

Nitrates Directive Derogation Guidance Booklet 2011-2014

For Northern Ireland farmers on the requirements of the Nitrates Directive Derogation from the livestock manure limit of 170kg Nitrogen per hectare per year.



Department of
**Agriculture and
Rural Development**

www.dardni.gov.uk

AN ROINN

**Talmhaíochta agus
Forbartha Tuaithe**

MÁNNYSTRIE O

**Fairms an
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Northern Ireland
**Environment
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Introduction

In Northern Ireland the Nitrates Directive is implemented through the Nitrates Action Programme (NAP) Regulations (Northern Ireland) 2010 (NAP Regulations). These Regulations include a limit on the amount of nitrogen (N) from livestock manure that can be applied to land of 170kg N/ha/year on all farms.

In 2010 Northern Ireland was successful in applying to renew the Derogation (Commission Decision 2007/863/EC as amended) to permit the land application of up to 250kg N/ha/year from grazing livestock manure under certain conditions. This Derogation, for the period 2011 to 2014, is also implemented through the NAP Regulations. It is underpinned by scientific justification showing that this fertilisation amount will not compromise the achievement of protecting and improving water quality on the basis that the following objective criteria apply to Northern Ireland:

- long growing seasons;
- crops with high N uptake;
- high net precipitation; and
- soils with exceptionally high denitrification capacity.

In addition, all farms applying chemical fertiliser containing phosphorus (P) must comply with the Phosphorus (Use in Agriculture) Regulations (Northern Ireland) (2006) (Phosphorus Regulations).

This Derogation Guidance Booklet provides details of what you are required to do under derogation. It is only applicable if you have been successful in applying to the Northern Ireland Environment Agency (NIEA) to operate under an individual derogation, otherwise the livestock manure limit of 170kg N/ha/year under the NAP Regulations applies.

Cross-Compliance

The Nitrates Directive is one of the Cross-Compliance Statutory Management Requirements and all farmers are required to comply with the NAP Regulations (including measures for derogated farms, if applicable). Whilst compliance with the Phosphorus Regulations is not a verifiable standard under Cross-Compliance, it is a legal requirement. A Guidance Booklet on the NAP and Phosphorus Regulations 2011-2014 will be available from Spring 2011.

Farmers should note that the NAP and Phosphorus Regulations Guidance Booklet and the Derogation Guidance Booklet issued from 2007 to 2010 are only applicable for those years.

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Summary of measures required to comply with the Nitrates Action Programme and Nitrates Derogation

Table 1	Key measures	
Verifiable standards	Nitrates Action Programme Requirements for ALL farmers	Additional action required on derogated farms
<p>Closed spreading periods</p>	<ul style="list-style-type: none"> ■ Chemical nitrogen fertiliser must not be applied from midnight 15 September to midnight 31 January. ■ Organic manures, including slurry, poultry litter, sewage sludge and abattoir waste, must not be applied from midnight 15 October to midnight 31 January. ■ Farmyard manure (FYM) must not be applied from midnight 31 October to midnight 31 January. ■ There is no closed spreading period for dirty water. Land application restrictions listed below apply to spreading of all fertilisers, including dirty water. 	<ul style="list-style-type: none"> ■ Where the fertilisation plan indicates a proposal to disturb soil as part of grass cultivation, for example ploughing, there must be no application to that parcel of land of any organic manures, including FYM and dirty water from midnight 15 October in any year to midnight 31 January of the following year.
<p>Land application restrictions</p>	<p>Prevent entry of fertilisers to waters and ensure application is accurate, uniform and not in a location or manner likely to cause entry to waters.</p> <p>All fertilisers, <u>chemical and organic</u>, must not be applied:</p> <ul style="list-style-type: none"> ● on waterlogged soils, flooded land or land liable to flood; ● on frozen ground or snow covered ground; ● if heavy rain is forecast in the next 48 hours; ● on steep slopes (that is an average incline of 20% or more on grassland or an average incline of 15% or more on all other land) where other significant risks of water pollution exist. Risk 	<p style="text-align: right;">(continued)</p>

Summary of measures required to comply with the Nitrates Action Programme and Nitrates Derogation

Verifiable standards	Key measures	
	Nitrates Action Programme Requirements for ALL farmers	Additional action required on derogated farms
Land application restrictions (continued)	<p>factors to be considered include the proximity to waterways, the of time to incorporation, the type and amount of fertiliser being applied and the soil and weather conditions.</p> <ul style="list-style-type: none"> ■ Chemical nitrogen fertilisers must not be applied within 2m of any waterway. ■ Organic manures including dirty water must not be applied within: <ul style="list-style-type: none"> ● 20m of lakes; ● 50m of a borehole, spring or well; ● 250m of a borehole used for a public water supply; ● 15m of exposed cavernous or karstified limestone features; ● 10m of a waterway other than lakes; this distance may be reduced to 3m where slope is less than 10% towards the waterway and where organic manures are spread by bandspreaders, trailing shoe, trailing hose or soil injection or where adjoining area is less than 1 ha in size or not more than 50m in width. ■ Application rates: <ul style="list-style-type: none"> ● No more than 50m³/ha (4500 gal/ac) or 50 tonnes/ha (20 t/ac) of organic manures to be applied at one time with a minimum of three weeks between applications; 	

(continued)

Summary of measures required to comply with the Nitrates Action Programme and Nitrates Derogation

Verifiable standards	Key measures							
	Nitrates Action Programme Requirements for ALL farmers	Additional action required on derogated farms						
Land application restrictions (continued)	<ul style="list-style-type: none"> ● No more than 50m³/ha (4500 gal/ac) of dirty water to be applied at one time with a minimum of two weeks between applications. ■ Slurry can only be spread by inverted splashplate, bandspreaders, trailing shoe, trailing hose or soil injection. ■ Dirty water to be spread by same methods as slurry and by irrigation. ■ Sludgigators must not be used. 							
Chemical Nitrogen (N) fertiliser crop requirement	<p style="text-align: center;">Maximum kg N/ha on grassland</p> <table> <tr> <td>Dairy farms*</td> <td>272</td> <td>(8¼ bags** /ac)</td> </tr> <tr> <td>Other farms</td> <td>222</td> <td>(6¾ bags**/ac)</td> </tr> </table> <p>(N from organic manures other than livestock must be subtracted)</p> <p>*More than 50% of N in livestock manure comes from dairy cattle</p> <p>** Approximate number of 50kg bags of a 27% N type fertiliser</p> <p>For non-grassland crops, the crop requirement as determined by the latest edition of RB209.</p>	Dairy farms*	272	(8¼ bags** /ac)	Other farms	222	(6¾ bags**/ac)	
Dairy farms*	272	(8¼ bags** /ac)						
Other farms	222	(6¾ bags**/ac)						

(continued)

Summary of measures required to comply with the Nitrates Action Programme and Nitrates Derogation

Verifiable standards	Key measures	
	Nitrates Action Programme Requirements for ALL farmers	Additional action required on derogated farms
Chemical Phosphorus (P) Fertiliser	Can only apply fertilisers containing chemical phosphorus if soil analysis shows a requirement as determined by the latest edition of RB209. ***	
Livestock Manure Nitrogen Limits	170kgN/ha/year farm limit.	<ul style="list-style-type: none"> ■ 250kg N/ha/year limit from grazing livestock manure, cattle (excluding veal calves, sheep, deer, goats and horses). 170kg N/ha/year limit from all other livestock.
Livestock Manure Storage Requirements	<ul style="list-style-type: none"> ■ 26 weeks livestock manure storage capacity for pig and poultry enterprises. ■ 22 weeks for other enterprises. ■ Provided certain criteria are met there are allowances for out-wintering, animals in bedded accommodation, separated cattle slurry, renting additional tanks, poultry litter stored in a midden or field heap and exporting manure to approved outlets. ■ Livestock manure and silage effluent storage must be maintained and managed to prevent seepage or run-off. ■ New or substantially enlarged or reconstructed stores must comply 	

(continued)

*** This is not a verifiable standard under Cross-Compliance, but compliance with the Phosphorus Regulations is a legal requirement.

Summary of measures required to comply with the Nitrates Action Programme and Nitrates Derogation

Verifiable standards	Key measures	
	Nitrates Action Programme Requirements for ALL farmers	Additional action required on derogated farms
Livestock Manure Storage Requirements (continued)	<p>with the Silage, Slurry and Agricultural Fuel Oil (SSAFO) (Northern Ireland) Regulations, 2003.</p> <ul style="list-style-type: none"> ■ FYM storage: <ul style="list-style-type: none"> ● FYM may be stored in middens with adequate effluent collection facilities. ● Until 31 December 2012, FYM may be stored in field heaps where it is to be applied but for a maximum of 180 days. ● From 1 January 2013, FYM may be stored in field heaps where it is to be applied but for a maximum of 120 days. ● FYM field heaps must not be located on land that is waterlogged, flooded or likely to flood. ■ Poultry litter storage <ul style="list-style-type: none"> ● Poultry litter may be stored in middens with adequate effluent collection facilities. ● Poultry litter may be stored in field heaps until 30 September 2011. ● Poultry litter may only be stored in field heaps for a maximum of 180 days in the field where it is to be applied and must be covered with an impermeable membrane as soon as possible and within 24 hours of placement in the field. ● Field storage of poultry litter is to be reviewed in 2011. 	

Summary of measures required to comply with the Nitrates Action Programme and Nitrates Derogation

Verifiable standards	Key measures	
	Nitrates Action Programme Requirements for ALL farmers	Additional action required on derogated farms
Livestock Manure Storage Requirements (continued)	<ul style="list-style-type: none"> ■ FYM and poultry litter field heaps must not be stored: <ul style="list-style-type: none"> ● in the same location of the field year after year; ● within 50m of lakes; ● within 20m of a waterway; ● within 50m of a borehole, spring or well; ● within 250m of a borehole used for a public water supply; ● within 50m of exposed cavernous or karstified limestone features. ■ Dirty water storage: <ul style="list-style-type: none"> ● Provide storage for dirty water during periods when conditions for land application are unsuitable. 	

(continued)

Summary of measures required to comply with the Nitrates Action Programme and Nitrates Derogation

Verifiable standards	Key measures	
	Nitrates Action Programme Requirements for ALL farmers	Additional action required on derogated farms
Land management	<ul style="list-style-type: none"> ■ Crop and soil management to minimise soil erosion and nutrient run off. 	<ul style="list-style-type: none"> ■ At least 80% of controlled agricultural area must be grassland. ■ Temporary grassland is only ploughed in spring; ■ Ploughed grass is followed immediately by a crop with a high nitrogen demand; ■ Crop rotation does not include leguminous or other plants fixing nitrogen except for grassland with less than 50% clover and to areas with cereals and peas undersown with grass.
Record keeping	<ul style="list-style-type: none"> ■ Agricultural area, field size and location. ■ Cropping regimes and areas, Soil Nitrogen Supply (SNS) index for crops other than grassland. ■ Livestock numbers, type, species and time kept. ■ Organic and chemical fertiliser details including imports and exports. 	<p>To become a derogated farm a controller must apply to NIEA on or before 1 March in the year for which the derogation is being sought.</p> <p>A controller of a derogated farm must: Keep a completed fertilisation plan on farm and have it ready for inspection by 1 March for that calendar year.</p>

Summary of measures required to comply with the Nitrates Action Programme and Nitrates Derogation

Verifiable standards	Key measures	
	Nitrates Action Programme Requirements for ALL farmers	Additional action required on derogated farms
Record keeping (continued)	<ul style="list-style-type: none"> ■ Evidence of a phosphorus requirement if chemical phosphorus is fertiliser sown. *** ■ Storage capacity and where applicable associated evidence to support allowances to reduce capacity. ■ Evidence of control over the agricultural area and the right to graze common land. ■ Many of these records already exist on farms, for example, SAF / IACS form, farm maps, herd and flock records and fertiliser receipts. ■ Records to be ready by 30 June each year for period 1 January to 31 December of previous year. ■ Records to be available for inspection from previous five calendar years. 	<p>It must include:</p> <ul style="list-style-type: none"> - planned average stock numbers for the year; - description of housing and storage system; - volume of livestock manure storage; - planned livestock manure N and P to be produced on the farm; - planned areas of grass and other crops to be grown and area noted on farm map; - N and P requirements of crop to be grown; - soil analysis results when available. - organic manure to be imported or exported; - planned N and P applications from livestock manure over each uniform area of soil type and crop; and - planned N and P to be applied from chemical and other organic manures over each uniform area of soil type and crop.

*** This is not a verifiable standard under Cross-Compliance, but compliance with the Phosphorus Regulations is a legal requirement.

Summary of measures required to comply with the Nitrates Action Programme and Nitrates Derogation

Verifiable standards	Key measures	
	Nitrates Action Programme Requirements for ALL farmers	Additional action required on derogated farms
Record keeping (continued)		<p>Plans to be revised no later than seven days detailing any changes in agricultural practices. See page 25.</p> <p>Prepare and submit a fertilisation account to NIEA each year on or before 1 March for the previous calendar year. It must include:</p> <ul style="list-style-type: none"> - N requirement of crops grown; - N and P chemical fertiliser usage; - type and number of livestock; - quantity and type of organic manure imported and exported; - the amount of P in agricultural products entering and leaving the farm, for example, concentrates, milk, livestock, eggs, livestock manures, fertilisers, forages and crops (if the amount of P deviates from the standard figures, documentary evidence must be provided); and - how dirty water is managed.

Summary of measures required to comply with the Nitrates Action Programme and Nitrates Derogation

Verifiable standards	Key measures	
	Nitrates Action Programme Requirements for ALL farmers	Additional action required on derogated farms
Phosphorus balance	Not applicable	Must not exceed a surplus of 10kg P/ha/year on a derogated holding.
Compliance with notices	Any notice served under the NAP Regulations must be complied with.	

Key Definitions Under a Derogation

Grassland farms - holdings where 80% or more of the agricultural area available for manure application is grass.

Grazing livestock - cattle (with the exclusion of veal calves), sheep, deer, goats and horses.

Grass - permanent grassland or temporary grassland (temporary implying leys of less than four years).

The following farm scenario is used throughout this booklet.

61ha agricultural area controlled

56.78ha of grassland controlled

4.22ha winter wheat

100 dairy cows

5 cattle over 2 years

30 cattle 1-2 year olds

30 cattle under 1 year

1 broiler house finishing 132,000 birds per annum

Exports 141 tonnes of broiler litter off-farm

Control

In general, under the NAP Regulations, the controller of the land is responsible for complying with the rules, including measures concerned with application for derogation, preparation of fertilisation plans, submission of fertilisation accounts, record keeping, and compliance with capacities and limits. However for other measures, in particular those concerned with management and application of nitrogen fertiliser, an “appropriate person” can be held responsible for any offence.

The “appropriate person” is defined as the controller; any person permitted by the controller to carry out, on their behalf, any activity described in the Regulations; the owner of any storage facility used for the storage of livestock manure and silage effluent, or any person using such storage facilities for the storage of livestock manure and silage effluent. Please refer to Section 1 of the NAP and Phosphorus Regulations Guidance Booklet 2011-2014 for further detail on responsibilities for complying with the Regulations.

The owner of the land is assumed to be the controller and responsible for the land from 1 January to 31 December unless written evidence can be provided to the contrary. This written evidence can either be if you are claiming Single Farm Payment (SFP) on the land for that period, or there is a written agreement between the owner and the tenant, establishing control of that land. This agreement should

1. clearly identify the two parties;
2. the exact location; and
3. the area of the land and the calendar year(s) to which it applies.

It is the responsibility of the parties concerned to provide evidence that a written agreement exists. It is best practice that a written agreement should be signed and dated by the parties concerned. A written agreement should transfer the responsibility for compliance with the NAP and Phosphorus Regulations only and does not affect other SFP obligations.

Control

Table 2 Example Scenarios:

	Controlled by land owner	Controlled by tenant
No claims of SFP on land	✓	
Land owner claims SFP on owned land	✓	
Land owner not claiming SFP lets land out and tenant claims SFP		✓
Land owner claiming SFP but with a written agreement can transfer control to tenant		✓

There can be only one controller in the year. If land is farmed by farmers other than the controller it still remains the responsibility of the controller to ensure compliance. For example, if the controller allows another farmer to grow winter cereals on the land, the controller must ensure that the farmer growing the winter cereals complies with the Regulations.

For claimants of SFP remember that all land farmed / controlled must be included on the SAF/IACS form.

Applying for a derogation

When must I apply for a derogation?

Farmers who want to benefit from a derogation must submit an application form for that year and a fertilisation account (if operating under a derogation in the previous year) to be received by NIEA each year on or before **1 March**.

Late applications will not be accepted.

When can I expect a decision on my application?

NIEA must make a decision within 28 days of receipt of a complete application. Where your application is deemed approved you will generally not receive any further correspondence from NIEA. You will receive a letter within 28 days of receipt of your application if it has been refused, with an explanation of the reason for refusal.

Applications received after 1 March or incomplete applications cannot be accepted.

What can I do if my application is refused or was received after 1 March deadline?

You must adjust your management of your farm to comply with the 170kg N/ha/year livestock manure limit.

Under certain circumstances, you also have the right to appeal against an NIEA decision to refuse your application for derogation. You can do this by contacting the Water Appeals Commission within 28 days of the refusal. The appeal should contain, or be accompanied by, a statement of the grounds of appeal. The Water Appeals Commission has powers to overturn the refusal or dismiss the appeal.

The Water Appeals Commission can be contacted at:

Park House
87-91 Great Victoria Street
Belfast
BT2 7AG
Tel: 028 9024 4710
Fax: 028 9031 2536
E-mail: info@pacni.gov.uk

Farmers may wish to consider taking legal advice before making an appeal. Legal advice would be sought at your own expense.

Any queries on the legal interpretation of the Regulations and on their enforcement should be made to NIEA.

What if I find out that I no longer need a derogation?

If at any stage your circumstances change so that you are operating below 170 kg N/ha/year livestock manure you must inform NIEA as soon as possible. They will require you to provide written evidence to show that you can operate below this livestock manure limit and will therefore need you to provide details of livestock manure production, livestock manure imports and exports and area of land controlled.

Completing the application form

Section A

To complete the application form, both boxes in Section B must be filled in or the application will be considered incomplete. Where you have no information to declare in boxes in Sections C and D ensure you put a line through the box. If subsequently it becomes apparent that something should have been declared, and has been omitted this will be considered a false declaration and may affect your derogation approval. Page references mentioned throughout are from this booklet.

Write your name, address, DARD business reference number and contact information. Please complete in **BLOCK CAPITALS**.

Nitrates Derogation Application Form Section A (Sample form)

Example of the Nitrates Derogation Application Form 2011

SECTION A

Name: _____ JOHN SMITH _____

Address: _1 BIGFARM ROAD _____

_____ BALLYHOME _____

Post Code __BT2 7AG_____

DARD Business Ref No.: _675256

Telephone: _028 1234 5678_____

Mobile: _____ 07412 345678 _____

E-mail: _____

Completing the application form

Section B

To be eligible for derogation, 80% or more of the agricultural area of your holding under your control must be grassland. **Only land that you own is assumed to be under your control unless evidence can be provided to the contrary (see page 16).**

1.i. Agricultural area of your holding under your control this year (hectares):

State the agricultural area of your holding under your control this year in hectares (see page 16). All land controlled also be declared on your IACS/SAF form.

1.ii.Grassland area of your holding under your control this year (hectares):

State the area in hectares of grassland under your control this year. Grassland is defined as any land on which the vegetation consists predominantly of grass species. This area will be determined based on the crop grown for the majority of the year.

Nitrates Derogation Application Form Section B: Agricultural Area Details

SECTION B: AGRICULTURAL AREA DETAILS

1.
 - i. Agricultural area of your holding under your control in 2011 (hectares)
 - ii. Grassland area of your holding under your control in 2011 (hectares)

61 (A)

56.78 (B)

Completing the application form

Section C

You cannot apply more than 250kg N/ha/year from grazing livestock manure to land. This includes application by the animal itself. Grazing livestock means cattle (with the exception of veal calves), sheep, deer, goats and horses. You may apply for derogation in respect of grazing livestock only, so this figure should not include nitrogen produced from non-grazing livestock such as pigs or poultry. If your **grazing livestock** stocking rate is greater than 250kg N/ha/year, you will have to make alternative arrangements to deal with the surplus. (Method to calculate your livestock manure nitrogen loading can be found in the NAP Guidance Workbook, the online calculator available at www.dardni.gov.uk/onlineservices and at CAFRE training programmes. More information can be found on-line at www.cafre.ac.uk)

Nitrates Derogation Application Form Section C: Grazing livestock manure details (Sample form)

SECTION C: GRAZING LIVESTOCK MANURE DETAILS

2. Estimated Nitrogen produced from grazing livestock manure on your holding in 2011
(kgs)
3. How much Nitrogen from grazing livestock manure do you intend to import onto your holding in 2011
(kgs)?
4. How much Nitrogen from grazing livestock manure do you intend to export from your holding in 2011
(kgs)?

2. Estimated nitrogen produced from grazing livestock manure on your holding this year (kgs).

State the nitrogen in kilogrammes that you predict will be produced from grazing livestock only on your holding this year. Use the amount recorded in the previous year unless you anticipate any substantial change in stocking levels this year.

3. How much nitrogen from grazing livestock manure do you intend to import onto your holding this year (kgs)?

State any nitrogen in kilogrammes from grazing livestock manure in kilogrammes that you predict will be imported onto your holding this year. Remember all farmers in Northern Ireland must keep records of imported manures (Section 1.13 and Annex L of the NAP and Phosphorus Regulations Guidance Booklet 2011-2014). If you do not intend to import any grazing livestock manure onto your holding this year **put a line through this box.**

Completing the application form

4. How much nitrogen from grazing livestock manure do you intend to export from your holding this year (kgs)?

You may choose to export surplus grazing livestock manure in which case state any surplus of nitrogen to be exported this year. Remember all farmers in Northern Ireland must keep records of exported manures (Section 1.13 and Annex L of NAP and Phosphorus Regulations Guidance Booklet 2011-2014). If you do not intend to export any grazing livestock manure from your holding this year **put a line through this box.**

Completing the application form

Section D

You cannot apply more than 170kg N/ha/year from non-grazing livestock manure to land. This includes application by the animal itself. Grazing livestock means cattle (with the exception of veal calves), sheep, deer, goats and horses. Non-grazing livestock should include all other livestock such as pigs and poultry. You must have sufficient land to meet both these limits. If your non-grazing livestock stocking rate is greater than 170kg N/ha/year, you will have to make alternative arrangements to deal with the surplus. (Method to calculate your livestock manure nitrogen loading can be found in the NAP Guidance Workbook, the online calculator available at www.dardni.gov.uk/onlineservices and at CAFRE training programmes. More information about NAP training courses can be found on-line at www.cafre.ac.uk)

However, it should be noted that all of the farm will be subject to all of the conditions of the derogation.

Nitrates Derogation Application Form Section D: Non-grazing livestock manure details (Sample form)

SECTION D: NON-GRAZING LIVESTOCK MANURE DETAILS

5. Estimated Nitrogen produced from non-grazing livestock manure on your holding in 2011 (kgs)
6. How much Nitrogen from non-grazing livestock manure do you intend to import onto your holding in 2011 (kgs)?
7. How much Nitrogen from non-grazing livestock manure do you intend to export from your holding in 2011 (kgs)?

5 Estimated nitrogen produced from non-grazing livestock manure on your holding this year (kgs):

State the nitrogen in kilogrammes that you predict will be produced from non grazing livestock only on your holding this year. Use the amount recorded in the previous year unless you anticipate any substantial change in stocking levels this year. If you do not have non-grazing livestock **put a line through this box.**

Completing the application form

6 How much nitrogen from non-grazing livestock manure do you intend to import onto your holding this year (kgs)?

State any nitrogen in kilogrammes from non-grazing livestock manure that you predict will be imported onto your holding this year. Remember all farmers in Northern Ireland must keep records of imported manures (Annex L of the NAP and Phosphorus Regulations Guidance Booklet 2011-2014). If you do not intend to import any non-grazing livestock manure onto your holding this year **put a line through this box.**

7 How much nitrogen from non-grazing livestock manure do you intend to export from your holding this year (kgs)?

You may choose to export surplus non-grazing livestock manure in which case state any surplus of nitrogen in kilogrammes to be exported this year. Remember all farmers in Northern Ireland must keep records of exported manures (Section 1.14 and Annex L of the NAP and Phosphorus

Regulations Guidance Booklet 2011-2014). If you do not intend to export any non-grazing livestock manure from your holding this year **put a line through this box.**

You should read the leaflet on terms and conditions carefully before signing the declaration/undertaking. By signing this declaration and submitting your application to NIEA, you are accepting that you have understood the conditions attached to the granting of a derogation, that you are eligible to obtain a derogation and that you will meet the terms and conditions relating to the derogation this year.

Nitrates Derogation Application Form Section E: Declaration

SECTION E: DECLARATION/UNDERTAKING TO BE COMPLETED BY APPLICANT

I declare that, to the best of my knowledge, the particulars given by me in this form are correct at this time and that I undertake to comply with all the derogation conditions set out in the summary of the measures attached.

SIGNED: _____ DATE: _____

Completing the application form

Ensure that nitrogen from grazing and non-grazing livestock manure does not exceed the 250kg N/ha/year and 170kg N/ha/year limits.

Using an example of a farm with 100 dairy cows and followers, and a 20,000 broiler unit selling 132,000 birds per annum and exporting 141 tonnes of litter off the farm. Agricultural area is 61 ha.

Land requirements for grazing livestock manure:

(Numbers relate to section C on the Nitrates Derogation Application form)

Estimated Nitrogen produced from grazing livestock manure (2)

+ Imported Nitrogen from grazing livestock (3)

– Exported nitrogen from grazing livestock (4)

divided by 250kg N/ha/year

(11,350 + 0 - 0 divided by 250kg N/ha/year equals a land requirement of 45.4ha)

Land requirements for non-grazing livestock:

(Numbers relate to section D on the Nitrates Derogation Application form)

Nitrogen produced from non-grazing livestock manure (5)

+ Imported nitrogen from non-grazing livestock manure (6)

– Exported nitrogen from non-grazing livestock manure (7)

divided by 170kg N/ha/year

(5095 + 0 - 4230 divided by 170kg N/ha/year equals a land requirement of 5.09ha)

Minimum land requirement for the farm to comply with derogation equals the land requirement for grazing and non-grazing livestock manure (45.4 + 5.09 = 50.49ha)

Agricultural area of the example farm is 61ha and therefore complies with the limits.

If the land area requirement is greater than the actual agricultural area of the farm then steps must be taken to reduce the livestock manure nitrogen.

What happens if the figures in my application form change? Do I have to notify NIEA?

No. However you must ensure that you continue to comply with the terms of the derogation including having 80% grassland and operating at below 250kg N/ha/year grazing livestock manure N and below 170kg N/ha/year non-grazing livestock manure.

What must I do to comply?

Farmers who successfully apply for a derogation must meet all the NAP Regulations requirements including the additional controls in place for derogated farms. These are listed on pages 5-14 of this booklet. The following explains in further detail the additional measures for the derogated farms.

i. 80% of farm in grass

Verified at application stage and again at inspection. IACS / SAF form declarations will be used for verification where appropriate.

ii. Prepare a fertilisation plan by 1 March and maintain on farm

What is a fertilisation plan?

A fertilisation plan must be kept up to date on the farm. This plan is not submitted to NIEA. It must be prepared and made available for inspection on farm by 1 March of the current calendar year.

The fertilisation plan must include the following:

- (1) planned average stock numbers for the year;
- (2) description of housing and storage system;
- (3) volume of livestock manure storage;
- (4) planned livestock manure N and P to be produced on the farm;
- (5) planned areas of grass and other crops to be grown and area noted on farm map;

- (6) N and P requirements of grass and other crops to be grown, in accordance with RB209;
- (7) soil analysis results when available;
- (8) amount and type of organic manure to be imported or exported;
- (9) planned N and P applications from livestock manure over each uniform area of soil type and crop; and
- (10) planned N and P to be applied from chemical and other organic manures over each uniform area of soil type and crop.

An example of a fertilisation plan may be found in Annex A Page 33.

What if my management differs from my plan?

Plans must be revised no later than seven days following any changes in agricultural practices to ensure consistency between plans and actual agricultural practices. NIEA do not need to be contacted if changes are made but always ensure that any change in management does not cause a breach of the NAP Regulations including the derogation controls or the Phosphorus Regulations.

If you do not intend to make significant changes to your farm practice the records for the previous year may form the basis of the current year's plan.

What must I do to comply?

iii. Submit a fertilisation account on or before 1 March for the previous calendar year.

What is a fertilisation account?

The fertilisation account is primarily a summary of the fertiliser (chemical and organic) applied in the previous calendar year and the provision of information required to calculate the farm's P balance. A fertilisation account must be prepared and submitted to be received by NIEA each year on or before 1 March.

Failure to submit a fertilisation account to be received by NIEA by 1 March will result in SFP penalties being applied and may invalidate any application for derogation in the year of submission.

The following information must be included to allow NIEA to assess compliance with the various limits set for the derogated farm.

- N requirement of crops grown;
- N chemical fertiliser usage;
- type and number of livestock;
- quantity and type of organic manure imported and exported;
- the amount of P in agricultural products entering and leaving the farm, for example, concentrates, milk, livestock, eggs, livestock manures, fertilisers, forages and crops (if the amount of P deviates from the standard figures, documentary evidence must be provided); and
- how dirty water is managed.

An example of a fertilisation account may be found in Annex B Page 56.

iv. Derogated farms must not exceed a phosphorus balance of 10kg / ha

What is a P balance and how do I calculate it?

Every derogated farm must not exceed a P balance of 10kg P/ha/year. A P balance is the difference between the amount of P entering and leaving the farm expressed over the agricultural area controlled.

It is calculated by subtracting the kilogrammes of P leaving the farm in product (for example, milk, cull cows, calves, pigs, broilers) from the kilogrammes of P entering the farm in inputs (for example, concentrates or fertiliser) then dividing the difference by the agricultural area controlled in hectares.

The balance includes all inputs and exports from all enterprises on the farm.

The P content of inputs and outputs are found in Annex C Page 69 and a full example in Annex D Page 73. For further assistance in calculating a P balance for your farm see www.dardni.gov.uk/onlineservices

What limits are there on the application of nitrogen fertiliser to grassland?

Please refer to Section 1.6 of the NAP and Phosphorus Regulations Guidance Booklet 2011-2014.

What must I do to comply?

What limits are there on the application of nitrogen fertiliser for crops?

Please refer to Section 1.6 of the NAP and Phosphorus Regulations Guidance Booklet 2011 - 2014.

What limits are there on the application of chemical phosphorus fertiliser?

Please refer to Section 1.6 of the NAP and Phosphorus Regulations Guidance Booklet 2011 - 2014.

Application of manure and fertilisers

Is soil sampling required?

Farmers operating under a derogation must carry out soil sampling and P analysis at least once between 2011 and 2014 for each uniform area of the farm, with regard to crop rotation and soil characteristics. At least one analysis per four hectares of farmland is required.

Taking a soil sample for laboratory testing for nitrogen is not required as the limit for grassland takes into consideration the amount in the soil. Similarly in the case of crops the Soil Nitrogen Supply (SNS) indicates the amount of nitrogen in soil. (Refer to Annex G in the NAP and Phosphorus Regulations Guidance Booklet 2011 - 14).

Land management

Can I apply manure in the autumn before ploughing grass?

Ploughing grass swards after a manure application can lead to poor nutrient uptake from the resulting reseed. To minimise the loss of nutrients, manure should be applied after ploughing only.

This means that on a derogated holding, where the fertilisation plan indicates a proposal to disturb soil as part of grass cultivation, for example ploughing, there must be no application to that parcel of land of any organic manures, including farmyard manure and dirty water, between 15 October in any year and 31 January of the following year.

Can I plough grassland at any time of the year?

No. To minimise the potential for nitrogen leaching, grass swards less than four years old can only be ploughed in spring.

Ploughed grass on all soil types must be followed immediately by a crop with a high nitrogen requirement. This prohibits crops such as peas or beans which have no nitrogen requirement.

Can I grow leguminous or other plants fixing atmospheric nitrogen?

Growing nitrogen fixing plants may result in an excessive amount of nitrogen being applied to grass or crops. Therefore these plants, for example, beans and lucerne, must not be grown. However grassland with less than 50% clover and cereals and peas undersown with grass are allowed.

Inspection and enforcement

Who will be responsible for inspection and enforcement?

NIEA, an agency within the Department of the Environment (DOE), is responsible for carrying out inspection and enforcement of the NAP Regulations including the derogation. NIEA will operate under the guidelines as explained in Section 2 of the NAP and Phosphorus Regulations Guidance Booklet 2011 – 2014.

Who will be inspected?

It is a requirement of the EC Derogation Decision that all farms operating under the derogation will be subject to administrative control.

This administrative control will be carried out by NIEA through checks on the application form and fertilisation accounts submitted to them by every farmer operating under a derogation.

At least 3% of farms who have been granted a derogation will also be subject to an on-farm inspection each year. NIEA will carry out an environmental risk assessment to identify a list of farmers who will be visited under Cross-Compliance. A proportion of farms will also be randomly selected. Notice is normally given of an inspection (see Section 2 of the NAP and Phosphorus Regulations Guidance Booklet 2011-2014).

What happens if my farm is non-compliant?

NIEA will seek to work co-operatively with farmers to secure improved practice on the farm. NIEA acknowledges, however, that unfortunately enforcement action will need to be taken in some cases to ensure compliance. Any enforcement action will be in accordance with the NIEA Enforcement and Prosecution Policy for Environmental Protection which can be found on

www.doeni.gov.uk/niea or you can contact NIEA. See Annex E, page 74.

Compliance with the terms of the Derogation under the Nitrates Directive is a Statutory Management Requirement under Cross-Compliance. Non-compliance with the terms of the derogation is considered a breach of the verifiable standards for this Statutory Management Requirement and may therefore result in a reduction of your Single Farm Payment.

Further information on inspections and enforcement can be found in Section 2 of the NAP and Phosphorus Regulations Guidance Booklet 2011 - 2014.

CAFRE Farm Nutrient Management Calculators

If you need help with the NAP measures on nutrient limits, storage requirements and record keeping, then log onto www.dardni.gov.uk/onlineservices and use the Farm Nutrient Management Calculators which are designed to help you meet the requirements of NAP. There are five Farm Nutrient Management Calculators which are easy to use, available 24 hours per day, secure and confidential.

Livestock Manure Nitrogen Loading Calculator

Calculate the N loading for your farm. Check if you are below the 170kg N/ha/year livestock manure limit or if operating under a derogation the 250kg N/ha/year grazing livestock manure limit.

Livestock Manure Storage Calculator

Calculate the weekly slurry, dirty water, manure production and current storage capacity for your farm. Check if you have the required minimum 22 or 26 weeks storage or how much additional storage is needed.

Livestock numbers are required for the above two calculators. An accurate record of cattle type and numbers kept each year since 2007 can be obtained using the 'Nitrate Animal Count' function on APHIS Online.

Crop Nutrient Recommendation Calculator

This programme will help you to comply with crop nutrient limit requirement limits and if you are operating under a derogation to draw up a fertilisation plan for your farm. It will help you to:

- Determine the N, P₂O₅ and K₂O required by crops;
- Calculate the amount of nutrients supplied by organic manures;

- Select the correct chemical fertiliser and application rate; and
- Retain information required for record keeping.

Although not a requirement of the Regulations this calculator will also provide information in relation to K₂O requirements. Importantly it can be used to help to optimise application rates and so reduce chemical fertiliser costs.

Phosphorus Balance Calculator

Farms operating under a derogation must not exceed a P balance of 10kg P/ha/year. Calculate the P balance for your farm and help manage P inputs and outputs to meet the limit.

N Max for Grassland Calculator

Check that nitrogen applications to the whole grassland area on the farm do not exceed the limits.

CAFRE Training

The College of Agriculture, Food and Rural Enterprise (CAFRE) offer training courses to help farmers. The range of courses includes Nitrates Derogation Training. To register your interest for any of these courses please call CAFRE at 028 9442 6879.

Annex A

Example format of a fertilisation plan

The following pages are an example format of a **fertilisation plan**.

The information can be presented in other formats if preferred, for example a print out from the CAFRE farm nutrient management calculators, available at www.dardni.gov.uk/onlineservices

The fertilisation plan is kept on farm and should be presented if selected for an NIEA inspection.

1 Planned average stock numbers and livestock manure N and P produced on-farm

Table 3: Livestock manure N and P to be produced by dairy cattle per year.

Only complete this table if you keep these livestock.

1. Multiply the planned number of livestock in column (A) by the N produced / head / year column (B). Enter total in column (C).
2. Multiply the planned number of livestock in column (A) by the P produced / head / year column (D). Enter total in column (E).
3. Total the N produced/year in column (C).
4. Total the P produced/year in column (E).

Livestock type	Planned average per year	N produced/ head/year (kg N)	Total N produced (kg/year)	P produced/ head/year (kg P)	Total P produced (kg/year)
Dairy Cattle	(A)	(B)	(C) (A)x(B)	(D)	(E) (A)x(D)
Dairy cow	100	91	9100	16.6	1660
Dairy heifer (over 2 years)	5	54	270	10.1	50.5
Dairy heifer (1-2 years)	30	47	1410	7.9	237
Breeding bull		54		10.1	
Heifer calves (0-12 months) ¹		19		4.7	
Heifer calves (6-12 months) ¹	30	12	360	3.0	90
Heifer calves (0-6 months) ¹	30	7	210	1.7	51
Total N produced from dairy cattle			= 11,350	Total P produced from dairy cattle	= 2088.5

¹Remember to only count calves once. Use either the 0-12 mth category or the 0-6 mth category and the 6-12 month category.
Note: This list is not exhaustive - refer to Regulations for other categories of livestock type.

1 Planned average stock numbers and livestock manure N and P produced on-farm

Table 4: Livestock Manure N and P to be produced by beef cattle per year.

Only complete this table if you keep these livestock.

1. Multiply the planned number of livestock in column (A) by the N produced / head / year column (B). Enter total in column (C).
2. Multiply the planned number of livestock in column (A) by the P produced / head / year column (D). Enter total in column (E).
3. Total the N produced/year in column (C).
4. Total the P produced/year in column (E).

Livestock type	Planned average per year	N produced/ head/year (kg N)	Total N produced (kg/year)	P produced/ head/year (kg P)	Total P produced (kg/year)
Beef cattle	(A)	(B)	(C) (A)x(B)	(D)	(E) (A)x(D)
Suckler cows		54		10.1	
Cattle (over 2 years)		54		10.1	
Cattle (1-2 years)		47		7.9	
Breeding bull		54		10.1	
Bull beef 6-13 months		23		5.8	
Cattle (0-12 months)		19		4.7	
Cattle 6-12 months		12		3.0	
Cattle 0-6 months		7		1.7	
		Total N produced from beef cattle	=	Total P produced from beef cattle	=

Table 5: Livestock manure N and P to be produced by sheep per year.

Only complete this table if you keep these livestock.

1. Multiply the planned number of livestock in column (A) by the N produced / head / year column (B) enter total in column (C).
2. Multiply the planned number of livestock in column (A) by the P produced / head / year column (D) enter total in column (E).
3. Total the N produced in column (C).
4. Total the P produced in column (E).

Livestock type	Planned average per year	N produced/ head/year (kg N)	Total N produced (kg/year)	P produced/ head/year (kg P)	Total P produced (kg/year)
Sheep	(A)	(B)	(C) (A)x(B)	(D)	(E) (A)x(D)
Ewe (over 1 year)		9		1.0	
Ram (over 1 year)		9		1.0	
Lamb (6-12 months)		3.2		0.3	
Lambs (0-6 months)		1.2		0.3	
		Total N produced from sheep	=	Total P produced from sheep	=

Note: This list is not exhaustive - refer to Regulations for other categories of livestock type.

Table 6: Livestock manure N and P to be produced by deer/goats or other grazing livestock per year.

Only complete this table if you keep these livestock.

1. Multiply the planned number of livestock in column (A) by the N produced / head / year column (B). Enter total in column (C)
2. Multiply the planned number of livestock in column (A) by the P produced / head / year column (D). Enter total in column (E)
3. Total the N produced / year in column (C).
4. Total the P produced / year in column (E).

Livestock type	Planned average per year	N produced/ head/year (kg N)	Total N produced (kg/year)	P produced/ head/year (kg P)	Total P produced (kg/year)
Deer	(A)	(B)	(C) (A)x(B)	(D)	(E) (A)x(D)
Deer (red) over 2 years		25		4	
Deer (red) 6 months – 2 years		13		2	
Deer (fallow) over 2 years		13		2	
Deer (fallow) 6 months – 2 years		7		1	
Deer (sika) over 2 years		10		2	
Deer (sika) 6 months – 2 years		6		1	
Goats					
Goats		9		1	
Other livestock					
		Total N produced from deer/goats or other grazing livestock	=	Total P produced from deer/goats or other grazing livestock	=

Table 7: Livestock manure N and P to be produced by horses per year. Only complete this table if you keep these livestock.

1. Multiply the planned number of livestock in column (A) by the N produced / head / year column (B). Enter total in column (C)
2. Multiply the planned number of livestock in column (A) by the P produced / head / year column (D). Enter total in column (E)
3. Total the N produced / year in column (C).
4. Total the P produced / year in column (E).

Livestock type	Planned average per year	N produced/ head/year (kg N)	Total N produced (kg/year)	P produced/ head/year (kg P)	Total P produced (kg/year)
Horses	(A)	(B)	(C) (A)x(B)	(D)	(E) (A)x(D)
Horse > 3 years old		50		9	
Horse 2-3 years old		44		8	
Horse 1-2 years old		36		6	
Horse foal < 1 year old		25		3	
Donkey / small pony		30		5	
		Total N produced from horses	=	Total P produced from horses	=

Table 8: Planned livestock numbers and livestock manure N and P to be produced by pigs per year.

Only complete if you keep these livestock.

1. Select from either Breeding and rearing; or growing and finishing, depending on the system on your farm.
2. Enter the planned number of pigs on the farm for the year in column A, and calculate the total number of pigs planned to be sold in column F.
3. Calculate the total number of pigs planned to be sold per year and select the N and P figure for your rearing system.
4. Multiply the planned average number per year by the N and P produced per head.
5. Total the N produced/year in column (C). Total the P produced/year in column (E).

Livestock type	Breeding and rearing farms ONLY						
	Planned average per year	N produced/ head/year (kg N)	Total N produced (kg/year)	P produced/ head/year (kg P)	Total P produced (kg/year)		
Pigs	(A)	(B)	(C) (A)x(B)	(D)	(E) (A)x(D)		
Boars ²		17.5		4.2			
Maiden Gilts ²		11.1		5.7			
Breeding sows ^{2, *}		15.9		8.7			
		Total N		Total P			
Use the table below to calculate the planned number of pigs sold per year and calculate the N and P produced from these pigs.							
Total Pigs sold	Average no. sows	Planned average no. pigs sold per sow/year (F)	Planned total no pigs sold per year	Select N produced/ head (kg N)**	Total N produced per year (kg N)	Select P produced/ head (kg P)	Total P produced (kg P/year)
				Total N		Total P	

Add the total N and total P from breeding and pigs sold together.

Notes: ² Average number on the unit at any one time and not the total number entering the herd. * N produced / head / year by breeding sows includes the litter to 7 kg. ** Select the N and P values depending on the weaning age and sale weight of pigs on your unit.

* Select the N and P values depending on the weaning age and sale weight of pigs on your unit.

	Sale weight	N produced/head (kg N)	P produced /head (kg P)
Weaned at 3- 4 weeks	18kg (7 ¹ / ₂ weeks)	0.09	0.08
	35kg (11 weeks)	0.38	0.23
	105kg (23 weeks)	2.38	1.09
Weaned at 7 weeks	35kg (11 weeks)	0.29	0.15
	105kg (23 weeks)	2.30	1.00

Example:

Select 2.38 (kg N) and 1.09 (kg P) if the weaning age is four weeks and sale weight approximately 105kg.

Growing and finishing farms only – select the weight range for your finishing system

Livestock type	Growing and finishing farms ONLY				
	Planned average number to be sold per year	N produced/ head/year (kg N)	Total N produced (kg/year)	P produced/ head/year (kg P)	Total P produced (kg/year)
Pigs	A	B	(C) (A)x(B)	(D)	(E) (A)x(D)
18kg-35kg		0.29		0.15	
18kg – 105kg		2.30		1.00	
35kg – 105kg		2.00		0.85	
		Total N from growing and finishing pig farms		Total P from growing and finishing pig farms	

Table 9: Livestock manure N and P to be produced by poultry per year.

Only complete this table if you keep these livestock.

1. Depending on the poultry type, enter either the number on your farm throughout the calendar year or the capacity of the unit in column A.
2. Multiply the number of birds by the N and P produced per 1000 birds.
3. Total the N produced / year in the appropriate column.
4. Total the P produced / year in the appropriate column.

Livestock type	Planned no. of birds produced per year	N produced/ 1000 birds (kg N)	Total N produced (kg/year)	P produced/ 1000 birds (kg P)	Total P produced (kg/year)
Poultry	(A)	(B)	(C) (A)x(B)	(D)	(E) (A)x(D)
Broilers (1000s) ³	132	38.6	5095.2	28.7	3788.4
Male turkeys (1000s) ⁴		611		254	
Female turkeys (1000s) ⁵		363		104	
Fattening ducks (1000s) ⁶		139		65	
		Total N kg from poultry	= 5095.2	Total P kg from poultry	= 3788.4

(continued)

Notes

³ Broilers (1000), data based on 255kg N/year, output per 6.6 crops /year, 40 day cycle (73% occupancy).

⁴ Male turkeys (1000), data based on 1284kg N/year, output per 2.1 crops/year, 140 day cycle (80% occupancy).

⁵ Female turkeys (1000), data based on 871kg N/year, output per 2.4 crops/year, 120 day cycle (80% occupancy).

⁶ Fattening ducks (1000), data based on 834kg N/year, output per 6 crops, 50 day cycle (85% occupancy).

Livestock type	Planned no. of birds produced per year	N produced/ 1000 birds (kg N)	Total N produced (kg/year)	P produced/ 1000 birds per week (kg P)	Total P produced (kg/year)
Poultry	(A)	(B)	(C) (A)x(B)	(D)	(E) (A)x(D)
Broiler breeders ⁷ (1000s) 0-18 wks		5.9		2.1	
Broiler breeders ⁸ (1000s) 18-60 wks		20.8		7.6	
Broiler breeders ⁹ (1000s) 0-60 wks		18.6		6.8	
Pullets (1000s) ¹⁰		5.7		2.1	
Layers (1000s) ¹¹		11.7		4.6	
		Total N from poultry		Total P from poultry	

Notes

⁷ Broiler breeders (1000), 0 – 18 weeks data based on 142kg N/year, output per 18 week cycle (46% occupancy).

⁸ Broiler breeders (1000), 18 – 60 weeks data based on 945 N/year, output per 42 week cycle (87.5% occupancy).

⁹ Broiler breeders (1000), 0 – 60 weeks data based on 878kg N/year, output per 60 week cycle (91% occupancy).

¹⁰ Pullets (1000), data based on 113kg N/year, output per 17 week cycle (38% occupancy).

¹¹ Layers (1000), data based on 607kg N/year, 98% occupancy.

Table 10: N and P produced from livestock manure.

Transferring the answers from the relevant pages enter the amount of livestock manure N and P from each of the enterprises on your farm.

	N produced (kg/year)	P produced (kg/year)
Dairy cattle livestock manure (total from page 26)	11,350	2,088.5
Beef cattle livestock manure (total from page 27)	+	+
Sheep livestock manure (total from page 28)	+	+
Deer and goat livestock manure (total from page 29)	+	+
Horse livestock manure (total from page 30)	+	+
Pig livestock manure (total from page 31 and 32)	+	+
Poultry livestock manure (total from page 33 and 34)	+ 5,095.2	+ 3,788.4
	= 16,445.2	= 5,876.9
Total for all enterprises	(Total N produced kg/year)	(Total P produced kg/year)

2 Organic manure planned to be imported and exported

1. Only complete this part if manure is to be imported/exported to or from your farm.
2. Select the type of slurry/manure and dry matter (DM) and insert the volume. Typical DM is 6% for cattle slurry and 4% for pig slurry.

Table 11: Planned imported and exported slurries

Slurry type	Imported volume (m ³)	Exported volume (m ³)
Beef cattle slurry – 2%DM		
Beef cattle slurry – 6%DM		
Beef cattle slurry – 10%DM		
Dairy cattle slurry – 2%DM		
Dairy cattle slurry – 6%DM		
Dairy cattle slurry – 10%DM		
Pig slurry – 2%DM		
Pig slurry – 4%DM		
Pig slurry – 6%DM		
Separated slurry		
Other		

Table 12: Planned imported and exported manures

Manure type	Imported quantity (tonnes)	Exported quantity (tonnes)
Broiler/turkey manure – 60%DM		141
Cattle FYM – 25% DM		
Duck manure – 25% DM		
Layer manure – 30% DM		
Pig FYM – 25% DM		
Other		

1m³= 220 gallons

3 Map of farm

Provide a farm map which shows the following:

- the field areas;
 - crops grown in each field;
 - Previous crop grown for crops other than grass;
 - SNS level for crops other than grass (Refer to the NAP and Phosphorus Regulations Guidance Booklet 2011 – 2014 annex G)
- or alternatively a table as below could be completed along with the farm map.

Table 13:

Farm Survey Number	Field Number	Field Area (ha)	Crop grown this year	Previous crop	Soil Nitrogen Status (arable fields only)
7/1/526	1	3.06	Grass	Grass	-
7/1/526	2	4.00	Grass	Grass	-
7/1/526	3	2.89	Grass	Grass	-
7/1/526	4	2.68	Grass	Grass	-
7/1/526	5	3.80	Grass	Grass	-
7/1/526	6	2.61	Grass	Grass	-
7/1/526	7	2.50	Grass	Grass	-
7/1/526	8	2.90	Grass	Grass	-
7/1/526	9	2.96	Grass	Maize	-
7/1/526	10	3.82	Grass	Barley	-

(continued)

3 Map of farm (continued)

Farm Survey Number	Field Number	Field Area (ha)	Crop grown this year	Previous crop	Soil Nitrogen Status (arable fields only)
7/1/526	11	4.10	Grass	Grass	
7/1/526	13	3.22	Grass	Winter Wheat	
7/1/526	14	6.53	Grass	Grass	
7/1/526	15	3.56	Grass	Grass	
7/1/526	16	3.15	Grass	Grass	
7/1/526	17	4.22	Winter Wheat	Grass	
7/1/526	18	2.3	Grass	Grass	
7/1/526	19	2.7	Grass	Grass	

4 Planning the amount of nitrogen to be applied to grassland

This will estimate the amount of N you are likely to apply to the grassland area over the year.

If in practice this changes, plans should be amended within seven days.

Column (A)	Enter the total area of grassland.
Column (B)	Enter the maximum nitrogen (N) requirement for your grassland area.
Column (C)	Enter the type(s) of organic manure to be applied, do not include livestock manure.
Column (D)	Enter in the amount of this organic manure to be applied to the grassland area.
Column (E)	Enter the available nitrogen content of these organic manures (the total N content can be derived from the import licence) by calculating the % availability that is 40% according to the year applied. (NAP and Phosphorus Regulations Guidance Booklet 2011 – 2014, annex F). For example, sewage sludge with a total nitrogen of 3kg of N per m ³ has 0.9kg N available nitrogen per m ³ .
Column (F)	Multiply columns D and E to give total available nitrogen to be applied in organic manures.
Column (G)	Enter the type(s) of fertiliser to be sown on grassland during the year.
Column (H)	Enter the total amount of fertiliser product to be applied for each fertiliser type(s).
Column (I)	Calculate the amount of N to be applied for all type(s) of fertiliser. For example if 25,000 kgs of 27:0:0 is to be applied, Kg of N to be applied = $27 \times 25,000 \div 100 = 6750$ kg of nitrogen.
Column (J)	Add column (F) and (I) to give total nitrogen to be applied.
Column (K)	Divide total in (J) by whole area of grassland (A). Application to be less than requirement in column (B).

(continued)

4 Planning the amount of nitrogen to be applied to grassland (continued)

Table 14: Nitrogen planning sheet for grassland

Crop details		Organic manure excluding livestock manures (for example sewage sludge)				Chemical N fertiliser		Organic and Chemical N fertiliser		Total N to be applied per ha (kg) (J) divided by (A)
Area of grassland on the farm (ha)	N requirement of grassland (kg/ha) (As per page 21)	Type of manure	Total amount of manure to be applied to <u>whole</u> area of grass (kg)	Amount of available N per m ³ or t Annex F*	Total amount of N available to <u>whole</u> area of grass (kg) (D) x (E)	Type of N fertiliser to be applied	Total amount of fertiliser product to be applied to <u>whole</u> area (kg)	Total amount of N to be applied to <u>whole</u> area (kg)	Total amount of N to be applied over <u>whole</u> area (kg) (F) + (I)	
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)
56.78	272	None	None	None	None	27:0:0	25,000	6,750	6,750	
						27:6:12	1,600	432	432	
						46:0:0	10,000	4,600	4,600	
								Total	11,782	208

Annex F* refers to Annex F in the NAP and Phosphorus Regulations Guidance Booklet 2011 - 2014.

5 Planning the amount of Nitrogen to be applied on crops other than grass

In contrast to grassland all organic manures must be taken into consideration including livestock manures.

Column (A)	Enter crop type from Annex G of the NAP and Phosphorus Regulations Guidance Booklet 2011 - 14.
Column (B)	For each crop area on the farm with the same cropping history enter the Soil Nitrogen Supply (SNS) index as determined from Annex G of the NAP and Phosphorus Regulations Guidance Booklet 2011 – 2014.
Column (C)	For each crop to be grown on the farm, enter the area of the field(s) with the same cropping history and associated SNS index .
Column (D)	Enter the maximum nitrogen requirement for each crop area (Annex G of the NAP and Phosphorus Regulations Guidance Booklet 2011 - 2014) taking into consideration the SNS index stated in column B.
Column (E)	Enter the type(s) of organic manure to be applied (including livestock manure).
Column (F)	Enter in the amount of manure to be applied.
Column (G)	Enter the amount of nitrogen available in m ³ or tonnes of the manure to be applied (Annex F of the NAP and Phosphorus Regulations Guidance Booklet 2011 - 2014).
Column (H)	Multiply columns F and G to give total available nitrogen to be applied in organic manures.
Column (I)	Enter the type(s) of fertiliser to be sown.
Column (J)	Enter the total amount of fertiliser product to be applied for each fertiliser type(s).
Column (K)	Total up the amount of nitrogen to be applied for all type(s) of fertiliser applied. For example if 1600kg of 27:0:0 is to be applied, Kg of N to be applied = $27 \times 1600 \div 100 = 432$ kg of nitrogen.
Column (L)	Add column (H) and (K) to give total nitrogen to be applied to the area.
Column (M)	Divide total in (L) by area of crop (C). Application to be less than requirement in column (D).

5 Planning the amount of Nitrogen to be applied on crops other than grass (continued)

Table 15: Nitrogen planning sheet for crops

Crop details				Organic manure Including livestock manures				Chemical N fertiliser			Organic and Chemical N fertiliser	Total N to be applied per ha (kg)
Crop	SNS	Total Area of crop (ha)	Crop N requirement (kg/ha) Annex G*	Type	Total amount of manure to be applied to <u>field(s)</u> (m ³ or t)	Amount of N available in m ³ or t Annex F*	Total amount of N available to <u>field(s)</u> (kg) (F) x (G)	Type of N fertiliser to be applied	Total amount of fertiliser product to be applied to <u>field(s)</u> area (kg)	Total amount of N fertiliser to be applied to <u>field(s)</u> (kg)	Total amount of N to be applied over <u>field(s)</u> (kg) (H) + (K)	Total (K) divided by (C)
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)
Winter Wheat	3	4.22	160	Broiler litter	9t	9	81	46:0:0	400	184	265	63
								27:6:12	300	81	81	19
										Total	346	82

* refers to Annexes F and G in the NAP and Phosphorus Regulations Guidance Booklet 2011 – 2014.

6 Planning the amount of phosphorus to be applied to crops including grass

All organic manures, including livestock manures, must be taken into consideration.

Column (A)	Identify the crop to be grown. A list of the main crops and their requirements are listed in Annex H of the NAP and Phosphorus Regulations Guidance Booklet 2011 - 2014.
Column (B)	Enter area of field.
Column (C)	Enter Soil P index from soil analysis if available. (If not available then assume an index of 2).
Column (D)	According to the soil index found on soil analysis results enter the phosphorus requirement in kg/ha from Annex H of the NAP and Phosphorus Regulations Guidance Booklet 2011 - 2014.
Column (E)	Enter the type(s) of livestock manure to be applied to these areas as per Annex F of the NAP and Phosphorus Regulations Guidance Booklet 2011 - 2014.
Column (F)	Enter in the amount of manure to be applied after soil sample taken in m ³ or tonnes.
Column (G)	Enter the P (P ₂ O ₅) content of the manure to be applied from Annex F of the NAP and Phosphorus Regulations Guidance Booklet 2011 2014.
Column (H)	Multiply columns (F) and (G) to give total P (P ₂ O ₅) to be applied in organic manures.
Column (I)	Enter the type of chemical fertiliser to be applied.
Column (J)	Enter the amount of chemical fertiliser to be applied per ha.
Column (K)	Enter the amount of chemical phosphorus to be applied. For example type of fertiliser to be applied was 27:6:12, this contains 6% P (P ₂ O ₅). If 300kg is to applied per ha then the amount of P (P ₂ O ₅) would be $6 \times 300 \div 100 = 18\text{kg}$ per ha.
Column (L)	Add column (H) and (K) to give total phosphorus to be applied per ha and divide by the area of the field (B) to calculate the application rate per ha.

(continued)

6 Planning the amount of phosphorus to be applied (continued)

Table 16: Planning phosphorus sheet

Grass / Crop details				Organic manure (includes livestock manures)					Chemical P fertiliser			Total P (P ₂ O ₅) to be applied per ha ((H)+(K)) divided by (B)
Field No.	Crop	Area of crop (ha)	Soil index (from analysis)	P (P ₂ O ₅) requirement by crop kg/ha according to soil index Annex H*	Type of organic manure to be applied after soil sample taken Annex F*	Total amount of organic manure to be applied (m ³ or t)	P (P ₂ O ₅) content of organic manure to be applied (kg/m ³ or kg/t) Annex F*	Total amount of P (P ₂ O ₅) supplied to crop in organic manure (F) x (G)	Type of fertiliser product to be applied	Total amount of fertiliser product to be applied (kg)	Total amount of P (P ₂ O ₅) to be applied (I) x (J)	
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)
1,3,4,5,6,7,9	Grazing	20.5	2	No requirement	None	None	None	None	None	None	None	0
2	Grazing	4	1	40	Cow slurry	35m ³	1.2	42	None	None	None	11
8,10,11,13,14,15,16	1st Cut silage	27.28	2	No requirement	Cow slurry	800m ³	1.2	960	None	None	None	35
11,14	Grass reseed	10.63	1	80	Broiler litter	30t	25	750	None	None	None	71

(continued)

6 Planning the amount of Phosphorus to be applied (continued)

Planning phosphorus sheet												
Grass / Crop details				Organic manure (includes livestock manures)					Chemical P fertiliser			Total P (P ₂ O ₅) to be applied per ha ((H)+(K)) divided by (B)
Field No.	Crop	Area of crop (ha)	Soil index (from analysis)	P (P ₂ O ₅) requirement by crop kg/ha according to soil index Annex K*	Type of organic manure to be applied after soil sample taken Annex E*	Total amount of organic manure to be applied (m ³ or t)	P (P ₂ O ₅) content of organic manure to be applied (kg/m ³ or kg/t) Annex E*	Total amount of P (P ₂ O ₅) supplied to crop in organic manure (F) x (G)	Type of fertiliser product to be applied	Total amount of fertiliser product to be applied (kg)	Total amount of P (P ₂ O ₅) to be applied (I) x (J)	
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)
8,10,13,15,16	2nd Cut silage	16.65	2	No requirement	Cattle Slurry	150m ³	1.2	180	None	None	None	11
17	Winter Wheat	4.22	2	60	Broiler litter	9t	25	225	27:6:12	300	18	58

m³ = 220 gallons

1 hectare=2.47 acres

* refers to Annexes F and H in the NAP and Phosphorus Regulations Guidance Booklet 2011 – 2014.

NOTE: Where no chemical P fertiliser has been applied, there is no legal requirement to demonstrate a crop requirement for phosphorus from livestock manures. You are required to keep a record of applications of organic manures. When applying nutrients to grass or crops remember to consider all nutrients such as potash and sulphur.

7 Description of animal housing

What type of animal housing is on your farm?

Slurry based

Straw bedded

If other please specify

8 Description and volume of manure storage

Table 17: Storage capacity of rectangular tanks/lagoons/middens

Tank	Description	Length l (m)	Breadth b (m)	Adjusted Depth d (m) (Depth – freeboard) ⁽ⁱ⁾	Volume of facilities (l x b x d) (m ³)
1	Main Cow house	25	4	1.8	180
2	Feeding area	25	8	1.8	360
3	Heifer house	15	4	1.8	108
4	Silo tank	8	3	1.5	36
5	Farm yard	30	4	2.1	252
6	Midden	15	8	1.8	216
Total capacity of rectangular tanks and lagoons/ middens					1152m ³

Table 18: Storage capacity of above ground stores

Tank	Description	Radius rad (m)	Adjusted height h (m) (Height – freeboard) ⁽ⁱ⁾	Volume of facilities for slurry =3.14 x rad x rad x h (m ³)
1	Yard	7	3	462m ³
2				
Total capacity of above ground circular stores				462m ³

⁽ⁱ⁾ Freeboard is the term given to the unfilled depth (safety margin) at the top of a slurry or effluent tank or compound. Freeboard allowances are 750mm for earth bank lagoons and 300mm for all other structures. Freeboard is not a legal requirement for structures which are exempt under the SSAFO Regulations (structures completed before 1 December 2003, unless substantially reconstructed). It is, however, considered best management practice to adhere to freeboard requirements in all structures.

Annex B

The following pages are an example format of a **fertilisation account**.

The information can be presented in other formats if preferred. Fertilisation accounts must be submitted to be received by NIEA on or before 1 March of the following year. Failure to submit an account by that date will result in penalties being applied to SFP and will invalidate an application for derogation in that year.

1 Area of crops

Please refer to farm map from previous year's fertilisation plan noting crop areas.

Table 19: Crop type, area and N requirement

Crop Grown	Area Grown (ha)	N Requirement * (Kg/ha)
Grassland	56.78	272
Winter wheat	4.22	160

* N requirement for various crops can be found in Annex G of the NAP and Phosphorus Regulations Guidance Booklet 2011 – 2014.

2 Livestock numbers

Table 20: Livestock Type and average Number.

Please refer to livestock numbers from previous year's fertilisation plan.

Stock type as per fertilisation plan	Average numbers per fertilisation plan for previous year
Dairy cows	100
0-1 cattle	30
1-2 cattle	30
Cattle over 2 years	5
Broilers('000)	132

* If keeping calves/lambs for part year use either 0-6 or 6-12 month categories.

3 Imported and exported organic manures (from previous year's fertilisation plan)

Table 21 & 22: Details of imported and exported slurry or manure.

Please refer to previous year's fertilisation plan.

Slurry type/ Solid manure type	Imported volume (m ³ or t)	Exported volume or quantity (m ³ or t)
Broiler litter		141t

4 Chemical fertiliser details

The tonnage and N and P content of all chemical fertiliser stocks on 1 January and 31 December. The tonnage and N and P content of chemical fertiliser imported in and exported off the farm during the calendar year.

Table 23: Chemical fertiliser stock on 1 January 2011.

Fertiliser type for example 25:5:5			Quantity (tonnes)
N	P	K	
46	0	0	1.0

Table 24: Chemical fertilisers (purchased/imported and sold/exported) during 2011.

Date	NPK Content	Amount purchased or imported on to farm (tonnes)	Amount sold or exported off farm (tonnes)
9/2/2011	27:0:0	25.0	
11/3/2011	46:0:0	10.4	
12/3/2011	27:6:12	1.9	

Table 25: Chemical fertiliser stock on 31 December 2011

Fertiliser type for example 25:5:5			Quantity (tonnes)
N	P	K	
46	0	0	1.0

5 Dirty water management

How is your dirty water managed?

Stored with slurry

Stored separately

If other please specify _____

6 Agricultural products that contain P imported on and exported off the farm

List any agricultural products containing P that are purchased / imported or sold / exported off the farm. This will allow NIEA to calculate if you have complied with the **10kg P/ha/year limit** P Balance for your farm for the year.

Standard P contents of common agricultural products are shown in Annex C, Table 32.

You can access the P Balance Calculator at www.dardni.gov.uk/onlineservices. If using the P Balance Calculator you can print the “Detailed Balance Summary”. Again this can be submitted with the rest of your Fertilisation Account.

Notes

Inputs include:

- P in chemical fertiliser purchased / imported (quantity and P content)
- P in feedstuffs purchased / imported onto farm (quantity and P content)
- The P content of concentrates is taken as 5.8kg per tonne or 0.58%. If you deviate from this you must submit documentation showing the P content. Failure to submit will mean that the typical value will be used P in any organic manure imported onto farm (quantity and P content)

Outputs include:

- P in produce sold / exported off the farm, e.g. meat, milk, crops
- P exported in organic manures (quantity and P content)

P balance	=	Inputs – Outputs
for the calendar year		<hr style="width: 100%; border: none; border-top: 1px solid black; margin-bottom: 5px;"/> Controlled agricultural area

6 Agricultural products that contain P imported on and exported off the farm (continued)

Step 1 – INPUTS

INPUTS - Chemical fertilisers

The purchased / imported fertiliser has already been entered in at page 60. This will be used by NIEA to check compliance.

INPUTS - Imported organic manures

The imported organic manures has already been entered in page 59. This will be used by NIEA to check compliance.

INPUTS – Table 26 Purchased feedstuffs which includes concentrates / straights / silage / straw / hay

(Do not include home grown feedstuffs)

Feedstuff type*	Amount purchased per year (t)	Phosphorus content** (kg/t)
Dairy cow concentrates	250	5.8
Heifer concentrates	30	5.5
Broiler concentrates	475	5.0

*The P content of other feedstuffs may be found in annex C, page 69.

**The standard total P content is 0.58% or 5.8kg per tonne for concentrates. If you purchased a concentrate with a lower P content you must supply documentation from your feed supplier to demonstrate the P content fed. Evidence should include a letter / invoice from the meal supplier containing:

- your name and address
- the P content of the meal and dated

If you have purchased / imported different types of feed the documentation must contain the tonnage and P content of each type. In the absence of a letterhead the note should be signed by the supplier together with their contact details. (See example A)

6 Agricultural products that contain P imported on and exported off the farm (continued)

Example A. An example of a note from a meal supplier if you are deviating from the standard 5.8kg P per tonne of concentrates

Inshalleen Mills		Ballymills
		Co. Tyrone
		BT2 9ZZ
		4/1/10
John Smith		
1 Bigfarm Road		
Ballyhome		
BT2 7AG		
Deliveries for the period 1 January 2009 to 31 December 2009		
120 tonnes of supreme dairy mix feed with a P content of 0.45%		
100 tonnes of summer grazing mix feed with a P content of 0.5%		

(To convert from %P to kg/t multiply the % by 10)

6 Agricultural products that contain P imported on and exported off the farm (continued)

Table 27: Livestock bought in (both columns must be completed)

Livestock type	Number bought in year	Total Liveweight of livestock (kg)
Dropped calves (50kg)		
Cattle		
Cattle		
Cattle		
Sheep/lambs		
Sheep/lambs		
Pigs		
Pigs		
Pigs		
Other please specify		

6 Agricultural products that contain P imported on and exported off the farm (continued)

Step 2 - P Outputs

OUPUTS – Table 28: Crop produce sold / exported off farm

Crop produce type	Amount sold per year (t)
Silage	
Hay	
Straw	
Barley	
Potatoes	
Wheat	
Oats	
Other please specify	

OUTPUT - Exported organic manures

The exported organic manures already entered in page 59 will be used by NIEA to check compliance.

OUTPUT – Table 29: Livestock produce sold / exported off farm

Livestock produce type	Amount / number sold
Milk (litres)	600,000
Wool (t)	
1000 Broilers	132
1000 Broiler breeders 0-18 weeks	
1000 Broiler breeders 18-60 weeks (including eggs)	
1000 Broiler breeders 0-60 weeks (including eggs)	
1000 Layers (including eggs)	
1000 Pullets	
1000 Turkeys male	
1000 Turkeys female	
1000 Ducks	
Other	

6 Agricultural products that contain P imported on and exported off the farm (continued)

OUTPUT – Table 30: Livestock leaving the farm (both columns must be completed)

Livestock type	Number sold in year	Total liveweight of livestock* (kg)
Dropped calves (50kg)	50	2,500
Cattle	30	15,000
Cattle	5	3,000
Cattle		
Sheep/lambs		
Sheep/lambs		
Pigs		
Pigs		
Pigs		
Other please specify		

*Include fallen animals

6 Agricultural products that contain P imported on and exported off the farm (continued)

Table 31: Recommended record sources of agricultural products.

Agricultural product	Recommended record source
Milk	Milk cheque details
Livestock Cattle	Herd record details
Livestock sheep	Flock record details
Livestock Pig	Herd register/management records
Livestock Poultry	Industry flock records
Fertiliser	Fertiliser invoices/fertiliser account
Concentrates	Invoices. (Documentation showing P content if deviating from standard figures must be submitted with your fertiliser account)
Imported/ exported manures	Amounts and P content of manures imported and exported
Crop products such as hay, straw, potatoes	Invoices from seller or purchaser

A P balance does not have to be calculated but to ensure compliance it is advisable for farmers to calculate their own position. A list of agricultural products, their P contents and an example of how a P balance is calculated is outlined in annex C and D.

In addition a Phosphate Balance Calculator is available on the website www.dardni.gov.uk/onlineservices

1 P Content for some agricultural products

Table 32	P content (kg per unit)
1t Poultry concentrate (or use actual declared figures)	5.0
1t Pig concentrate (or use actual declared figures)	4.8
1t Ruminant concentrate (or use actual declared figures)	5.5
1t Concentrates (or use actual declared figures)	5.8
1 litre milk	0.001
Dropped calf (50kg)	0.33
Cattle 100kg	0.66
Cattle 200kg	1.32
Cattle 300kg	1.98
Cattle 400kg	2.64
Cattle 500kg	3.30
Cattle 600kg	3.96
Cattle 700kg	4.62
Cattle 800kg	5.28
Cattle 900kg	5.94
Cattle 1000kg	6.60
Pigs/sows per 100kg	0.5
Lambs/sheep per 100kg	0.54

(continued)

1 P Content for some agricultural products (continued)

	P content (kg per unit)
Wool/tonne	0.4
*1000 broilers	12.0
*1000 broiler breeders 0-18 weeks	11.4
*1000 broiler breeders 18-60 weeks (eggs included)	33.5
*1000 broiler breeders 0-60 weeks (eggs included)	44.9
*1000 turkeys male	34.6
*1000 turkeys female	31.7
*1000 ducks	11.4
*1000 pullets	7.9
Eggs from 1000 layers (including eggs)	42.48
1 tonne soya	6.8
1 tonne sunflower	9.3
1 tonne gluten	9.6
1 tonne citrus	1.0
1 tonne wheat distillers	7.7
1 tonne corn distillers	7.7
1 tonne peas	4.4
1 tonne palm kernel	6.3

* Figures take into consideration the P in stock entering and leaving the farm.

(continued)

1 P Content for some agricultural products (continued)

	P content (kg per unit)
1 tonne pollard	10.0
1 tonne soya hulls	1.4
1 tonne sugar beet	1.0
1m ³ Dairy slurry 2% DM	0.26
1 m ³ Dairy slurry 6% DM (typical)	0.52
1 m ³ Dairy slurry 10% DM	0.87
1 m ³ Beef slurry 2% DM	0.26
1 m ³ Beef slurry 6% DM (typical)	0.52
1 m ³ Beef slurry 10% DM	0.87
1 m ³ Pig slurry 2% DM	0.44
1 m ³ Pig slurry 4% DM (typical)	0.87
1 m ³ Pig slurry 6% DM	1.31
1t Broiler/turkey litter	10.91
1t Layer manure	5.67
1t Cattle FYM	1.53
1t Sheep FYM	0.87
1t Pig FYM	3.05
1t Duck manure	2.40

* Figures take into consideration the P in stock entering and leaving the farm.

(continued)

1 P Content for some agricultural products (continued)

	P content (kg per unit)
1t Fertiliser	Multiply the %P content by 4.36
Separated cattle slurries (liquid portion)	
Strainer box	0.13
Weeping wall	0.22
Mechanical separator	0.52

* Figures take into consideration the P in stock entering and leaving the farm.

1 Example of a calculated P balance (For a 60ha, 100 cow dairy farm with 132,000 broilers per year)

Table 33:	Amount	P content (kg per unit)	Kg P In (P bought or imported)	Kg P Out (P sold or exported)
Fertiliser type	-	-	-	-
Fertiliser 27:6*:12	1.9t	(6 X 4.36) 26.16	(1.9 x 26.16) = 50kg	-
Concentrates**	-	-	-	-
Concentrates dairy cow	250t	5.8	(250 x 5.8) = 1,450kg	-
Concentrates heifer	30t	5.5	(30 x 5.5) = 165kg	-
Concentrates broilers	475t	5.0	(475 x 5.0) = 2,375kg	-
Other products	-	-	-	-
Litres of milk sold	600,000	0.001	-	(600,000 X 0.001) = 600kg
Dropped calves sold	50	0.33	-	(50 x 0.33) = 17kg
Cattle 500 kg sold	30	3.33	-	(30 x 3.33) = 100kg
Dairy cows 600 kg bought	5	3.96	(5 x 3.96) = 20kg	-
Broilers (1000)	132	12	-	(132 X 12)= 1,584kg
Exported broiler litter	141t	10.91	-	(141x 10.91) = 1,538kg
		Totals	4,060kg A	3,839kg B
		P balance (A-B)	(4,060kg – 3,839kg) +221kg	
	(P Balance / controlled agricultural area)		(221kg/61ha)+3.6kg	

*(multiply P₂O₅ % level on fertiliser bag by 4.36 to convert to kg P in 1 tonne)

** (every 0.1% P in a ration equates to 1kg P/t)

This is below the P balance limit of +10kg/ha/year therefore compliant with this aspect of the derogation.

1 Contact Details

Department of Agriculture and Rural Development (DARD)

Internet: www.dardni.gov.uk

Environment

For advice about the Nitrates Action Programme 2011-2014 and Phosphorus Regulations.

Tel. No.

0845 30 44 502

Education and Training

Education and training courses provided by College of Agriculture, Food and Rural Enterprise (CAFRE).

Tel. No.

0845 30 44 501

DARD Corporate Services

Textphone for people with hearing difficulties.

0845 30 44 510

0845 30 44 511

Calls from non-UK numbers or networks/international calls

Tel. No.

+44 (0)28 9037 8418

CAFRE Farm Nutrient Management Calculators available on-line at www.dardni.gov.uk/onlineservices are designed to help you meet the requirements of the NAP.

1 Contact Details (continued)

Department of the Environment (DOE)

Northern Ireland Environment Agency (NIEA)

Internet: www.doeni.gov.uk/niea

Water Management Unit

17 Antrim Rd, Lisburn, BT28 3AL

Tel. No.

General Enquiries

028 9262 3100

Nitrates Regulations

028 9262 3184

SSAFO Regulations

028 9262 3102

Groundwater Authorisations

028 9262 3445

Sewage Sludge to Land

028 9263 3445

Water Pollution Hotline

(A 24-hour confidential hotline for reporting pollution incidents.)

0800 80 70 60

Fax Number

028 9262 3011

Land Resource Management Unit

Klondyke Building, Cromac Avenue,
Gasworks Business Park, Lower Ormeau Road, Belfast, BT7 2JA

028 9056 9360

Waste Management Exemptions Queries

028 9056 9361

Registration of Carrier's Queries

028 9056 9389

Water Appeals

028 9024 4710

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