

Regulatory Impact Assessment – FINAL

The Nitrates Action Programme Regulations (Northern Ireland) 2014 and associated Regulations



Department of the
Environment
www.doeni.gov.uk



Department of
**Agriculture and
Rural Development**
www.dardni.gov.uk

AN ROINN

**Talmhaíochta agus
Forbartha Tuaithe**

MÁNNYSTRIE O

**Fairms an
Kintra Fordèrin**

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Contact point

For further information please contact:

Dr Fiona Wilson, Water Policy Team, Regulatory and Natural Resources Policy Division,
Department of the Environment, 6th Floor, Goodwood House, 44-58 May Street, Belfast,
BT1 4NN

E-mail: fiona.wilson@doeni.gov.uk

or

Mrs Siobhan Bowers, Environmental Policy Branch, Department of Agriculture and Rural
Development, Dundonald House, Newtownards Road, Belfast, BT4 3SB

E-mail: siobhan.bowers@dardni.gov.uk

1. Title of Proposal

The Nitrates Action Programme Regulations (Northern Ireland) 2014 and associated Regulations.

2. Purpose and Intended Effect of Measure

(i) The Objective

The Nitrates Directive (91/676/EEC) (the Directive) aims to improve water quality by protecting water against pollution caused by nitrates from agricultural sources. In particular, it promotes better management of animal manures, chemical nitrogen fertilisers and other nitrogen-containing materials spread onto land. The introduction of the Nitrates Action Programme Regulations (Northern Ireland) 2014 will ensure continued implementation of the Directive in Northern Ireland.

(ii) The Background

The Directive requires EU Member States to set out action programmes to reduce nitrates from agricultural sources entering the aquatic environment and address both high nitrate levels in surface and groundwaters and eutrophication in surface waters. The Directive allows Member States to either designate discrete areas of land as Nitrate Vulnerable Zones (NVZs) or establish an action programme to be applicable to the whole territory.

Northern Ireland has a widespread problem of eutrophication of surface waters and a large proportion of this nutrient enrichment is attributable to agriculture. Following extensive consultation, the total territory of Northern Ireland was established as the area to which an action programme would be applied.

The first nitrates action programme (NAP) to cover the total territory of Northern Ireland was set out in the Nitrates Action Programme Regulations (Northern Ireland) 2006 (the 2006 NAP Regulations) and came into operation in 2007. Under the Directive, action programmes must be reviewed and, if necessary, revised at least every 4 years. Following a scientific review, public consultation and discussion with the European Commission (the Commission), a revised action programme for the period 1 January 2011 to 31 December 2014 came into operation through the Nitrates Action Programme Regulations (Northern Ireland) 2010 (the 2010 NAP Regulations).

The action programme established closed periods for the application of organic and inorganic fertilisers, a livestock manure application limit of 170kg nitrogen/ha/year and the requirement for sufficient slurry storage capacity on farms with the aim of providing greater protection for surface waters and groundwaters in Northern Ireland. In addition, following further discussion with the Commission, and based on the results of scientific research, some further amending regulations relating to the measures permitting the storage of poultry litter in field heaps and the nitrogen and phosphorus content of broiler litter were made in 2012 (superseding amending regulations of 2011).

Furthermore, in 2007, the United Kingdom (UK), with regard to Northern Ireland, was granted derogation (until 31 December 2010) by the Commission to permit an increase in

the amount of grazing livestock manure that may be applied to land from 170kg nitrogen/ha/year up to a limit of 250kg nitrogen/ha/year, for intensive grassland farms which meet certain criteria. The derogation is an important measure to facilitate more efficient use of manure in intensive grassland agriculture in Northern Ireland. A renewal of the derogation was granted in 2011 and expires on 31 December 2014.

In accordance with the requirements of the Directive, the review process for the current NAP Regulations was initiated in summer 2013, so that a new action programme can be in place by January 2015. The Departments have also initiated the application process to renew Northern Ireland's Derogation Decision, to be effective from the same date.

The Departments propose to revise the current action programme (2011-2014) by revoking the 2010 NAP Regulations and making the Nitrates Action Programme Regulations (Northern Ireland) 2014 (2014 NAP Regulations). Revisions are also proposed to the Control of Pollution (Silage, Slurry and Agricultural Fuel Oil) Regulations (Northern Ireland) 2003 (DOE, 2003) (SSAFO Regulations) and the Phosphorus (Use in Agriculture) Regulations (Northern Ireland) 2006 (DOE, 2006) (Phosphorus Regulations). The issues addressed by these Regulations (storage of manures, silage and silage effluent and control of phosphorus fertiliser application respectively) are heavily inter-related with the NAP.

With the exception of the revised measures described in detail in Section 5 (Costs), the measures contained in the 2010 NAP Regulations will be carried forward into the action programme for the period 2015 to 2018 (in the 2014 NAP Regulations).

(iii) Risk Assessment

The Directive requires Member States to monitor surface freshwaters and groundwaters for nitrate pollution against a maximum limit of 50mg of nitrate per litre (NO_3/l). Secondly, the Member State must assess the trophic status of surface waters. Where the 50mg NO_3/l limit is exceeded, or where surface waters are found to be eutrophic, or where trends indicate that either criterion could be reached if action programmes under the Directive are not established, Member States must determine the agricultural nitrate contribution to these. If a significant amount of the nitrate present in these waters comes from agricultural sources, then the Member State is required to designate their catchments as NVZs and to apply action programmes to control agricultural pollution to those zones. Alternatively, Member States may apply action programme(s) across their whole territory, in which case there is no requirement to designate specific NVZs.

With respect to the 50mg NO_3/l limit, nitrate concentrations in both surface waters and groundwaters in Northern Ireland are generally low and only limited areas are impacted by high concentrations.

Eutrophication, however, is considered to be the most widespread threat to good water quality in Northern Ireland with a large proportion of surface waters, both fresh water and marine, impacted. Eutrophication is the enrichment of waters by nutrients causing an accelerated growth of algae and other forms of plant life to produce an undesirable disturbance to the balance of organisms present in the water and to the quality of the water concerned.

For surface freshwaters, phosphorus is the main nutrient of concern. Normally, it is in short supply, therefore limiting the growth of plants (sometimes referred to as the 'limiting nutrient'). In coastal and marine waters, nitrogen is generally the limiting nutrient. However, scientific studies show that in freshwaters and marine waters, nitrogen and phosphorus can each be limiting factors, either together or in turn, depending on a range of factors such as the plant species present and the time of year. There is a requirement to minimise losses to waters of both nutrients.

Evidence suggests that about 75% of diffuse nitrate loadings into water in Northern Ireland are caused by agriculture. This is perhaps unsurprising, given that agriculture covers just under 80% of the land area and that substances that give rise to the nitrate inputs (i.e. chemical nitrogen fertilisers and manures including slurry) are essential, integral elements of agricultural production systems.

In August 2002 DOE and DARD published a scientific report, entitled "*Report on the Environmental Aspects of the Nitrates Directive*", which focused essentially on analysing the agricultural contribution to nutrients in eutrophic waters. The findings of this and subsequent analyses concluded that:

- agriculture is the most significant source of nitrate in both Lough Neagh and Lough Erne contributing 75% and 92% of the total nitrate loading respectively;
- nitrate from agriculture formed the dominant proportion of the annual nitrate loading in the remaining eutrophic areas: Tidal River Lagan (78%), Inner Belfast Lough (73%) and Quoile Pondage (94%); and
- there are also significant nitrate loadings in the other larger catchments in Northern Ireland as follows: River Foyle (92%), Lough Foyle (90%), Lower Bann (92%), Strangford Lough (90%), and Tidal Newry River (96%).

The NAP Review Report 2014 confirmed that nitrate levels in surface freshwaters and groundwater are generally low and stable or decreasing and that long-term trend analysis shows that the monthly trends in average nitrate and phosphorus concentrations in rivers in Northern Ireland are predominantly decreasing or stable. However, there is still evidence of eutrophication in a significant proportion of rivers, lakes and transitional and coastal marine waters. The report concluded that it will take time for a response to reductions in nutrient inputs to be detected in biological indicators of trophic status, particularly in lakes and marine waters.

The report also highlighted that trends in fertiliser use and improved use of manures are very encouraging and that compliance with existing measures is generally very good. However, further work could be done to maintain and build on progress made to date and there are still some key areas which require further awareness and training to improve compliance. Key areas of non-compliance are record keeping and management and maintenance of farmyards and manure storage facilities. DARD and DOE are continuing to raise awareness of these issues through the media and training.

(iv) Consultation

Having considered the outcomes of the NAP review, the recommendations of the review groups, and discussions with stakeholders and the Commission, the Departments issued a consultation seeking views on proposals to:-

- revise the action programme, revoke the 2010 NAP Regulations and make the Nitrates Action Programme Regulations (Northern Ireland) 2014 (2014 NAP Regulations);
- revoke the Phosphorus (Use in Agriculture) Regulations (Northern Ireland) 2006 and make the Phosphorus (Use in Agriculture) Regulations (Northern Ireland) 2014; and
- consolidate relevant parts of the Control of Pollution (Silage, Slurry and Agricultural Fuel Oil) Regulations (Northern Ireland) 2003 into the 2014 NAP Regulations.

A partial Regulatory Impact Assessment (pRIA) was included as part of the consultation which ran from 16 June 2014 to 29 August 2014. Late responses were accepted up to 02 September 2014. The full text of the consultation paper is available on the Departments' websites at: http://www.doeni.gov.uk/index/protect_the_environment/water/nitrates_.htm and www.dardni.gov.uk/NAP2014_Consultation_Page.

3. Options

Two options were identified in the pRIA to further improve protection of water resources from the impact of agricultural nutrients and are compared to the 'business as usual' or 'do nothing' option, as follows:

Option 1: Do nothing, or 'business as usual' scenario; i.e. do not amend the 2010 NAP Regulations;

Option 2: Make all proposed revisions to the 2010 NAP Regulations operational from 1 January 2015; or,

Option 3: Allow a phase-in period for covering of outdoor slurry storage and make all other proposed revisions to the 2010 NAP Regulations operational from 1 January 2015.

Following consideration of the consultation responses, an additional option of adjusting the proposed revisions for the 2014 NAP Regulations was identified as **Option 4**.

4. Explanation of Options

Option 1: *Do nothing or business as usual scenario*

The Directive requires Member States to review and, where necessary, revise their action programmes, including additional measures, at least every four years. The 2010 NAP Regulations are due to be reviewed by 31 December 2014. A scientific and policy review has been completed and discussions have taken place with the Commission on proposed revisions to the action programme.

The Commission Decision granting the Derogation is due to expire on 31 December 2014 and an application is being made to renew it. An action programme acceptable to the Commission is a pre-requisite for renewal of the Derogation. The Derogation is particularly important for intensive grassland farms, with approximately 170 farms currently operating under derogation in Northern Ireland. If the Derogation is not renewed, this would have a serious impact on farms currently operating under it, and other farm businesses which might have considered applying for a derogation in the future.

Furthermore, if the Commission is not satisfied with implementation of the Directive in Northern Ireland, it may use its Treaty powers to seek judgement at the European Court of Justice to secure compliance by the UK Government with the Directive. This could result in significant fines to the Northern Ireland Executive which would ultimately be paid from the public purse.

It is, therefore, not feasible for the Departments to do nothing and Option 1 is ruled out.

Option 2: Make all proposed revisions to the 2010 NAP Regulations operational from 1 January 2015

In the pRIA this option was considered likely to satisfy the requirements of the Commission. However, during discussions, the need to phase-in some measures over the next period of the action programme was recognised. Making all revised measures operational from 1 January 2015 could present practical difficulties for farm businesses which may need time to consider the impact of measures, seek advice and guidance and take appropriate steps to alter their farming practices in line with new requirements. This is particularly the case for covering of new or substantially modified outdoor slurry storage where construction may already be underway and covering has not been included in the initial design or costing.

Option 3: Allow a phase-in period for covering of new outdoor slurry storage (to be operational from 1 January 2017) and make all other proposed revisions to the 2010 NAP Regulations operational from 1 January 2015

This option reflects discussion with the Commission and was also considered likely to satisfy the requirements to proceed with the Derogation application. This option would give farm businesses time to examine whether any proposed new storage is in line with the new requirements, consider options and make any necessary adjustments in a timely and proportionate manner. For this reason, this was the recommended option in the pRIA.

Option 4: Post-consultation adjustment of the proposed revisions for the 2014 NAP Regulations

Respondents to the consultation broadly welcomed the proposal to carry forward existing measures into the new regulations. A number of the proposed revisions, including those proposed for the Phosphorus Regulations, were also welcomed. There were, however, some proposed revisions and issues which drew objections or conflicting opinions from respondents. Having considered the responses to the consultation and discussions with

stakeholders and the European Commission, the Departments have adjusted the proposed revisions to address some of the concerns raised. Further detail on the reasoning for the revised proposals can be found in the Synopsis of Responses to the Consultation Paper which is published on the Departmental websites (http://www.doeni.gov.uk/index/protect_the_environment/water/nitrates_.htm and www.dardni.gov.uk/NAP2014_Consultation_Page).

Key adjustments are summarised below:

- The Departments will not proceed with the requirement to cover new outdoor slurry storage. However, scientific and policy developments on the issue of mitigation of ammonia emissions from storage will be reviewed again for the development of the 2019-2023 action programme.
- The Departments will not proceed with the requirement to cover poultry litter stored in middens with an impermeable cover. However, the disease control and environmental benefits of using covers will be highlighted in guidance.
- No closed period will be introduced for potassium fertiliser (as there is no known water quality impact and in some circumstances there is a crop need during the winter).
- The measure restricting application of organic manures containing a high proportion of phosphorus to nitrogen will not be implemented until 2017 (to allow for adjustment of business practices) and will include a “de-minimis” exemption for hobby enterprises.
- The submission deadline (to NIEA) for annual records of manure exports will be revised to 31 January and late/non submission during the first year of operation will not be considered an offence (to allow farm businesses to become accustomed to the new procedures).

The Departments agree that the adjusted proposals for the next NAP should still satisfy the requirements to proceed with the Derogation application, strengthen improvements seen in water quality over the last two action programmes and help streamline regulation of agricultural nutrient management, without significantly increasing the financial or administrative burden to the agricultural industry. Many of the finalised recommendations are cost neutral and some are likely to have a positive impact on nutrient management and farm efficiency. However, a small number of the proposals in the consultation are still estimated to give rise to some costs for the agricultural industry.

5. Costs to business

Option 1: *Do nothing or business as usual scenario*

Under this option there would be no additional cost to most of the agricultural industry, however, as already described, the option could result in significant fines being imposed by the Commission on the Northern Ireland Executive which would ultimately be paid from the public purse.

In addition, as discussed in Section 4, it is likely that the Commission would not proceed

with the application to renew the Derogation Decision for Northern Ireland. Loss of the Derogation would impact on intensive grassland farms in particular. There are currently 171 farms with an approved derogation in Northern Ireland and if it were not renewed they would have to take alternative action such as destocking or renting additional land to comply with the 170 kg N/ha/year limit. To analyse the cost impact of this outcome, three scenarios are considered below.

a. *Destocking*

An analysis of farms currently operating under derogation indicates that, on average, if they had to comply with the 170 kg N/ha/year limit, each farm would have to de-stock by 32 dairy cows. At a gross margin of £745 per dairy cow this equates to a loss of £23,840 gross margin per farm. The gross margin of £745 per dairy cow is the average from 2012/13 and is expected to improve for 2013/14. Therefore, based on these gross margins, the total cost to these farms of destocking to meet the 170 kg N/ha limit is over £4.08m in 2014.

b. *Renting additional land*

If farms opted to rent additional land, they would need on average 17.3 ha and the total additional cost would be approximately £0.74 m based on conacre rent of £250/ha. This assumes that the additional land required could be sourced.

c. *Exporting Manure*

Farms theoretically could also comply with the 170 kg N/ha/year limit by exporting manure to other farms. This is also a high cost option given the fertiliser value of the nutrients contained. If the average derogated farm is 84 ha and has a nitrogen loading of 205 kgN ha⁻¹ then they would be 2940 kg N over the 170 kg N ha⁻¹ limit, for the whole farm. Exporting this amount of N means exporting 980 m³ of cattle slurry. At a value of £4.11/m³ (based on up to date values of chemical fertiliser) this is a total loss in value of fertiliser nutrients of £4,028 per farm and £0.69m for all derogated farms. This does not include the cost of manure transport and also assumes that there would be farms willing to take the excess manure.

It should be noted that these costs are based on the 171 farms currently operating under derogation and do not allow for potential costs to other farms which may avail of derogation in the future. Derogation enables dairy farms to maximise grass-based production and substantially more farms could potentially avail of it. For example, in Ireland a much higher proportion of farms operate under derogation, with some 5400 farms in total. The approximate total number of farm businesses in Northern Ireland which it was originally estimated could benefit from derogation (i.e. intensive grassland dairy and beef farms) was 730. These farms are unlikely to have as high an N loading, otherwise they would have already applied for the derogation so it would be fairer to assume that they are at an average of 187.5 kgN/ha i.e. half way between 170 and 205. Many of these farms are exporting slurry to comply with the Regulations so, using half of the manure export cost calculated at 5c, gives a total of £2,014 per farm. Therefore the estimated

potential loss of income to the agricultural industry if the Derogation Decision is not renewed is 730 x £2,014, i.e. £1.47m per year.

If the Derogation Decision is not renewed, costs to Government associated with its implementation would be reduced. NIEA would no longer have to process applications and assess compliance with derogation conditions and costs to DARD for training and production of guidance would be negated. The cost of the research, monitoring and reporting specifically required for the Derogation would also be saved.

Option 2: *Make all proposed revisions to the 2010 NAP Regulations operational from 1 January 2015*

and

Option 3: *Allow a phase-in period for covering of new outdoor slurry storage (to be operational from 1 January 2017) and make all other proposed revisions to the 2010 NAP Regulations operational from 1 January 2015*

The costs for Options 2 and 3 are similar and will be considered together.

Some additional costs to farm businesses in Northern Ireland are likely to arise from the proposed revisions to measures in the 2010 NAP Regulations. The proposed revisions and any associated estimated costs are discussed below. Further detail on the reasoning for the proposed revisions can be found in the Consultation Paper which is published on the Departmental websites (doeni.gov.uk and dardni.gov.uk). References below refer to the draft 2014 NAP Regulations and draft 2014 Phosphorus Regulations.

Regulation 2: <i>Purpose of Regulations</i>
Revision: Explanation that these Regulations give effect to a Nitrates Action Programme for Northern Ireland and inclusion of a reference to the fact that the measures provide protection against possible impact to water quality arising from any proposed agricultural expansion under the “Going for Growth” plan.
Costs: None.

Regulation 5: <i>Duty of the controller to prevent water pollution</i>
Revision: Expansion of regulation to cover all types of fertiliser and specification that a controller must not permit entry or risk of entry of fertiliser into groundwater.
Costs: Expansion of the regulation is a transfer of the measures applying to phosphorus fertiliser from the Phosphorus Regulations and extension to cover other fertiliser types such as potassium. It is assumed that farm businesses already complying with the requirements of the 2010 NAP Regulations and the Phosphorus Regulations are unlikely to be spreading other fertiliser types in a manner that poses a risk of water pollution. Therefore, no costs to farm businesses are anticipated.

Regulation 7: Exemptions granted by the Department

Revision: Specification of limited, authorised exemptions to facilitate the activities of government and institutes/agencies authorised by government for research and emergency situations.

Costs: No costs to farm businesses are anticipated.

Regulation 8: Periods when the land application of fertiliser is prohibited

Revision: Expansion of regulation to cover all types of fertiliser

Costs: The Departments recognise that a number of arable and horticultural crops may require chemical fertiliser application during the proposed closed period, for example phosphorus and/or potassium at sowing for cereal crops on soils at Index 0 and 1 and nitrogen application for winter cabbages. As in the 2010 NAP Regulations, the chemical fertiliser closed period for crops other than grass will, therefore, make an allowance for demonstrable crop requirements. Therefore, no costs to farm businesses are anticipated.

Regulation 9: Requirements as to the manner of land application of fertiliser to any agricultural land

Revision: Expansion of regulation to cover all types of fertiliser; simplification of wording relating to frozen land; clarification that land application of fertiliser should not take place when heavy rain is either falling or forecast; and specification that fertiliser application to grassland with an average incline of greater than 15% and other land with an average incline of greater than 12% is not permitted within 30m of lakes and 15m of other surface waters for organic manures and 10m of lakes and 5m of other surface waters for chemical fertilisers.

Costs: Expansion of the regulation is a transfer of the measures applying to phosphorus fertiliser from the Phosphorus Regulations and extension to cover other fertiliser types such as potassium. It is assumed that farm businesses already complying with the requirements of the 2010 NAP Regulations and the Phosphorus Regulations are unlikely to be spreading other fertiliser types in a manner that poses a risk of water pollution. Frozen land is a relatively infrequent occurrence in Northern Ireland and most likely to happen over the months of December and January when spreading is, in any case, prohibited. The change regarding heavy rain clarifies rather than alters the provision. Therefore, no costs to farm businesses are anticipated from these three proposals.

In response to consultees' comments on the pRIA, further analysis of the area of 'intermediately' sloping land close to water bodies and at appropriate altitudes for crop

and grass growth within Northern Ireland estimates that approximately 0.01 % of the total area of crop and grassland would be impacted by this additional measure¹. Given the area involved and that spreading activities on sloping land are already limited by health and safety and practicality issues, the Departments would consider this revision to have a low regulatory impact.

Regulation 12: *Measures governing the limits on land application of nitrogen fertiliser to land other than grassland*

Revision: Specification that, for cereal crops (except maize), the nitrogen applications shall take account of the recommendations contained within the DEFRA Fertiliser Manual 8th Edition and shall in no case exceed the limits set out in Table 5 Schedule 1, adjusted in accordance with the notes to the table.

Costs: For most cereals, the recommendations for maximum permitted nitrogen application align with recommendations already in place for the most common soil types and Soil Nitrogen Supply Index in Northern Ireland. Therefore, no costs to farm businesses are anticipated.

Regulation 14: *Measures governing the limits on land application of organic manures with a high proportion of phosphorus to nitrogen*

Revision: Specification that organic manures containing more than 0.25 kg total P per kg of total N will not be applied to land unless crop P requirement is demonstrated.

Costs: This change will affect farm businesses which apply livestock manures with a known high P to N value to land, such as turkey litter, layer, duck and horse manures and solid pig manures. For these farms, soil analysis would be necessary to check if, taking the soil P index into consideration, there is a crop P requirement. However, routine soil analysis may already be carried out by the farm business. If this is not the case, a 'worst case scenario' of obtaining soil analysis for all of the fields on a farm every four years (as recommended by soil analysis protocols) will cost approximately £11 per field per 4 years or £77 per year per farm business².

The number of farm businesses involved is estimated to be up to approximately 1800³,

¹ Based on (using 100 m slope grid square and the most up to date DARD GIS fields layer and a dataset extracted from OSNI large scale vector maps) calculation of, for slopes between 12 and 20 %: (the total area between 10 and 15 m from waterways other than lakes over 50 ha) plus (the total area between 20 and 30 m from lakes greater than 50 ha). Due to limitations of the digital mapping data, waterways included are those wider than 1 m (including lakes and ponds under 50 ha).

² Using an average value for number of farm fields derived from DARD 2013 farm census figures for approximately 680,000 fields in Northern Ireland and 24500 farm businesses to give approximately 28 fields per farm.

³ Value derived from DARD figures for: (20 farms producing solid pig manures) + (280 layer farms) + (155 turkey farms) + (10 duck farms) = 465, plus an estimated maximum 1335 farms receiving imports of these poultry manures (based on DARD estimated average number (3) of other farms that turkey duck and layer farms export to). This gives an approximate total of 1800.

giving an estimated maximum total cost of £139 k. However, as many poultry farms export the manure produced, and the number of farms receiving imports is an approximation, it is difficult to validate this estimate. If soil analysis shows that P fertiliser is not required on certain fields, the farm business would not be permitted to spread the manure and would have to source alternative, lower P manures for application to those fields. Hence, there may be additional costs incurred in redistribution of higher P manures to land where P is required. But, due to the number of assumptions that would be required, it is not possible to make an accurate estimate of this.

NB It is notable that the introduction of phytases in poultry feed since the last NAP has improved efficiency of phosphorus use by the sector. As with the broiler sector, the consequent reductions in di-calcium phosphate in feed formulation are expected to have caused phosphorus concentration in turkey litter, layer manure and duck manure to have decreased. To date, scientific data to support these trends has not been gathered. If manure P in turkey litter, layer manure or duck manure is proven to be below the 0.25 level, the requirement to comply with this measure would be removed.

Farm businesses applying other organic manures (apart from livestock manure) not controlled under The Waste Management Licensing Regulations (Northern Ireland) 2003 would also be affected by this change. Currently, the only organic manures identified as falling into this category are some forms of anaerobic digestate. Farms applying anaerobic digestate of a type which is not regulated by waste licensing⁴, for use as a fertiliser, would be obliged to obtain nutrient analyses of the digestate at a frequency determined by the regulator (NIEA). Frequency of analysis required will depend on the consistency of the feedstock for the anaerobic digestion process. It is likely that analysis will be provided by the digestate producer. If this is not the case, a 'worst case scenario' of obtaining an analysis before each application of digestate, with a maximum of five applications (e.g. for a high intensity cut grassland system) is estimated to cost £225 per year for a farm business. If analysis shows that the digestate contains more than 0.25 kg P per kg N, soil analysis would be necessary to check if, taking the soil P index into consideration, there is a crop P requirement. As before, routine soil analysis may already be carried out by the farm business. If this is not the case, a 'worst case scenario' would again be £77 per year per farm business and if soil analysis shows that P fertiliser is not required on certain fields, the farm business would not be permitted to spread the manure and would have to source alternative, lower P manures for application to those fields. The number of farms involved is estimated to be 11⁵ giving an estimated maximum total cost of approximately £3 k (for digestate and soil analysis).

Maximum total costs are therefore estimated to be £0.14 m per year. Costs associated with re-distribution of manures cannot be estimated at this stage.

(The average number of horses on farms, if present, is estimated to be 2, and therefore the impact is assumed to be negligible).

⁴ i.e. anaerobic digestate complying with a Quality Protocol, or derived from feedstock of livestock manure and/or forage crops only.

Regulation 17 and Schedule 2: Manner of storage of slurry

Revision: Transfer of details of storage requirements for slurry from the SSAFO Regulations to the 2014 NAP Regulations and specification that outdoor slurry storage, constructed or substantially modified after 31st December 2016, must be covered.

Costs: No costs to farm businesses are anticipated from the transfer of existing provisions. With regard to the requirement for new or substantially modified storage to be covered; NIEA receives an average of 30 notifications of new outdoor storage per year. The Environment Agency (in England) estimates costs of fitting covers ranges from £25/m² to £60/m², depending on type of store and cover⁶. With the average area of an earth banked lagoon and an above ground circular store estimated at 2000 m² and 314 m², respectively, this would give a one-off capital cost per farm ranging from approximately £8000 to £66,000. However, depending on the type of cover installed, some of these costs would be offset by reduced spreading costs as rainwater would be excluded from the stores.

Regulation 19: Manner of storage of poultry litter and location of storage facilities

Revision: Specification that poultry litter stored in a midden must be covered with an impermeable membrane or other impermeable cover and reduction in the length of time poultry litter can be stored in field heap from 180 to 120 days.

Costs: It is estimated that the requirement to cover middens used to store poultry litter would affect up to approximately 3900 farms⁷. However, many poultry farms export manure produced, and an accurate figure for numbers of importing farms and the type of storage facilities used on them are unknown; hence, it is difficult to validate this estimate. The likely size of a midden would be one sufficient to hold up to 25 - 30 tonnes of poultry (the quantity from one house at any one time). This quantity would be adequately covered by a medium sized 500g plastic silo cover of 14m x 30m (at a current cost of £59) which would probably be replaced twice per year. This would give an annual cost per farm of approximately £120 and a maximum estimated total cost to the industry of £468k per annum. No costs to farm businesses are anticipated from the proposed reduction in the permitted length of field storage.

⁵ Current number of on-farm operational anaerobic digestate plants (no off farm facilities currently operational)

⁶“Producing a proposal for covering slurry stores”, Environment Agency 2012, <http://a0768b4a8a31e106d8b0-50dc802554eb38a24458b98ff72d550b.r19.cf3.rackcdn.com/geho0110brsf-e-e.pdf>

⁷ Value derived from DARD estimates for 150 turkey and broiler farms currently outside of the PPC regime and storing litter in uncovered middens, plus an estimated maximum of 3715 farms receiving imports of these poultry manures (based on total number of turkey and broiler farms of 805 and DARD and NIEA estimated average number of other farms that turkey and broiler farms exports to (3 and 5 respectively)). Giving an approximate total of 3900.

Regulation 22 and Schedule 3: *Making and storage of silage*

Revision: Transfer of details of requirements for making and storing of silage from the SSAFO Regulations to the 2014 NAP.

Costs: As this is a transfer of existing provisions, no costs to farm businesses are anticipated.

Regulation 23: *Cover in winter*

Revision: Amendment of the date for complying with the stipulated conditions from harvest until “1 March” to harvest until “15 January” and to remove the option of after harvest of certain crops of leaving the land “with a rough surface, ploughed or disced, to encourage the infiltration of rain”.

Costs: It is estimated that this proposed revision will affect very few farm businesses and will not add significantly to costs.

Regulation 26: *Types of records required*

Revision: Specification that records of exports and imports of organic manures should be submitted annually to NIEA.

Reason: Records of imports and exports of manures are already required to be kept on farms. Submission of records to NIEA will allow increased traceability of manure movements and help verify that farm businesses are maintaining their livestock manure loadings at below 170 kg N/ ha (or 250 kg N/ha for derogated farms).

Likely regulatory impact: Records of imports and exports of manures are already required to be kept on farms. There may be some small administrative costs associated with submitting records to NIEA at end of each year; however, as the number of farms importing or exporting manure is currently not recorded, it is not possible to estimate this cost. Furthermore, provision by the Departments of a form to standardise recordings and an on-line submission process should lessen the regulatory burden.

Schedule 1: *Criteria as to nutrient management*

Revision: Updates to a number of values in different tables, including nitrogen excretion rates for goats, changes in livestock categories and nitrogen and phosphorus contents of pig (and possibly poultry) manures.

Costs: No additional costs are anticipated from these updates. The new values will allow for a more accurate calculation of nutrient loadings from different manure types, thus resulting in more efficient use when land spread. This should also result in reduced usage of chemical fertiliser as farmers will be able to match manure and chemical fertiliser applications to crop requirements more accurately.

The SSAFO Regulations
Revision: Deletion of the silage and slurry aspects of the SSAFO Regulations (as the provisions will now be included within the 2014 NAP Regulations), transfer of the agricultural fuel oil storage aspects to the Control of Pollution (Oil Storage) (Northern Ireland) Regulations 2010 and revocation of the SSAFO Regulations.
Costs: No costs to farm businesses are anticipated from these amendments

The Phosphorus Regulations
Revision: Deletion of Regulations 3 and 4 (as the provisions will now be included within the 2014 NAP Regulations), inclusion of an exemption provision, revision of record keeping provisions, inclusion of notice and appeal against notice provisions, revision of P availability values for organic manures and inclusion of new P fertiliser recommendations for grassland.
Costs: No costs to farm businesses are anticipated from the first two proposed changes. Revision of record keeping provisions does not alter the types of records required to be kept and, therefore, is also anticipated to have no regulatory impact. The inclusion of a notice provision and right of appeal against notices will have no regulatory impact for farm businesses complying with the Regulations. For businesses in breach of the Regulations the regulatory impact is likely to be positive as the measures provide an intermediate enforcement step to allow breaches to be addressed without court proceedings being initiated. The regulatory impact of the proposed revisions to P availability values and P recommendations are likely to be positive in terms of increased agricultural productivity as the changes will address under-application of available P from organic manures on low P index soils and tailor P recommendations for grassland more specifically to agronomic conditions in Northern Ireland.

Option 4: *Post-consultation adjustment of the proposed revisions for the 2014 NAP Regulations*

The Departments' adjusted recommendations will have less financial implications for farmers than those outlined in Options 2 and 3 but are still expected to meet the required environmental obligations. However, some additional costs to farm businesses in Northern Ireland are still likely to arise from the revised proposals for the 2010 NAP Regulations. Recommendations which have been adjusted and any associated revised estimated costs are discussed below. Other recommendations and costs remain the same as Option 3. References to regulations below refer to the draft 2014 NAP Regulations.

Regulation 8: <i>Periods when the land application of fertiliser is prohibited</i>
Revision: Expansion of regulation to cover all types of fertiliser.

Adjustment: A caveat will be included in the regulations to allow for potassium application on grassland during the closed period if there is a demonstrable crop need.

Costs: The Departments recognise that a number of arable and horticultural crops may require chemical fertiliser application during the proposed closed period, for example phosphorus and/or potassium at sowing for cereal crops on soils at Index 0 and 1 and nitrogen application for winter cabbages. Following consultation it is apparent that there is also occasionally a requirement for chemical potassium application to grassland during the proposed closed period. The chemical fertiliser closed period in the new regulations will, therefore, make an allowance for these demonstrable crop requirements. Therefore, no costs to farm businesses are anticipated.

Regulation 14: *Measures governing the limits on land application of organic manures with a high proportion of phosphorus to nitrogen*

Revision: Specification that organic manures containing more than 0.25 kg total P per kg of total N will not be applied to land unless crop P requirement is demonstrated.

Adjustment: In order to allow time for adjustment of practices and to provide consistency in which manures the measure would apply to, the Departments are content to delay implementation of this measure until 1 January 2017. There will also be an exemption for enterprises producing a high P:N manure where total nitrogen loading from the manure is less or equal to a de-minimis value of 7kg N/ha.

Costs: Maximum total costs are estimated to be the same as the unadjusted proposal, i.e. £0.14 m per year (see Option 3 for details).

Regulation 17 and Schedule 2: *Manner of storage of slurry*

Revision: Transfer of details of storage requirements for slurry from the SSAFO Regulations to the 2014 NAP Regulations and specification that outdoor slurry storage, constructed or substantially modified after 31st December 2016, must be covered.

Adjustment: The Departments have decided not to proceed with the proposal for covering of new slurry storage for the 2015-2018 action programme. Rather, a further review of options for the most effective methods for reducing ammonia emissions from storage will be carried out. Nonetheless, given the potential impact of nitrogen deposition on sensitive sites, and the increased focus of the European Commission on ammonia emissions, the Departments would like to highlight that it is very likely that ammonia mitigation measures will be considered for the 2019-2023 action programme. The Departments intend to proceed with the transfer of the measures regarding slurry storage from the SSAFO Regulations.

Costs: No costs to farm businesses are now anticipated from the adjusted revision.

Regulation 19: <i>Manner of storage of poultry litter and location of storage facilities</i>
Revision: Specification that poultry litter stored in a midden must be covered with an impermeable membrane or other impermeable cover and reduction in the length of time poultry litter can be stored in field heap from 180 to 120 days.
Adjustment: The Departments have decided not to proceed with the revision regarding covering of poultry litter in middens at this time. Instead, they will highlight the disease control and environmental benefits of the practice in guidance. The Departments intend to proceed with the reduction in the length of time permitted for storage of poultry litter in field heaps.
Costs: No costs to farm businesses are now anticipated from the adjusted revision.

Regulation 26: <i>Types of records required</i>
Revision: Specification that records of exports and imports of organic manures should be submitted annually to NIEA.
Reason: Records of imports and exports of manures are already required to be kept on farms. Submission of records to NIEA will allow increased traceability of manure movements and help verify that farm businesses are maintaining their livestock manure loadings at below 170 kg N/ ha (or 250 kg N/ha for derogated farms).
Adjustment: The Departments intend to proceed with this change but to revise the submission deadline to 31 st January (instead of 31 st July) and allow for late/non submission during the first year of operation not to be considered an offence. The Departments would also like to clarify that only exporting farms will be required to submit a record, which will include details of the importing farm.
Likely regulatory impact: Records of imports and exports of manures are already required to be kept on farms. There may be some small administrative costs associated with submitting records to NIEA at end of each year; however, as the number of farms exporting manure is currently not recorded, it is not possible to estimate this cost. The Departments have undertaken to provide a standard form for keeping of these records which will be available to print off from the NIEA website. Subject to resource availability, consideration will also be given to the development of an on-line submission system.

The SSAFO Regulations
Revision: Deletion of the silage and slurry aspects of the SSAFO Regulations (as the provisions will now be included within the 2014 NAP Regulations), transfer of the agricultural fuel oil storage aspects to the Control of Pollution (Oil Storage) (Northern Ireland) Regulations 2010 and revocation of the SSAFO Regulations.
Adjustment: DOE intends to proceed with the deletion of the silage and slurry aspects of the SSAFO Regulations. However, as DOE has already committed to reviewing the OSRs in 2016, the Department has concluded that it would be more resource efficient,

and more transparent for stakeholders, to delay the proposed transfer of measures until 2016 when it could be done after consultation along with any other required amendments to the OSRs that might be identified during the review.

Costs: No costs to farm businesses are anticipated from these amendments.

6. Other costs

As well as costs to the agricultural industry, Options 2, 3 and 4 will result in costs to Government. The proposed requirement for farm businesses to submit records of exports of organic manures to NIEA has resource implications for the agency for processing the information and identifying and following up on possible issues. Estimated costs of additional resources required range from £9K to £210K, depending on the total number of records submitted and the proportion processed.

Changes to the required measures included in the 2014 NAP Regulations will necessitate the provision of further guidance and training to farm businesses. These could range from £50,000 for re-issue to all active farm businesses in Northern Ireland of a revised and updated Guidance Booklet (first issued for the 2006 NAP Regulations and reissued for the 2010 NAP Regulations) to minimal costs of providing updated guidance on Departmental websites. Training programmes are still ongoing for the 2010 NAP Regulations and the new requirements can be built into these.

Inspection and enforcement costs for NIEA are not likely to be significantly different from those for the current regulations. There may be some initial additional work for NIEA and CAFRE in staff training, raising awareness and responding to enquiries about new requirements.

7. Benefits

Option 1: *Do nothing or business as usual scenario*

No additional benefits were identified.

Option 2: *Make all proposed revisions to the 2010 NAP Regulations operational from 1 January 2015*

and

Option 3: *Allow a phase-in period for covering of new outdoor slurry storage (to be operational from 1 January 2017) and make all other proposed revisions to the 2010 NAP Regulations operational from 1 January 2015*

and

Option 4: *Post-consultation adjustment of the proposed revisions for the 2014 NAP Regulations*

As Options 3 and 4 propose the phasing-in of some measures for the 2014 NAP Regulations, there may be a slight time lag in terms of benefits compared to Option 2.

However, apart from timing, the benefits related to Options 2, 3 and 4 are similar and will be considered together.

The NAP Regulations play a key role in meeting the aims of the Water Framework Directive (2000/60/EC). At the highest level, the benefits to be attained under the 2014 NAP Regulations are those associated with the achievement of good status in water bodies. Whilst the action programme is primarily aimed at reducing levels of nitrates in water, many of the measures will also reduce phosphorus levels.

It is difficult to place an exact monetary value on the benefits associated with improving water quality. However it is clear that taking action to prevent and control eutrophication will generate a wide range of benefits for Northern Ireland's natural environment, its economy and the quality of its environmental amenities.

More specifically, action to tackle eutrophication will enhance biodiversity, restore fish habitats and improve the aesthetic standards of water bodies. Many of the important and characteristic aquatic plant and fish species found in Northern Ireland need low levels of nutrients to flourish. At low and moderate levels of nutrient enrichment, aquatic food webs are complex and diverse. If nutrient levels are too high, this diversity is reduced as the original flora and fauna become displaced by a smaller number of species, both plant and fish that are tolerant of water with a high nutrient content.

Plants and animals also contribute towards clean, healthy and robust aquatic eco-systems which provide many benefits. Good water quality is important because it provides clean drinking water, safe bathing water, healthy fisheries and contributes to an improved living environment. Good water quality is also essential for recreation and for supporting tourism which in turn encourages the use of the countryside and the viability of rural businesses.

As recognised in the NAP Review Report 2014, due to the nature of biological and chemical processes, there may be a delay between the period in which measures are taken and the period in which the benefits are realised. Therefore, although the benefits under Options 3 and 4 may be slightly delayed compared to Option 2, there is likely to be a lag in any event between the timing of measures and the realisation of benefits.

Identified potential qualitative and economic benefits of Options 2, 3 and 4 are summarised in the table below.

Benefit Category	Nature of Benefits
Human health	Reduction in risk of exposure to potentially toxic algae, elevated nitrate concentrations and faecal pathogens
Biodiversity / ecosystem health	Protection and enhancement of freshwater and marine ecosystems (as the impacts of eutrophication are reduced) Maintenance and improvement of biodiversity Reduced impact on sensitive ecosystems

Benefit Category	Nature of Benefits
Agricultural industry	<p>Necessary for revised action programme to be in place to progress application to renew Derogation which is a useful aid for manure management on intensive grassland farms</p> <p>Potential for more farm businesses to avail of renewed Derogation</p> <p>Improved water quality for stock watering and on-farm water use of abstracted water</p> <p>Improved nitrogen efficiency from more effective use of manures</p> <p>Reduction in use of chemical nitrogen fertilisers and associated reduced cost</p> <p>Greater awareness of crop nutrient requirements (through training and guidance) may improve yield, productivity and farm incomes</p> <p>Development of alternative farming practices could provide the potential for new business opportunities (particularly for agricultural consultants, builders and suppliers)</p>
Water abstraction and treatment	<p>Reduced levels of nutrients, algae, faecal pathogens etc within water supplies should provide potential for reduction in treatment costs prior to use for potable supplies or other purposes</p>
Commercial fisheries, shellfisheries and recreational fisheries	<p>Improved productivity and potential for increased stocks and variety</p> <p>Reduced levels of nutrients, algae, faecal pathogens etc within water should decrease treatment costs for harvested shellfish</p> <p>Increased revenues from fisheries</p>
Pollution incidents	<p>Reduced numbers of pollution incidents and fish kills and associated reduced costs for investigations and clean-ups</p>
Recreation and tourism	<p>Improved water quality leading to greater use of recreational and tourist facilities with associated increased revenue in mainly rural areas</p>

8. Business Sectors Affected

The proposed Regulations will have a direct impact on the agricultural industry, but significant additional costs are only likely to be incurred by farm businesses where;

- Farming practices involve land application of organic manures with a high proportion of phosphorus compared to nitrogen;

- The farm business is constructing, or substantially modifying, outdoor slurry storage (Options 2 and 3); or
- Farming practices involve the storage of poultry litter in an uncovered midden (Options 2 and 3).

As discussed in Section 7, there may also be business development opportunities for builders, suppliers and contractors providing storage facilities for slurry and poultry litter and agricultural consultants providing advice and guidance on alteration of farm practices to meet the requirements of the revised Regulations.

9. Small Firms Impact Test

A small business is defined as having fewer than 50 employees, and no more than 25% of the business owned by another enterprise (which is not a small business): and either less than £4.4 million annual turnover; or less than £3.18 million annual balance sheet total. Nearly all active farm businesses in Northern Ireland would be considered as small businesses and may be impacted by additional costs if they are affected by the parameters described in Section 8.

Representatives of the agricultural industry have been involved throughout the review process through engagement with the Nitrates Stakeholder Group. Discussions on the progress of the scientific review took place at a workshop with stakeholders in November 2013 and feedback was included in the final NAP Review Report 2014. A further meeting took place in May 2014 at which stakeholders were briefed on the proposed revisions to the 2010 NAP Regulations for the 2015-2018 action programme.

10. Guidance and Training

It is the Departments' intention to continue to engage with stakeholders and to provide further guidance and training to farm businesses to support the industry in complying with the Regulations. To this end, a Nitrates Guidance Working Group (involving a number of key stakeholders) will be re-established in winter 2014 to develop updated guidance material in support of the 2014 NAP Regulations. This should help farm businesses comply with the measures at the minimum cost possible.

11. Enforcement and Sanctions

NIEA aims to protect the environment by consistent and fair application of the legislation it enforces. It will continue to work co-operatively with those it regulates in order to secure improved performance and will offer advice where appropriate. NIEA will carry on working in partnership with DARD to issue appropriate guidance to farmers. NIEA will also continue to train and update staff to ensure that the proposed Regulations are implemented, monitored and enforced fairly and equitably across Northern Ireland.

In taking enforcement action NIEA will continue to apply the existing published Enforcement and Prosecution Policy for Environmental Protection and any subsequent

amendments. A range of enforcement tools is available, and includes warning letters and notices as well as prosecution. The choice of enforcement action taken will depend on each individual case, but NIEA will continue to be consistent, proportionate and transparent in the action taken.

Compliance with the NAP Regulations is also a statutory management requirement for Cross Compliance under direct aid payment schemes. If a non-compliance issue is identified on a controller’s agricultural holding, the breach will be reported to DARD’s Single Farm Payment Administration branch. This may lead to a reduction being applied to the farm business’s direct aid payments.

12. Monitoring and Review

As described under Section 2(ii) Action Programmes must be reviewed and, if necessary, revised at least every four years. In addition, the Commission Derogation Decision needs to be renewed every four years. The process to complete this work is described under Section 2(ii) and a similar process will be put in place at the end of the next Action Programme (2015-2018).

13. Summary and Recommendation

In order to meet the requirements of the Nitrates Directive this Regulatory Impact Assessment presents four options. The total minimum and maximum estimated costs, for the agricultural industry and government, associated with these options are summarised in the table below. Please note that, for Option 1, the cost to the public purse if infraction proceedings are initiated by the Commission have not been estimated. Some costs to the agricultural industry for Options 2, 3 and 4 (regarding application of high P to N value manures and covering of poultry litter in middens) present difficulties in accurate estimation, due to lack of information on the number and types of farm involved. The maximum estimated costs for these proposed revisions are based on “worst case” scenarios and are likely to be over-estimated.

Description of costs	Minimum estimated cost	Maximum estimated cost
Option 1 - no revision of 2010 NAP Regulations		
Cost to agricultural industry	£0.74m per year	£4.08m per year
Cost to government	Cost of infraction penalties not estimated	Cost of infraction penalties not estimated
Options 2 and 3 – proposed revisions		

Description of costs	Minimum estimated cost	Maximum estimated cost
Costs to agricultural industry:		
<i>Requirement for covering of new and substantially modified outdoor slurry storage</i>	£0.24m one-off capital costs per year	£1.98m one-off capital costs per year
<i>Measures governing the limits on land application of organic manures with a high P to N value</i>	Unable to estimate ⁸	£0.14m ⁹
<i>Requirement for covering of poultry litter stored in middens</i>	Unable to estimate ⁸	£0.47m per year
Total estimated costs to agricultural industry of Options 2 and 3	Unable to estimate	£2.59m per year
Option 4 – adjusted proposed revisions		
<i>Measures governing the limits on land application of organic manures with a high P to N value</i>	Unable to estimate ⁸	£0.14m ⁹ per year
Total estimated costs to agricultural industry of Option 4	Unable to estimate	£0.14m per year
Costs to government		
<i>Provision of additional training and guidance</i>	negligible	£0.05m one-off cost
<i>Processing of records submitted by farm businesses on export and import of organic manures.</i>	£9,000 per year	£0.21m per year
Total estimated costs to government of Options 2 - 4	£0.009m	£0.26m

Calculating Total Net Present Costs (NPCs) over 10 years, using a 3.5% discount rate gives the following results for maximum NPCs. Minimum NPCs cannot be calculated due to lack of information for estimating minimum costs for some measures. Options 2 and 3 have different NPCs due to the delay in introducing the requirement to cover new or

⁸ Due to lack of accurate information on farm numbers involved.

⁹ This cost may be lower if research to re-assess nutrient contents of poultry manures is carried out.

substantially reconstructed outdoor slurry storage. It has been assumed that this expenditure is incurred at the end of the second year. Under Option 4, implementation of the measure limiting the application of manure containing a high proportion of phosphorus would be delayed until Year 3. However, it is assumed costs would be incurred from Year 1 as soil testing would have to be carried out prior to implementation.

Option	Maximum Estimated NPC
1	£38.01m
2	£26.14m
3	£22.24m
4	£3.31m

Option 1: *Do nothing or business as usual scenario*

The Directive requires Member States to review and, where necessary, revise their action programmes, including additional measures, at least every four years. An action programme acceptable to the Commission is also pre-requisite for applying to renew the Derogation (due by 31 December 2014). The review of the 2010 NAP Regulations (also due by 31 December 2014) has been completed and discussions have taken place with the Commission. These processes have identified possible revisions required to the Action Programme. Therefore, if the 2010 NAP Regulations are not revised it could result in significant fines to the Northern Ireland Executive (and, ultimately, the public purse) and also impact farm businesses currently operating under a derogation, with an estimated cost to those businesses ranging from £0.74m to £4.08m per year. The potential maximum cost to the agricultural industry of ‘doing nothing’ is, therefore, substantially greater than the potential estimated maximum costs of implementing revisions. Due to these considerations, Option 1 is not recommended.

Option 2: *Make all proposed revisions to the 2010 NAP Regulations operational from 1 January 2015*

and

Option 3: *Allow a phase-in period for covering of outdoor slurry storage (to be operational from 1 January 2017) and make all other proposed revisions to the 2010 NAP Regulations operational from 1 January 2015*

These options are likely to satisfy the requirements of the Commission and Option 3 was the option recommended by the Departments in the pRIA. There were, however, significant concerns raised by respondents to the consultation regarding the detail and extent of the proposed revisions, in terms of practical and financial difficulties for farm businesses which may need to alter their farming practices in line with new requirements. For these reasons, Options 2 and 3 are no longer recommended.

Option 4: Make the 2010 NAP Regulations implementing the Departments' revised recommendations following consultation

This option reflects consideration of the responses to the consultation. It also reflects further discussion with the Commission, during which particular issues relating to Northern Ireland's circumstances, which had been raised during the consultation process, were recognised. This option would give farm businesses time to examine whether their current farming practices are in line with the new measure limiting the application of manures containing a high proportion of phosphorus, consider options and make any necessary adjustments in a timely and proportionate manner. A phase-in period for compliance with the requirement to submit manure export records to NIEA would also allow time for farm businesses to become accustomed to the new procedures. In summary, whilst the recommendations do not encompass all the revisions originally consulted on, they are expected to still achieve environmental obligations whilst minimising the impact on the agricultural sector.

Option 4 is, therefore, the preferred option.

14. Declarations

I have read the Regulatory Impact Assessment and am satisfied that the benefits justify the costs.

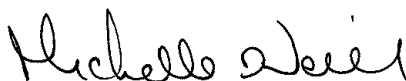


Signed:

MARK H DURKAN

Minister of the Environment

Date: 27 November 2014



Signed:

MICHELLE O'NEILL

Minister of Agriculture and Rural Development

Date: 26 November 2014