundwater quality** and **recently applied agricultural practices**. However, depending on the distance to the monitoring point, there are short-term effects for groundwater, but also long-term effects if it concerns deeper monitoring filters. The quality of the shallow groundwater can be improved in the foreseeable future within the framework of MAP periods. Both the global evolution of the groundwater quality and the evolution in focus areas is showing improvement step by step, that the efforts of farmers are being rewarded to some degree.

With an eye to groundwater quality, more transparency is requested with regard to the **calculation rules for the evaluation of the groundwater quality**. The assessment of the groundwater quality occurs in accordance with the groundwater criteria, as stipulated in MAP4 and relates solely to nitrate. In the past this way of working was explained by a support document at OMAP and approved by the members present. The decision tree with the assessment and calculation steps for the demarcation of the focus areas is available via the OMAP members or directly from the VMM.

The request to put MAP monitoring points affected by **nitrate-rich sources** in a separate category is difficult to substantiate since there are an unknown number of MAP monitoring points that have good surface water

quality due to the influx of nitrate-poor source or seepage water. In addition, the MAP monitoring points are located in runoff areas of an agricultural nature.

The fact is criticised that a MAP monitoring point where only once per winter year a measurement shows that the nitrate standard of 50 mg nitrate/l is exceeded is evaluated as bad, whilst the **principle of the 95 percentile test** is applied to demarcate focus areas. However, the measurement results of the MAP monitoring network are processed and reported in accordance with the methods demanded by Europe, in line with the Nitrates Directive. The Nitrates Directive sets a 95-percentile test of the threshold values as a criterion, whilst for no more than 1 out of the 20 measurements a nitrate concentration of maximum 75 mg nitrate/l may occur. In Flanders, in principle samples are taken at the MAP monitoring points every month. This implies that as soon as one exceeding of the limit is observed, the monitoring point is evaluated as bad. Within the context of the demarcation of the focus areas, evaluation occurs over a period of two years. Since in principle 24 measurements are evaluated per monitoring point for this, the 95 percentile test can be applied.

High **concentrations of phosphorous** in surface waters required a sharpened approach, whereby the phosphorus fertilisation standards in MAP5 are adapted to the phosphorous availability in the soil. Reducing the concentrations of phosphorous in surface waters will take a lot of time and it must be evaluated over a longer period of time. The **GAP analysis** commissioned by the European Commission is made in the context of striving for good water quality, as imposed by the Water Framework Directive. The GAP analysis will check whether the measures taken until now are sufficient to achieve the good situation for phosphorous and within what period. Taking into account effects that do not occur until the long term, it is all the more important to evaluate the medium and long-term effects of the choices made in the near future, bearing in mind the increasing scientific knowledge on this subject. Thus, certainty can increase that the right measures have been taken, which will offer farmers more guarantees that their efforts will immediately have an effect. The **method for monitoring phosphorous** in surface waters is criticised. The VMM is accredited for determining orthophosphate in surface waters. This determination occurs in accordance with the compendium for taking samples, measuring and analysing water (WAC - standard WAC/III/C/002) and is based on the ISO standard ISO-15923-1.

Measures included within the framework of the Nitrates Directive are part of the basic measures of the **river basin management plans**. For their concrete elaboration in the Manure Decree and the accompanying implementing decisions, integration with other plans, such as the river basin management plans is strived for.

3.4.2.2 Focus farms

Inclusion of the **vulnerable surface water and groundwater extraction areas** in the focus area is requested. The MAP stipulates a ban on fertilization for type 1 protection zones of the groundwater catchment areas and areas where surface water and groundwater quality is not good or is not evolving well will be included as focus areas. In addition, the water quality in the vulnerable drinking water extraction areas is being monitored for an annual trend analysis (see 3.3).

Additional focus on farms located in or near to **wetland areas and valleys** is requested. However, in the areas defined valuable, zero fertilisation applies. The water quality management is furthermore regulated in other legislation. What is more, the water quality is not only affected by the wetland valleys and brooks, but also by other areas that run off towards a watercourse. Also, the Manure Decree has a specific spreading regulation that applies along watercourses. Lastly, MAP5 focuses on farms that have 50% of their surface area of agricultural land located in a focus area, since the water quality in the focus area is still not good (regardless of whether it concerns wetland areas or not). These farms become focus farms that get additional measures

imposed and their fertilisation assessed more strictly. Farms outside focus areas can also, after assessment of the nitrate residue, be deemed focus farms.

For the agricultural organisations it is difficult that **auto-control will be carried out at farm level in 2015** on the basis of the nitrate residue measurements in 2014. Since it is important with an eye to continuity, the 2014 results will be included for the parcel or farm assessment of the nitrate residue in 2015. This was a crucial element in the negotiations with the European Commission. However, due to the phased approach, measures will only be imposed after an evaluation at farm level. If a limit being exceeded in 2014 would not be taken into consideration, farms where a limit was observed being exceeded again on a parcel in 2015 not have to carry out a farm evaluation until 2016, so that the necessary measures would not take effect until 2017. So, the impact of these measures would not be noticeable until 2017. This would greatly jeopardise the impact of MAP5 on the water quality and hinder the objectives being met. That is why auto-control at farm level is already being introduced in 2015 on the basis of the nitrate residue measurements, thus avoiding the loss of a year.

The measures for focus farms are seen as **discriminatory**. Focus farms, located in a focus area, that can prove that their individual operations do not entail an increased risk of nitrate losses, can get an exemption for the additional measures. However, as a result the designation as a focus farm due to location in a focus area is not discriminatory.

In addition, criticism is expressed at the fact that farmers would become/remain categorised as focus farms due to small **violations**. The violations that prevent farms from getting an exemption are very strongly related to the quality of the environment and water and not new in the manure legislation (discharge, overfertilisation, violation of the closed period, fertilising flooded land, frozen land or land saturated with water, the use of manure in a non low-emission way and not respecting the distance to the watercourse). Even after a complete farm assessment, a sanctioned farm cannot obtain an exemption since the farm assessment shows that the operations are accompanied by serious environmental risks. So whether or not the focus farm category is permanent is entirely in the hands of the farmer.

It is observed that if a farmer gets an **exemption**, the **costs of nitrate residue determinations have to be repaid** because he was wrongly designated a focus farm. However, these farms located in focus areas will after the exemption have the advantage that they do not have to apply the additional measures.

It is observed that the **first threshold value** is too low. By sufficiently taking into consideration with the characteristics of the parcel and properly adapting the fertilisation to the needs of the crop, it is possible to respect the threshold value. **Applying the same threshold value for focus farms and non-focus farms** cannot become the general rule, since the environmentally substantiated value is 70 kg N and the value of 90 kg N is a deviation for non-focus farms.

The measures imposed on focus farms are all **environmentally relevant**: they either have a direct impact on the quality of surface waters and groundwater, limit leaching of nutrients, lengthen the period for uptake of nutrients or counter erosion. Limiting the spreading regulation is also environmentally relevant, since applying manure at the end of the fertilisation season negatively affects the nitrate residue in the autumn.

It is stated that the **ban** for focus farms on applying a **limited dose of organic fertilisers after the harvest as long as a catch crop is sown**, is disadvantageous since the catch crop requires a basic dose of fertiliser to develop properly and absorb a maximum amount of nutrients from the soil. Limit fertilisation after the harvest as long as a catch crop is sown is possible without major environmental risks if the dose is strictly respected and the catch crop can be sown on time and in good conditions. If these conditions cannot be met, and that can also be due to external factors (e.g. the weather), then there is a substantial risk of nutrients leaching. In

focus areas, where the water quality is still insufficient and where too much nitrate remains in the soil and leaches in the autumn, applying type 2 and 3 fertilisers after the harvest is not permitted since the risks cannot be contained.

Introducing longer closed periods for focus farms makes the **spreading regulation** more complicated than under MAP4. However, on designation as a focus farm, it is informed of this and also of the spreading periods that must be observed at the farm. In addition, harmonisation of the spreading regulation was provided for to make the spreading regulation simpler (see 3.4.1).

3.4.2.3 Nitrate residue

It is indicated that nitrate residue analyses can yield unreliable results, on the basis of which farms could be heavily assessed. **Variability in analyses and samples** is unavoidable and this is taken into account. In addition, it is precisely the farm assessment of the nitrate residue that will lead to better reliability as an instrument for the evaluation of the fertilisation behaviour. After all, the nitrate residue is determined on different parcels of a farm.

The suggestion of immediately having **nitrate residue controls carried out at farm level** instead of at parcel level is being discarded. The control pressure is now 40-50% which means that the nitrate residue on at least one parcel of every farm is inspected every 2-3 years. If the nitrate residue controls were limited to evaluations at farm level, then with the same resources this would lead to a reduction of the control pressure. The suggestion of **carrying out nitrate residue evaluations at farm level** instead of at parcel level **in basins where substantial progress still has to be made**, is also being discarded. Due to the increased presence of focus areas in these basins, the risk of a control greatly increases sample taking. The suggestion to organise the nitrate residue determinations of the Manure Bank at farm level instead of on one parcel in the focus areas, requires a shift of the financial resources and could be at the expense of achieving a sufficiently high control pressure.

The request to only use **nitrate residue measurements that are taken at the farmer's own initiative** to decide on whether or not to grant an exemption, but not to categorise farms in other classes, is being discarded. After all, it is assumed that farmer submitted these results because he assumed that his operations did not have any impact on the environment and therefore applied for an exemption. If it appears that this is not the case, then measures must be imposed.

A lot of samples are requested in order to get a global picture of the operations of a certain farm. That higher number of samples neutralises the consequences of choosing a particular parcel so that it is a good instrument for assessing the global farm operations. In addition, it is also important that the nitrate residue is determined for at least every important group of crops at a farm. After all, not every crop is susceptible to the nitrate residue threshold values being exceeded to the same degree. However the number of samples per farm is relatively limited. After all, the number is determined by the square root of the farm surface area which is rounded down.

With regard to **parcels with a small surface area**, only farms with auto-control at farm level must carry out a nitrate residue determination for all the crop groups, regardless of the surface area. All the crops in the table of the nitrate residue threshold values have been reduced to only 6 crop groups. This drastic regrouping means that in most cases the smallest parcels can be avoided.

With regard to the **evolution of the nitrate residue** over several years, it is observed that a class I farm is punished more harshly for the same result of auto-control than a class II or III farm. A class I farm that is evaluated as a class I year after year, keeps having a negative impact on the water quality. This can be due to

the fact that the farm does not apply the measures imposed or does not do so sufficiently. So it is necessary to sharpen the measures to achieve an improvement. A class III farm that the next year is evaluated as a class I, shows clear improvement. The measures that this farm has to apply can then also be adjusted. Measures are imposed on a farm initially on the basis of the nitrate residue measurements at farm level, but the progress a farm is making is also taken into account.

MAP5 no longer imposes **compulsory samples in spring** as a result of a too high nitrate residue in the past year. For this, the point of departure is an enhanced empowerment of the farmer for the specific customised fertilisation of the crop, taking into account the characteristics of the parcel. What is more, a well developed advice system for farmers can be called on. In other words, the nitrate residue is an obligation of result whereby the farmer can determine in which way he will fulfil it, with or without the aid of professional support.

Special circumstances (exceptional weather conditions, crop failures, etc.) are taken into account. Farmers can invoke this in their objection to the measures imposed as a result of a nitrate residue that is too high.

3.4.2.4 **Nitrogen fertilisation standards**

Intensification of the nitrogen policy is requested. The ensemble of measures in MAP5 must contribute to achieving the water objectives. The approach really is being intensified by means of an area-oriented and farm-based approach. The nitrogen standards strive for balanced fertilisation, so that leaching to surface waters and groundwater is limited. The spreading period is limited in such a way that fertilisation occurs in the period that the plant needs nitrogen the most and so uptake is the highest. A smaller application of nitrogen is thus not required since this leads to a reduction in the crop yield.

It is indicated that a further **limitation of fertiliser standards** will only lead to a fall in production without seeing any major progress in the MAP monitoring points. However, the nitrogen fertilisation standards are based on a balance between minimum losses of nitrogen to the groundwater and surface waters and optimum yields. This was proven by scientific research (D'Haene et al, 2014). With regard to phosphorus fertilisation standards, the generic system (of MAP4) has been further refined, taking into account the plant available phosphorous in the soil (by categorising into 4 classes with corresponding fertiliser standards). Taking these standards into account, the water quality is expected to improve.

Higher fertiliser standards are requested for **livestock manure**. It is possible that if use is made of organic manure, the N/P ratio of the manure in combination with the applicable phosphorus fertilisation standards does not allow the maximum nitrogen application to be completed using livestock manure. A possible solution for this is to process the livestock manure in such a way, for example through separation, that the N/P ratio is better adapted to the crop needs and the best use can be made of livestock manure.

In addition, a **higher N fertiliser standard for some crops** is requested without a negative impact on the water quality. However, if farmers can prove that their nitrate residue at farm level is OK, they can apply for a higher N fertiliser standard. The increased N fertilisation is limited to 10%, since higher fertilisation would reduce the efficiency of the N uptake by the crop and so an ever smaller share is taken up by the crop leading to increasing nitrogen losses. Since the water quality objectives have not been achieved yet, a general increase of the N fertiliser standards is not being considered. Furthermore, the farm-based approach allows a certain amount of flexibility between the crops.

It is observed that the obligation of the **efficient nitrogen system** does not have any benefit. However, fertiliser standards on the basis of the efficient nitrogen are the most purposeful for contributing to the judicious use of fertilisation. They make it possible to fulfil crop needs in the best possible way. Fertilisation

recommendations are furthermore expressed in terms of the efficient nitrogen. Different organisations offer support for implementing the efficient nitrogen system. What is more, a free calculation program called 'BASsistent' is made available to draw up a fertilisation plan and register.

As an alternative to the **dose limitation for effluent** during the closed period (from 01/09-15/11 and from 15/01-15/02) 30 kg Ntotal for non-focus farms and 20 kg Ntotal for focus farms is being proposed, without limiting the mineral nitrogen. However, since the use of effluent was already limited to 10 kg mineral nitrogen per ha and the nitrogen content of effluents largely (80-90%) consists of mineral nitrogen, this proposal would represent a de facto relaxation of the rules so that this proposal cannot be included.

Mixing in straw temporarily causes immobilisation of N due to the high C/N ratio of the straw. The nitrogen is released again later. If this release occurs too early in the season, the nitrogen cannot be absorbed yet by the next crop and it will leach. However, with a green cover crop on the other hand, the residual nitrogen is still absorbed for a long time and it is possible to better guide the nitrogen release. As a result, mixing in straw cannot really be seen as equivalent to sowing a green cover crop.

3.4.2.5 Phosphorus fertilisation standards

The **phosphate reserve in our soil has developed over time** and may not hinder the use of livestock manure. However, the phosphorus fertilisation standards must be adapted to counter the further enrichment of agricultural land with a high risk of phosphate losses and reduce the phosphate content. Taking into account the plant available phosphorous in the soil (categorisation in 4 classes), this will lead to fertilisation that is better adapted to the phosphate situation of the soil. The amended fertilisation standards will in many cases ensure that phosphorous becomes the limiting nutrient in the application of livestock manure. To make maximum use of the nutrients in livestock manure, in MAP5 fertilisation will no longer be carried out and evaluated at parcel level but at farm level. In addition, simple manure processing techniques can adapt the composition of livestock manure to achieve a more favourable N/P ratio and manure customised to meet the needs of the crop.

It is indicated that a high phosphate presence does not always say something about the **P-availability**. The categorisation of the soils into classes, and thus also the fertilisation standards, occur on the basis of the plant P-availability and not on the basis of the phosphate presence.

The request to charge **50% of the P-fertilisation using farm yard manure and compost**, to be permitted for all soils (even class III and IV soils), both for organic farming and general agriculture, cannot be justified scientifically despite the importance of the supply of organic matter to retain or recover the soil quality. Applying a double dose of phosphorous on class III and IV soils will after all lead to a further increase in phosphorous availability, whilst those soils should be extracted to prevent future phosphorous losses to the environment. In addition, other measures can be taken to improve the organic matter content in the soil, namely applying straw, catch crops, crop rotation, etc.

It is requested that the **terms compost and farm yard manure** be deleted and replaced by a general term that reflects the composition requirements. However, farm yard manure and compost are products known to farmers that are linked to certain quality requirements via the definitions of the Manure Decree and other legislation, so that these terms will not be replaced.

It is requested that **additional fertilisation with water-soluble phosphorous from mineral fertiliser** be permitted in function of the P-availability class and if this is possible with an eye to cultivation, since livestock manure cannot fulfil the needs pertaining to cultivation. However, every farmer can efficiently apply nitrogen

and phosphorous at their farm with the farm-based approach. The user of different types of fertiliser is assessed at farm level.

The categorisation into 4 classes tries to hold the middle between sufficient differentiation in fertilisation standards and too great a **complexity** of the system. The introduction of an additional class of P-availability in which the most problematic parcels would be placed, would make the system more complex.

By letting the farmer assess the fertilisation space judiciously, the desired P extraction may not necessarily be achieved on the desired parcels. Within a **farm-based approach** higher use of nutrients on one parcel must be compensated on other parcels so that the total fertilisation space at the farm is respected. Furthermore, the analysis to determine the phosphate class is only valid for 5 years. If a farmer applies the P-fertilisation injudiciously, there is a chance that these parcels will end up in a higher class.

The global reserve of phosphate is indeed threatened by mass **phosphorous extraction for mineral fertiliser** for the agricultural sector. However, Flemish soils are rich in plant available phosphate. The greater part of the soil phosphate is bound and not directly available to plants. However there is still a part of the phosphate in solution that can be freely absorbed by plants and is also subject to leaching.

The phosphorous present in the soil that comes from **metal slag** is not determined by means of the analyses. After all, the analyses only determine the plant available phosphorous and not the total phosphorous present in the soil.

Exempting small parcels from measuring P availability is being discarded, as the farmer is free to not have the phosphate content of certain parcels analysed. Since fertilisation is evaluated at farm level as of MAP5, the farmer has to decide for himself whether the P-fertilisation space at his farm suffices to be able to apply the fertilisation in a judicious way or that he will have samples taken on additional parcels.

Repayment of the analyses in class III cannot be justified on the principle of 'the polluter pays' since it concerns soils where the amount of plant available phosphorous is higher than the target zone and thus forms a risk of phosphate losses to the environment.

Making the phosphorus fertilisation standards stricter is expected to cause even more manure with **unrealistically high content values** to be removed to the manure processing. The compulsory registration of the manure transports provides data about the nutrient flows to manure processing. A targeted campaign by the Manure Bank in which the analyses of transports of manure with unrealistically high content values were requested, has already been very effective. MAP5 sees the farm balance becoming an important instrument for risk analysis and farm assessment. A farm assessment above all looks at the internal consistency and accountability of the balance. Since the balance result is no longer the end on the basis of which a balance fine is imposed, it is expected to contribute to the use of more realistic content values.

The question was raised why the **manure processing percentages do not rise** when the phosphorus fertilisation standards are reduced. As a result of the amended phosphorus fertilisation standards there can indeed be a need for additional manure processing, but the government prefers to not impose any additional obligations. That is why the manure processing percentages do not rise.

In contrast to in the Netherlands, a very wide margin is provided for **processing the soil analyses** for P-availability. However, 31 August is the deadline for processing the information in order to be able to offer the farmers correct information at the start of the next fertilisation season. This information is not made available in the same way in the Netherlands.

3.4.2.6 Horticulture

It is indicated that the **fertiliser standards for vegetable farming** are unacceptable. The specific nature of vegetable farming means that at present thorough substantiation of the fertiliser standards analogously to the fodder and arable crops. In addition, it is not clear whether these standards are at the level of balanced fertilisation, but it is estimated that the standards for vegetables offer sufficient space to achieve an optimum yield. As a result of this lack of clarity, fertilisation on the basis of a recommendation has been compulsory in vegetable farming since 2013.

Nutrients are not absorbed from the soil in the minimum **closed period**. Fertilisation, even if the fertiliser contains few nutrients such as **drainage water and compost**, on top of the soil reserve is pointless. What is more, the production of drainage water is generally very low to non-existent in this period.

To apply **organic material** in a fruit plantation after planting, technical amendments to equipment can offer relief. After all, there is no obligation to work under the organic material for woody crops since MAP3. Broader equipment can be worked with temporarily for fresh planting.

Drawing up a **soil balance** for the horticultural sector (additional measure) is aimed at sensitisation. The idea is to give the farmer involved more insight into the fertilisation practices, since vegetable farming comprises risk crops with regard to nitrate leaching. The concrete elaboration of the soil balance is regulated in an implementing decision of the Flemish government and will be achieved in consultation with the sector. In addition, a 'bassistent' (balance programme) is being made publically available.

Adjusting the minimum number of soil analyses with accompanying fertilisation advice, removes the necessity of **indicating parcels that do not receive fertiliser on the Parcel Registration**, which would be an additional administrative burden for the government and farmers.

3.4.2.7 Control and enforcement

Since the function and properties of a **catch crop, green cover crop or a secondary crop** are different, it is not expedient to treat them in the same way. Different bodies (including the Manure Bank, Farm Advice department of VLM and the CVBB) offer support and assistance to farmers and horticulturalists so that they can take the best decisions.

A firm guarantee is requested that the **complexity** of the new regulations will not lead to a more flexible transitional policy or will lead to the Manure Bank being able to carry out fewer controls. By means of a far-reaching area-oriented and farm-based approach, MAP5 wants to contribute to achieving the water objectives for surface waters and groundwater. The Manure Bank will ensure that calculation methods are as clear and transparent as possible. Where possible, administration is kept to a minimum, simplified and the rules are harmonised with existing legislation.

There is also fear that the **control capacity** is too low, so that the monitoring of the manure policy will also be too low. In addition, it is feared that the complexity of MAP5 will cause a higher administrative burden. In MAP5 the focus will shift from administrative controls to farm assessments. The fertilisation strategy within the farm will be evaluated by means of the nitrate residue controls. On a yearly basis, 40-50% of all the farms will be subject to a nitrate residue control. The on-site controls of the fertilisation practices and other violations with a direct impact on the environment will be kept and where necessary strengthened. On the basis of specific risk analysis, farms will be selected for a thorough farm assessment. In MAP5 Flanders wishes to improve the execution of these risk analyses even further. There will also be greater control pressure in focus areas. In other words, the controls will be aimed even more at the problem areas and farms. The VLM

will deploy the available enforcement capacity as efficiently as possible to achieve the objectives of MAP5. In the past few years, the VLM has already invested in far-reaching computerisation as well as reducing the administrative burdens.

It is indicated that the MAP5 measures are **not viable** for a farmer and horticulturalist. The analyses that have to be carried out enable the farmer to achieve more sustainable operations, but can be accompanied by costs. The measures included in MAP5 are part of the good agricultural practices which are often already applied by any environmentally-friendly farm. Measures have been opted for in MAP5 that can generate a very positive environmental impact with as low as possible financial repercussions for the agricultural and horticultural sectors.

During the farm assessment and the evaluation of the **farm balance**, the information from the farm that accepts the manure should be unlinked from the farm offering the fertilisers. A farm assessment is carried out to look at the internal consistency and accountability of the balance sheet. If, during a farm assessment, there are suspicions that a **non-representative fertiliser composition** is stated on the declaration or on the transport documents, the Manure Bank can impose other fertiliser composition figures that have to be used for the declaration, on the transport documents or to calculate the supply and removal of fertilisers to and from the farm. By not adjusting the composition on the transport documents but changing the supply or removal to and from the farm in question, the supply and removal can be recalculated with new fertiliser composition figures, without this having consequences for the other party named in the transport document. After all, it is not always desirable that the other party also bear the consequences of using non-representative fertiliser compositions from the farm in question.

More specific **monitoring of manure processing installations** and of the **composition of effluents and digestates** is requested. The manure processing sector itself is asking for a fairer division of the administrative burden amongst the manure processing sector and the farmers. Since, in view of the importance of manure processing in the Flemish manure balance, proper monitoring of manure processing installations is very important, the administrative and on-site controls of manure processing installations will be continued and strengthened in MAP5.

It is requested that the amount of reduction that a farmer has acquired on his payment entitlements as a result of a violation be deducted from the fine (avoid **double sanctioning**). Fulfilling the conditions as they exist at the Department of Agriculture and Fishing is necessary to obtain subsidies. A number of conditions relate to the correct compliance with the provisions of the Manure Decree. A farm can get a reduction within the framework of the conditions after a fine has been imposed by the Manure Bank because a provision of the Manure Decree was not respected. The fines and reduced subsidy are completely different in nature and have a different finality. As a result, it is not unreasonable to not only apply an administrative fine but also a reduced percentage since the conditions have not been met.

3.4.2.8 Other

Derogation is requested for 2015. In addition, a number of suggestions are formulated to adapt the derogation system. However, derogation is not part of the action programme. First, the action programme must be approved by the authorised bodies of the European Commission and set out in the Manure Decree, after which a request for derogation can be submitted.

Comments are formulated on the management fees. The **management agreements** are not a direct part of the manure action programme, but belong to the flanking measures. The aim is to gear the management fee to the efforts made as well as possible.

The dairy farming sector indicates that a production limitation on the basis of **NER** is superfluous (regulation via the outlets on agricultural land). However, control of the production of livestock manure remains an important cornerstone of the manure policy. The livestock population is regulated with the system of nutrient emission rights. To further improve the water quality, it is necessary to avoid creating any further fertilisation pressure, without depriving farmers of the possibility to develop further.

With regard to the question of a halt to the possibility of **expanding after proven manure processing**, the possibility to expand remains in MAP5. The MAP5 measures must contribute to achieving the water objectives, however without depriving farmers of the possibility to develop further.

It is stated that Dutch farmers invest in **farms in the border region** because expansion is no longer possible in the Netherlands, which increases the burden on the Flemish standards even more. Regardless of nationality, all farmers and horticulturalists active in Flanders must comply with the provisions of the Manure Decree. Even Dutch farmers who invest in farms in the region of the border in Flanders. The pressure on the Flemish standards does not increase as a result of this. The possibility to expand by processing manure implies that 125% of the additional manure production has to be processed and as a result does not create additional pressure on the agricultural land.

Flexibility is requested with regard to the **dates of the closed period**. However, the closed periods are chosen in such a way that they keep the nutrient losses to the groundwater and surface waters as limited as possible. The current Manure Decree already provides for the latest sowing date for catch crops to be extended to 10 September in exceptional weather conditions. The suggestion to fix the dates for sowing catch crops less strictly is therefore not included.

It is stated that the **closed period for effluent** has a major impact on the manure processing installations (storage requirement). However, from an environmental perspective spreading effluents when there is no uptake of nitrogen cannot be justified. Effluent, produced during the closed period, must be stored just like livestock manure and other fertilisers.

A question is asked about the **fertiliser standards for green areas and sports fields** (recreational green areas). These are covered by the group 'gardens, parks and public gardens' to which the fertiliser standards for 'other crops' apply. No results are available with regard to fertilisation tests on sports fields and decorative lawns. Attention is requested for the **approach at the source via the feeds**. Even if something has not directly been included in the action plan with regard to the *feeds*, this does not mean that no further attention is being paid to this. The approach at the source via low-nutrient feeds and improved feed techniques remains an important cornerstone of the manure policy.

Concretisation of the stricter measures is requested if the mid-term evaluation shows that the objectives will not be met. These measures will be achieved in consultation with the authorised departments of the European Commission.

The following participation reactions do not relate to the draft action programme or the manure legislation and thus fall outside the scope of this public inquiry:

- The contribution of the agricultural sector to air quality and the impact of neighbouring countries on air quality are not regulated via the MAP. MAP5 executes the Nitrates Directive that sets objectives for the quality of the surface waters and groundwater.

- It is stated that everyone must be equal before the law in Belgium. The manure legislation is a regional competency in Belgium. Every region must draw up an action programme in accordance with the Nitrates Directive.
- Different legislation applies in the neighbouring countries (e.g. the distance from the fertilisation free zones). Every member state or region must draw up an action programme in accordance with the Nitrates Directive, taking into account the specific characteristics of agriculture and the evaluation of the water quality.
- Achieving the conservation objectives is regulated through the Programmatic Approach to the nitrogen deposits (PAS). PAS will above all be carried out through source-oriented measures (regulated through the licence policy) and repair measures. The manure policy is not a licence policy.
- A ban on fertilisation applies in nature areas, except for the fertilisation of grassland by means of the direct excretion during grazing. This was imposed amongst other things with an eye to achieving the water objectives and protecting the nature present. The demarcation of the ecologically valuable areas has been determined in the Regional Land-use Plans and falls outside the scope of MAP5.
- The house plots are known at the Manure Bank and thus cannot simply be expanded. So it is not possible for parcels in natural landscapes that have had zero fertilisation for years once again get the full fertiliser standard due to an expansion of the house plot.
- The exemption to the ban on fertilisation in specific nature areas is not being revised. It concerns a (complex) balance from the past between agriculture and nature that is not being changed now. After all, this is not covered by the European Nitrates Directive and this action programme. Increased presence on the field also increases the control pressure on the parcels with zero fertilisation.
- The demarcation of flood areas and a ban on fertilisation in these areas are requested. However, the demarcation of flood areas is not part of the manure policy.
- Control of the careful use of chemical plant protection products is not covered by the manure legislation.
- Measures concerning the discharge of waste water from sectors other than agriculture do not fall within MAP5.
- Different measures are offered to improve the water quality. Neither the management of raw materials (phosphate rock), nor public water treatment are part of the manure policy.
- There are key figures for the conversion of the number of animals into livestock units. When determining these key figures, the suggestion to further examine the conversion for Jersey cows can be taken into consideration.

3.4.2.9 Plan-SEA

For the ***description of the reference situation*** above all the MIRA reports were used, since the study area covers the whole of Flanders. Naming additional studies does not offer any added value to the SEA and does not have an impact on the assessment of the impact. What is more, the idea is to discuss the general situation, with more details for the disciplines relevant to the Action Programme (soil, water and man). ***Health effects for secondary matter and the spread of antibiotics, metabolites and bacteria*** lead us too far into a discussion of the reference situation.

It is requested that the circular letter sent by Minister Crevits and the Flemish Dust Plan be named in the ***legal and policy preconditions***. Many legal and policy preconditions apply for all of Flanders. The guideline meeting

discussed naming the most relevant ones. Naming the plans requested will not lead to a change in the impact assessment and thus does not offer any added value.

In view of an SEA at strategic level and the limited study carried out about it, the perimeter with regard to **health effects** and the effects with regard to reducing respiratory complaints were not named and studied. This would lead too far in the impact assessment.

The **terminology** nitrate and phosphate use means nitrogen and phosphorous use. This is correctly illustrated in the graphs and figures shown, but incorrectly in the description. However, this does not have an impact on the assessment of the effect.

The terms harmed and vulnerable catchment areas are used to make a distinction in the current qualitative situation. Harmed drinking water catchment areas are areas that are already characterised by the presence of pollutants in the surface waters or groundwater. As of today, neither the situation nor the evolution have improved to such a degree that water treatment is superfluous to achieve the desired drinking water quality. Vulnerable drinking water catchment areas on the other hand are areas where potentially problems with the water quality could occur if controls and sufficient protection measures are not carried out and taken.

Some confusion could occur with regard to what is understood by the term '**uncovered land**', with regard to agriculture and flora and fauna. The impact assessment still remains all encompassing.

The **measures group 'stricter phosphorus fertilisation standards'** stated that this will have an enormous impact on the discipline "man" and the assessment '-/0' is too small. Soil analyses of the lowest P fertiliser standard lead to high costs. However, for the impact assessment, it is not only the cost that is taken into consideration and (in this case) all the farmers are charged. On average, an impact of – and/or 0 is obtained. The secondary effects of **an increase in the number of livestock** are contained in the discussion of the future situation and **preservation of permanent grassland** has been included in the preconditions.

With regard to **cross-border effects**, the effects from abroad on Flanders were not investigated since this was not the intention. For the effects of abroad on Flanders please refer to the SEA within the framework of the plans for the Nitrates Directive being executed in neighbouring countries.

The **effect of intensive livestock farming on health** is not stated in the gaps in the knowledge. However, this gap does not form an obstacle to a sufficient environmental assessment at strategic level, as was carried out in the plan-SEA.

The **alternative 'stop on expansion by processing manure'** was examined at the same level as the plan itself. The idea is not to discuss an alternative in more detail. The expansion after proven processing of manure is mainly relevant in this case for pigs and poultry and not for cattle. The evolution of the number of cattle under the influence of other factors (e.g. the abolition of the milk quota) has nothing to do with this alternative.

Other alternatives were not examined in the plan-SEA, as they are not the subject of the SEA and it concerns an SEA at strategic level which cannot contain a high degree of detail:

- Decreasing the number of livestock. This is already partly included in the alternative 'stop expansion by processing manure'. Setting a licence ceiling is not a subject for the fertiliser policy but for the licence policy.
- Making sheds low-emission at an accelerated rate or purchase and destruction scheme for old infrastructure. This is also a topic in licence policy.
- Abolition of the milk quota.

In the **appropriate assessment**, only MAP4 and MAP5 are compared. Since MAP5 does not aim to achieve the nature-oriented target values, guide values and limits, but does aim to execute the European Nitrates

Directive, the appropriate assessment did not check whether they can will/be achieved by executing MAP5. In an appropriate assessment, it is checked whether significant negative impacts can be expected from the execution of the intended plan for the Natura 2000 areas. This need not occur specifically at basin level. An illustration (Figure 13-5) shows which basins have a positive or negative trend with regard to phosphate concentrations in the surface waters.