

Explanatory Memorandum to The Nitrate Pollution Prevention (Wales) Regulations 2008

This Explanatory Memorandum has been prepared by Department for Environment, Sustainability and Housing and is laid before the National Assembly for Wales in accordance with Standing Order 24.1.

1. Description

The Nitrate Directive requires member states to identify polluted waters and waters which could become polluted if action is not taken pursuant to the Directive, and to designate land which both drains into and contributes to the pollution of such waters as a Nitrate Vulnerable Zone.

The aim of the Regulations is to:-

- Designate certain areas of land in Wales as Nitrate Vulnerable Zones; and
- Reduce the amount of nitrates from agricultural sources entering waters by means of an Action Programme farmers must adhere to within the Nitrate Vulnerable Zones.

2. Matters of special interest to the Subordinate Legislation Committee

None

3. Legislative Background

The Regulations implement European Council Directive 91/676/EEC concerning the protection of waters against pollution caused by nitrates from agricultural sources (OJ No. L375, 31.12.1991,p1).

The Directive came into force in December 1991 and was implemented in domestic legislation in the following Regulations which are revoked and replaced by these Regulations insofar as they apply in Wales:

- The Protection of Water against Agricultural Nitrate Pollution (England and Wales) Regulations 1996
- The Action Programme for Nitrate Vulnerable Zones (England and Wales) Regulations 1998 (as amended by the Action Programme for Nitrate Vulnerable Zones (Amendment) (Wales) Regulations 2003)
- The Protection of Water Against Agricultural Nitrate Pollution (Amendment) (Wales) Regulations 2002
- The Protection of Water Against Agricultural Nitrate Pollution (England and Wales) (Amendment) Regulations 2006

4. Purpose and intended effect of the legislation

To revise NVZ designations and Action Programme measures, to secure greater protection of the water environment against nitrogen pollution from agricultural activities in Wales, in order to meet specific objectives of the

Nitrates Directive. They will also assist in meeting the wider, long term environmental objectives of the Water Framework Directive. These Regulations both extend the coverage of Nitrate Vulnerable Zones from around 3% in Wales to around 4%, and alters the Action Programme that is applied within all these zones.

5. Implementation

This instrument follows the negative resolution procedure, and will come into force on 1 January 2009.

6. Consultation

Following the review, an extensive consultation exercise was undertaken in the second half of 2007, followed by a supplementary consultation in 2008, to seek stakeholders' views on a number of proposals. This resulted in 69 responses from stakeholders and the Assembly Government response will be published during the week commencing 8 December and outlines how the Assembly Government intends implementing the Nitrates Directive. The Regulations reflect the approach set down in the Assembly Government response.

7. Regulatory Impact Assessment

Wales currently has some 3% of its agricultural area designated as NVZ and the Action Programme that applies in these areas has, in most cases, a minimal effect on practical farming activities. The main elements of the current Action Programme are:

- Closed periods for:
 - (i) manufactured Nitrogen fertiliser on all soils
 - (ii) slurries and poultry manure on (the small proportion of) "sandy and shallow" soils
- Limits on the amount of fertiliser:
 - (i) all Nitrogen fertilisers (organic and inorganic) – (crop requirement should not be exceeded)
 - (ii) whole farm limit for livestock derived organic material (including grazing deposition)
(Arable: 170 kg/ha total N; Grassland: 250 kg/ha total N)
 - (iii) field limit for all organic material
(Arable: 250 kg/ha total N; Grassland: 250 kg/ha total N)
- Slurry Storage

There must be sufficient storage to meet the autumn closed period for spreading slurry (which only applies to "sandy and shallow" soils – these constitute only some 4% of the designated areas).

- Controls on spreading

Covers application methods, avoidance of high risk areas, and avoidance in high risk circumstances (e.g. when land is waterlogged).

- Record Keeping

Adequate farm records must be kept for at least five years covering cropping, livestock numbers, and the use of nitrogen fertilisers and organic manures.

Proposals to revise the NVZ Action Programme

A review of the current Action Programme found that existing measures are not achieving an overall consistent downward trend in nitrate losses and therefore further action is required.

Established scientific methodologies have been used to identify water bodies that meet NVZ designation criteria. This has resulted in additional areas being designated – taking the overall NVZ area from 3% to about 4%.

In addition, revised Action Programme measures are being introduced which will be far more robust than those currently in force. They apply to almost all aspects of applying Nitrogen fertiliser (both organic and inorganic) and are grouped under the following headings:

- Controlling when Nitrogen is applied
- Provisions for storage of livestock manure
- Limiting the amount of nitrogen applied to land
- Controlling where nitrogen is applied
- Controlling how nitrogen is applied
- Cover crops
- Record keeping

Details of the revised Action Programme are included at Annex 1.

Impact of the regulations

Benefits to state of Welsh environment

The principal intended benefits of revising NVZ designations and Action Programme measures are associated with a reduction in losses of nitrogen (and indirectly other nutrients) to surface and ground water, achieved by:

- controlling the amount of nitrogen applied to land in fertilisers and organic manures
- controlling timing of fertiliser and organic manure application

- controlling methods of fertiliser and organic manure application
- taking steps to manage other risks of pollutant loss.

The main benefits from a reduction in the concentration of nitrates in waters are likely to be:

- improved natural habitats resulting from a reduction in nutrient enrichment of waters and associated eutrophication
- a potential reduction in drinking water treatment costs where abstractions occur from surface or ground water.

There will also be secondary benefits associated with implementation of the Action Programme measures in the form of reductions in some types of greenhouse gas emissions. For example it will significantly reduce CO₂ emissions of the water industry associated with processes for nitrates removal from drinking water.

Cost benefits associated with improvement to Welsh environment

Although there are not specific figures for nitrates, the Environment Agency (2007) estimated that the damage cost of water pollution from agriculture in England and Wales is in the region of £445-872m per year. Based on these figures even a conservative estimate for Wales would put the national cost of agricultural water pollution at between £25-£45m per annum.

Ofwat (2004) estimated that the water industry cost in the Britain to reduce high nitrate levels in drinking water supplies would be £288 million (capital expenditure) and £6 million per annum (operating expenditure) for the 2005-2010 period. Conservative estimates for Wales would give figures of £14.4m capital expenditure and £300k per annum operating costs. Given that agriculture is recognised as a major contributor to diffuse nitrate pollution, the revised NVZ Action Programme could significantly reduce treatment costs in areas within the NVZ designated areas.

Pathogens follow a similar pathway to watercourses as nitrates and therefore a revised Action Programme will also deliver reductions in bacteria (pathogens). There are likely to be benefits and cost savings to the Welsh economy derived from reduced incidences of poor human health at bathing waters, and less contamination of shellfish waters. It is not easy to estimate these benefits however.

Additional expenditure requirements and income foregone on affected farms

Responses to the Assembly Government consultation document – *The Protection of Waters Against Pollution from Agriculture – Consultation on the implementation of the Nitrates Directive in Wales – August 2007* – identified

that three main elements of the proposals will potentially involve additional costs or lost revenue for affected farmers. These are:

- The “whole farm limit” of 170 kg/ha total N
- The requirement for 5 months storage capacity of slurry
- Record keeping and production of management plans

Whole farm limit

An estimation of the financial impact this measure might have on affected farms is shown at Annex 2.

Intensive dairy farms with a high proportion of their land within a NVZ are most likely to be affected, and such farms will have three options as follows:

Option	Cost to affected farms if the option is chosen exclusively (£)
Reduce stock numbers	1,828,350
Acquire additional land	180,736
Export slurry	537,300

In practice, different farms will take different options depending on their circumstances and some farms may employ a combination of two or three of the options.

Therefore, depending on how affected farmers decide to manage the Nitrates Directive “farm limit”, the cost to the industry could range from £181k to £1.828k. In practice the options taken by farmers will vary depending on particular individual circumstance and the figure will fall somewhere between these two figures.

Costs of additional storage

An estimation of the financial impact this measure might have on affected farms is shown at Annex 3.

Consultees (both formally in writing and verbally in farmers’ meetings) have highlighted this as being a major area of concern. However, some of the issues involved are listed below:

- The costs associated with this measure are linked mainly to storage of high available-N manures, which in Wales constitute almost exclusively dairy or beef slurry (but pig slurry and poultry manure are also included in this measure).
- 22 weeks storage is required for collected slurry from housed animals.
- The volume required can be reduced through measures such as
 - Diverting clean water (e.g. rainfall on roofs) away from the slurry store

- ❑ Diverting foul water with low available-N away from the slurry store and applying it to land more frequently during winter
- ❑ Reducing the amount of foul water produced by: i) covering outside stock yards, and ii) covering slurry and silage stores
- ❑ Housing stock in straw bedded housing

If, after considering the above actions, the volume of storage is still not sufficient, then (assuming that reducing stock numbers is not an option) additional storage capacity must be constructed. In many cases extending the capacity of existing stores will not be proportionately cheaper. In conclusion, conforming to the NVZ slurry storage requirements could cost affected farms in Wales a total of about £3.6m.

The Welsh Assembly Government has budgeted for expenditure on a Catchment Sensitive Farming Scheme of £4.1m up to the date in which the new storage requirements come in to force (January 1st 2012) which will provide grants towards slurry storage and handling capacity in targeted areas. All newly designated Nitrate Vulnerable Zones (NVZs) will be included within the areas eligible for these grants.

Record Keeping

In addition to the existing requirements for maintaining records of field-by-field fertiliser applications and farm/field limits, the regulations will require farmers to produce management plans which:

- Calculate the “whole farm” Nitrogen loading limit
- Calculate the crop N requirement for each crop (including grassland) grown on a field-by-field basis.
- Calculate the required storage capacity for slurry
- Assess risks (recorded on a map of the farm) on a field-by-field basis

It is envisaged that Assembly Government will supply a standard template to cover all planning and record keeping aspects and the format of the template will be discussed in detail with industry representatives. Also, in line with the Red Tape Review that Assembly Government DRA is currently undertaking, wherever possible duplication will be avoided, so that plans and records prepared for other purposes will be deemed acceptable for NVZ compliance.

However, time will inevitably be required to produce management plans, keep records and consider farming policy in light of the need to maintain compliance with the regulations.

From anecdotal evidence regarding management plans undertaken for other initiatives (e.g. Tir Cymen) and given the spread of farm sizes (see table at Annex 3) it is estimated that on average 20 hours per farm will be required in the first year. Half this time (10 hours per farm) will be required in each subsequent year. Over a five-year period this totals 60 hours or an average of

12 hours per annum. If costed at £15 per hour, the total cost for the 1093 affected farms will be in the region of £196,740 per annum.

Implications for administration and enforcement

The proposals in this document represent changes to an existing regulatory regime for which enforcement, sanctions and monitoring are already well established and carried out by the Environment Agency. However, additional enforcement costs are still expected although it is anticipated that there will be some benefits to the Environment Agency derived from compliance checking simplifications. The higher annual cost would most likely be incurred in the first 1-2 years when Agency staff training, consultation and advice on the revised Action Programme rules is needed, and any NVZ designation appeals take place. Based on an extrapolation from EA figures for England, an estimate of the additional longer term costs in Wales is within the region of £50,000 per annum.

Potential economic benefits to farmers

Adhering to the regulations will provide an opportunity for some farmers to reduce costs. These will come from:

- General ease of management and flexibility as a consequence of improved storage facilities. This aspect is difficult to quantify exactly
- Greater contribution of Nitrogen from organic manures, as increased storage capacities enable a shift from autumn/winter applications to spring applications. The efficiency of crop uptake of available N in organic material can increase from about 5% (with autumn application) to 35% (with spring application). On dairy farms within NVZ areas, this could equate to a saving of some 200t of ammonium nitrate fertiliser, which if purchased at £400/t, results in an overall saving of £80,000 per annum.

Annex 1

Summary of proposals to revise the Action Programme applicable in designated Nitrate Vulnerable Zones in Wales

The proposed Action programme measures are outlined below – measures that remain unchanged since the last Action Programme are highlighted in ***bold/italics***.

1. Controlling when Nitrogen is applied

Closed periods for organic manure

Organic manures with high available N (>30% of total N), such as slurry and poultry manure, must not be applied to land between the following dates:

Av. Annual Rainfall (mm)	Grassland		Arable land	
	Sandy and shallow soils	All other soils	Sandy and shallow soils	All other soils
Up to 1050	1/9 – 31/12	15/10 – 15/1	1/8 – 31/12	1/10 – 15/1

There will be an exemption to enable registered organic producers to spread a limited amount of organic manure during the closed periods if there is a demonstrable crop Nitrogen requirement

Closed periods for manufactured fertiliser

Manufactured nitrogen fertilisers must not be applied to land during the following periods:

Grassland: 15/9 – 15/1

Arable land: 1/9 – 15/1

Periods when the risk of run-off is high

Do not apply nitrogen fertiliser when:

- the soil is either waterlogged, flooded, frozen hard or snow covered
- heavy rain is forecast within 48 hours

2. Storage requirements for livestock manure

Capacity

Farms that produce livestock manure with high available N must provide the following storage capacities:

- 26 weeks for pig slurry and poultry manure
- 22 weeks for all other slurry

Farmers will be required to use a standard procedure and standard excreta volumes to calculate the volume to which the 22/26 weeks equates. The following deductions from this potential capacity will be permitted:

- volume of manure/slurry exported off the farm
- volume of solids separated from the slurry
- amount of poultry litter (i.e. a mixture of poultry excreta plus bedding) which is stored in an appropriately located, temporary field heap

Storage of solid manure

Poultry litter and solid manures with low available N must be stored:

- in the livestock house
- at a suitable, temporary field site, or
- on concrete constructed to the appropriate standard

The requirements for a suitable field site include the following:

- temporary field heaps must not be located within 50m of a spring, well or borehole or within 10m of a surface water or land drain
- temporary field heaps must not be located in any single position for more than 12 successive months
- there must be a 2 year gap before returning to the same field site

Construction standards

Stores need to meet the construction standards set down in The Control of Pollution (Silage, Slurry and Agricultural Fuel Oil) Regulations 1991 (amended 1997).

3. Controlling how much nitrogen can be applied

The whole farm limit for livestock manures

Livestock manure loadings shall not exceed 170kg/ha of total nitrogen each calendar year averaged over the farm.

Compliance with the whole farm limit must be calculated using a standard procedure. Standard manure nitrogen production figures must also be used except where alternative figures are derived via:

- A decision support tool
- Manure analysis using a method approved by the EA

The field limit for organic manures

A maximum of 250kg/ha/annum total N from organic manure must not be exceeded in any field.

Crop requirement limitation

Farmers must balance, at a field level, the nitrogen requirement of the crop with the nitrogen supply to the crop from all sources.

Farmers must be able to demonstrate that they have undertaken the following mandatory steps:

- assessed the soil nitrogen supply
- assesses the nitrogen requirement of the crop (taking into account Soil Nitrogen Supply)
- assessed the crop available nitrogen supplied from applications of organic manures
- calculated the need for manufactured fertiliser nitrogen by deducting the contribution from organic manures from the nitrogen requirement of the crop

Maximum nitrogen application rates (Nmax) will be set for the main crops. The supply of nitrogen from applications of organic manure and manufactured fertiliser must be below this upper limit. Compliance with Nmax must be calculated using a standard calculation procedure:

- Undertaken at farm level
- Using a minimum level of manure efficiency when calculating the crop available nitrogen supply from livestock manures, as follows:

N fertiliser	Crop availability (% total N)	
	From 1 January 2009	From 1 January 2012
Manufactured	100	100
Cattle slurry	20	35
Pig slurry	25	45
Poultry manure/litter	20	30
FYM*	10	10

* N efficiency values do not increase over time as there are no closed periods for FYM

4. Controlling where nitrogen is applied

Farmers must not spread in locations which will cause nitrogen to enter surface waters either by surface run-off or directly

To this end:

- farmers must undertake a written risk assessment procedure to identify suitable locations for spreading organic manures
- applications of nitrogen fertiliser to land with a steep slope (12° or more) will be prohibited in conditions where there is a high risk of run-off
- applications of organic manure within 50m of a spring, well or borehole shall be prohibited
- applications of organic manure within 10m of a surface water shall be prohibited
- applications of manufactured fertiliser within 2m of a surface water shall be prohibited

- farmers must undertake a field inspection to consider the risk of run-off prior to spreading

5. Controlling how nitrogen is applied

Farmers must not spread in a manner which will cause nitrogen to enter surface waters either by surface run-off or directly

To this end:

- the use of high trajectory, high pressure techniques for making applications of organic manures will be prohibited
- nitrogen fertilisers must be applied in a uniform and accurate manner
- organic manures with low available N applied to bare soils or stubbles prior to crop planting or drilling must be incorporated within 24 hours on all steeply sloping land that is located within 50m of a surface water and which could receive run-off from that land
- organic manures with high available N applied to bare soils or stubbles by broadcast methods prior to crop planting or drilling must be incorporated within 24 hours

6. Record keeping

All records must be kept for 5 years and include the following:

- copies of the completed calculation procedures and risk assessment
- annual field records of the balance between crop requirement and supply of nitrogen from all sources
- imports and exports of livestock manures

Estimation of the cost impact to the farming industry of the revised Whole Farm Nitrogen loading limit

There are two elements that are directly relevant to the Welsh situation and so need to be taken into consideration:

- (i) a reduction of the limit on grassland from 250 kg/ha total N to 170 kg/ha total N
- (ii) based on most recent research, an increase in the standard coefficient for annual Nitrogen production for various classes of livestock. In particular, the annual N output for dairy cows is linked to milk yield – the standard figure for a cow producing 6,000 – 9,000 l/annum will be 101 kg/ha total N).

The majority of farming systems that do not involve dairy cows will not be affected by this Action Programme measure. This is because the standard figures for N output of various beef animals and sheep mean that at all but the most extreme stocking rates for beef/sheep systems, the whole farm limit will not be exceeded.

However, with a standard N output figure of 101 kg/ha for dairy cows, any stocking rate above 1.68 cows/ha will lead to breaching this requirement. It is not unusual for dairy cows to be stocked at rates of up to 2.2 cows/ha.

Affected farmers will have three options:

1. reduce cow numbers
2. acquire additional land
3. export slurry

In calculating the impact of this measure on affected farms, the following assumptions have been made:

- The average total Nitrogen output of a dairy cow is 101 kg/annum
- Current average stocking rate of dairy farms is 2.15 dairy cows per ha.
- The table shows actual numbers of dairy farms (i.e. holdings with >10 cows declared on Single Application Form) with land affected by NVZ designation. These are categorised according to their size and the proportion of land within a designated area.

%age land in an NVZ	No. of farms	mid-range farm size (ha)	Area in NVZ (ha)	Stocking rate reduction (cows/ha)	Dairy cow reduction	TOTAL
26 – 50 ha						
26-50	6	38	14	0.27	23	354
51-75	11	38	24	0.37	98	
75-100	15	38	33	0.47	233	
51 – 75 ha						
26-50	11	63	24	0.27	71	485
51-75	7	63	40	0.37	104	
75-100	12	63	55	0.47	310	
76 – 100 ha						
26-50	3	87	33	0.27	27	501
51-75	4	87	55	0.37	81	
75-100	11	87	76	0.47	393	
> 100 ha						
26-50	4	130	49	0.27	53	811
51-75	4	130	82	0.37	121	
75-100	12	130	113	0.47	637	
TOTAL						2151

- Farms classified as “dairy units” of 25 ha or less will not be impacted as it is likely that such farms are rearing dairy heifers on more extensive systems
- Dairy farms with 75% or more of their land outside an NVZ will not be impacted, as they will have greater flexibility to manage the Nitrogen loading requirement.
- As the proportion of a farm’s land within an NVZ increases, then the flexibility to increase stock numbers on, or export slurry manure to, land outside of an NVZ decreases; i.e. the magnitude of the required reduction in stocking rate increases.

Calculations

1. Reduce stock numbers

The table shows that a reduction in stock numbers of some 2,150 dairy cows will be required on farms in Wales that are (or will be) affected by NVZ designation. If a gross margin per cow of £850 is assumed, then the total income foregone will be £1,828,350.

2. Increase area of land

If farmers rent additional land within an NVZ, this can only be stocked at 1.7 cows per ha. Land taken outside an NVZ could be stocked at around 2.2 cows per ha. Given that the majority of land available will be outside an NVZ then a weighted stocking rate of (say) 2.1 can be assumed. To accommodate 2,151

cows at this stocking rate would require an additional 1,024 ha. At £176.50/ha, the total cost would be £180,736.

3. Export Slurry

2,151 dairy cows will produce 64l of slurry per day. This equates to a total volume of $(2,151 \times 64 \times 365)$ 50,247,360 l/annum. This equates to 50,247 m³. If an average tanker capacity of 6m³ is assumed this gives 8,955 tanker journeys at (say) 2 hours per journey at (say) £30/hour. This gives a total cost of £537,300.

Estimation of the cost impact of the revised requirements for slurry storage

Number of farms affected

The table gives a breakdown of all farms who submitted a Single Application Form which included land in an NVZ (either existing or proposed in the August 2007 consultation). Numbers of farms with different livestock enterprises are also shown as well as a breakdown of farm according to the percentage of land situated in an NVZ.

Enterprises that will be affected

Dairy – it is likely that the larger farms will be the ones that carry herds of milking cows housed on cubicle (with slurry) systems. Also, it will be those with a greater proportion of land designated as NVZ who will have least flexibility when it comes to managing slurry storage.

Beef – beef systems are not universally based on cubicles and slurry systems. For this exercise, it is assumed that only the larger farms will have significant needs for slurry storage.

Pig and poultry – it is difficult to estimate the scale of pig and poultry units on the basis of information on land area alone. It is assumed at present that very few (if any) large scale, intensive production units will be affected.

Costings – assumptions

Farms able to satisfy this measure with no additional capital cost:

- 8 dairy farms (i.e. 10% of all dairy farms between 26 and >100 ha with >50% of land in an NVZ) will be able to satisfy this measure with no additional capital cost
- 10 beef farms (i.e. 10% of all beef farms between 51 and >100 ha with >50% of land in an NVZ) will be able to satisfy this measure with no additional capital cost

Farms needing to make significant capital investment in new slurry storage system and handling systems:

- 34 dairy farms (i.e. 45% of all dairy farms between 26 and >100 ha with >50% of land in an NVZ) @ (say) £40,000
- 43 beef farms (i.e. 45% of all beef farms between 51 and >100 ha with >50% of land in an NVZ) @ (say) £20,000

Farms needing to make modifications to existing systems so that 22 weeks storage is possible (e.g. by reducing the amount of water that enters a store)

- 34 dairy farms (i.e. 45% of all dairy farms between 26 and >100 ha with >50% of land in an NVZ) @ (say) £20,000
- 43 beef farms (i.e. 50% of all beef farms between 51 and >100 ha with >50% of land in an NVZ) @ (say) £12,500

Farms needing to make improvements (e.g. to separate clean and dirty water or to collect leachate from dry manure heaps)

- 68 farms (i.e. 1 in 3 of all farms <10 ha with >50% of land in an NVZ) @ (say) £750.
- 42 farms (i.e. 1 in 3 of all farms 11-25 ha with >50% of land in an NVZ) @ (say) £1000.
- 36 farms (i.e. 1 in 3 of all farms 26-50 ha with >50% land in an NVZ, but not double counting dairy farms from above) @ (say) £1500.
- 10 farms (i.e. 1 in 3 of all farms 51-75 ha with >50% land in an NVZ, but not double counting dairy and beef farms from above) @ (say) £2000.

Costings – figures

34 dairy farms @ £40,000	= 1,360,000
43 beef farms @ £20,000	= 860,000
34 dairy farms @ £20,000	= 680,000
43 beef farms @ £12,500	= 537,500
68 farms (<10 ha) @ £750	= 51,000
42 farms (11-25 ha) @ £1,000	= 42,000
36 farms (26-50 ha) @ £1,500	= 54,000
10 farms (51-75 ha) @ £2,000	= <u>20,000</u>
TOTAL	= 3,604,500

%age Land in NVZ	FARM SIZE (ha)																	
	< 10			11 - 25			26 - 50			51 - 75			75 - 100			> 100		
	Ex	New	Tot	Ex	New	Tot	Ex	New	Tot	Ex	New	Tot	Ex	New	Tot	Ex	New	Tot
All Farms																		
< 25	103	151	204	37	45	82	9	16	25	4	3	7	0	0	0	1	2	3
26-50	12	24	36	24	17	41	20	11	31	14	11	23	3	2	5	6	3	9
51-75	7	8	15	14	13	27	15	13	28	9	7	16	5	3	8	7	4	11
76-100	114	76	190	59	40	99	62	43	105	41	22	63	26	18	44	0	21	21
Farms with > 10 Dairy animals																		
< 25	22	24	46	14	9	23	5	5	10	2	1	3	0	0	0	0	0	0
26-50	1	0	1	5	1	6	4	2	6	5	6	11	2	1	3	2	2	4
51-75	0	0	0	2	1	3	8	3	11	2	5	7	2	2	4	3	1	4
76-100	0	0	0	0	1	1	0	15	15	0	12	12	0	11	11	0	12	12
Farms with > 10 Beef animals																		
< 25	62	75	138	28	36	64	8	12	20	4	3	7	0	0	0	1	2	3
26-50	2	9	11	15	9	24	15	9	24	10	8	18	1	3	4	4	3	7
51-75	1	1	2	7	7	14	12	12	36	7	7	14	4	2	6	7	3	10
76-100	5	7	12	19	15	34	25	27	52	0	16	16	17	12	29	0	17	17
Farms with Pigs or Poultry (> 10 of either)																		
< 25	12	19	31	6	3	9	1	0	1	0	0	0	0	0	0	0	0	0
26-50	1	1	2	1	0	1	2	2	4	1	1	2	0	0	0	0	0	0
51-75	0	1	1		4	0	4	1	0	1	0	0	0	0	0	0	0	0
76-100	13	2	15	7	1	8	9	5	14	0	3	3	2	0	2	1	3	4

Ex = existing NVZ

New = new NVZ

Tot = Total of above

