



## TRANSPORT AND THE ENVIRONMENT COMMITTEE

### AGENDA

**2nd Meeting, 2003 (Session 1)**

**Wednesday 22 January 2003**

The Committee will meet at 9.45 am in Committee Room 1 to consider the following agenda items:

1. **Subordinate Legislation:** The Committee will take evidence on the Designation of Nitrate Vulnerable Zones (Scotland) (No.2) Regulations 2002 (SSI 2002/546) from—

Jim Walker, President, NFU Scotland

Richard Church, Hydrologist, Entec UK Limited

Lisa Schneidau, Convener, Agricultural Task Force, Scottish Wildlife Trust

Fiona Newcombe, Agricultural Task Force, RSPB Scotland

*At approximately 11 am.*

2. **Subordinate Legislation:** The Committee will debate the following motion—

S1M-3731 John Scott: That the Transport and the Environment Committee recommends that nothing further be done under the Designation of Nitrate Vulnerable Zones (Scotland) (No.2) Regulations 2002 (SSI 2002/546).

3. **Subordinate Legislation:** The Committee will consider the following negative instruments—

The Local Authorities' Traffic Orders (Exemptions for Disabled Persons) (Scotland) Amendment Regulations 2002, (SSI 2002/547)

The Public Service Vehicles (Registration of Local Services) (Scotland) Amendment Regulations 2002, (SSI2002/548)

The School Crossing Patrol Sign (Scotland) Regulations 2002, (SSI 2002/549)

The Air Quality Limit Values (Scotland) Amendment Regulations 2002, (SSI 2002/556)

4. **Organic Waste Spread on Land:** The Committee will consider recent developments in relation to Petition PE 327 by the Blairingone and Saline Action Group on Organic Waste Spread on Land.

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The following papers are attached for this meeting:

Submission from NFU Scotland ( <i>Agenda item 1</i> )	TE/03/2/1
Submission from Scottish Environment Link ( <i>Agenda item 1</i> )	TE/03/2/2
Covering note on The Designation of Nitrate Vulnerable Zones (Scotland) (No.2) Regulations 2002, (SSI 2002/546) ( <i>Agenda item 2</i> )	TE/03/2/3
Copy of the instrument, an Executive note and Directive 91/676 EEC ( <i>Agenda item 2</i> )	TE/03/2/4
Covering note on The Local Authorities' Traffic Orders (Exemptions for Disabled Persons) (Scotland) Amendment Regulations 2002, (SSI 2002/547) ( <i>Agenda item 3</i> )	TE/03/2/5
Copy of the instrument plus an Executive note ( <i>Agenda item 3</i> )	TE/03/2/6
Covering note on The Public Service Vehicles (Registration of Local Services) (Scotland) Amendment Regulations 2002, (SSI2002/548) ( <i>Agenda item 3</i> )	TE/03/2/7
Copy of the instrument plus an Executive note ( <i>Agenda item 3</i> )	TE/03/2/8
Covering note on The School Crossing Patrol Sign (Scotland) Regulations 2002, (SSI 2002/549) ( <i>Agenda item 3</i> )	TE/03/2/9

Copy of the instrument plus an Executive note ( <i>Agenda item 3</i> )	TE/03/2/10
Covering note on The Air Quality Limit Values (Scotland) Amendment Regulations 2002, (SSI 2002/556) ( <i>Agenda item 3</i> )	TE/03/2/11
Copy of the instrument, an Executive note and Directive 69/2000 EC ( <i>Agenda item 3</i> )	TE/03/2/12
Paper on petition PE 327 ( <i>Agenda item 4</i> )	TE/03/2/13

**NFU Scotland**

**Proposed Lower  
Nithsdale Nitrate  
Vulnerable Zone**

Review of the Proposed Lower Nithsdale  
Nitrate Vulnerable Zone

January 2003

Entec UK Limited



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**Report for**

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# NFU Scotland

## Proposed Lower Nithsdale Nitrate Vulnerable Zone

Review of the Proposed Lower Nithsdale  
Nitrate Vulnerable Zone

January 2003

Entec UK Limited



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This report has been prepared in a working draft form and has not been finalised or formally reviewed. As such it should be taken as an indication only of the material and conclusions that will form the final report. Any calculations or findings presented here may be changed or altered and should not be taken to reflect Entec's opinions or conclusions.

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# 1. Introduction

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- 1.1.1 The Scottish Executive Environment and Rural Affairs Department (SEERAD) proposes designation of a Nitrate Vulnerable Zone (NVZ) in the Lower Nithsdale catchment. The NFU Scotland (NFUS) has commissioned Entec to provide a technical review of the information presented by SEERAD in support of the designation.
- 1.1.2 This short technical briefing note is based on a review of key documents provided by the NFUS. This includes technical reports by the BGS (2001, 2002) and a consultation paper by the Scottish Executive (2002). The relevant statutory instrument for the European Nitrate Directive (91/676/EEC) has also been examined.
- 1.1.3 Following this review a precognition (proof of evidence) may be developed and submitted by Entec to parliamentary committee on the 22 January 2003.



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## 2. NVZ Designation

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### 2.1 Introduction

- 2.1.1 This Section briefly describes the scope of the Nitrates Directive and the manner by which it has been implemented in Scotland in general, and Nithsdale in particular.

### 2.2 European Nitrates Directive

- 2.2.1 The Nitrates Directive requires member states to identify areas where groundwaters are thought to be at risk of nitrate contamination or have nitrate concentrations greater than 50 mg/l NO<sub>3</sub>. The land draining to such groundwaters are to be designated as NVZs within which member states are required to establish action programmes in order to reduce and prevent further nitrate contamination.

### 2.3 Statutory Instrument

- 2.3.1 The Nitrates Directive came into force in Scottish Law as Statutory Instrument (SI) No. 1564 "The Protection of Water against Agricultural Nitrate Pollution (Scotland) Regulations 1996". The SI has been amended as NVZs have been determined.

- 2.3.2 Schedule 1 of SI (1564) refers to the criteria for identifying the NVZs. It states:

*1. Waters... shall be identified making use, inter alia , of the following criteria:*

*(a) whether surface freshwaters, in particular those used or intended for the abstraction of drinking water, contain or could contain, if action ... is not taken, more than the concentration of nitrates laid down in accordance with the 1975 Directive;*

*(b) whether groundwaters contain more than 50 mg/l nitrates or could contain more than 50 mg/l nitrates if action... is not taken;*

*(c) whether natural freshwater lakes, other freshwater bodies, estuaries, coastal waters and marine waters are found to be eutrophic or in the near future may become eutrophic if action... is not taken.*

*2. In applying these criteria, the Secretary of State shall also take account of:*

*(a) the physical and environmental characteristics of the waters and land;*

*(b) the current understanding of the behaviour of nitrogen compounds in the environment (water and soil);*

*(c) the current understanding of the impact of the action to be taken.*

- 2.3.3 Regulation 6 refers to the establishment of an action programme for the NVZ. The action programme proposals are based around the Code of Good Practice for the

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Prevention of Environmental Pollution from Agricultural Activity Nitrogen and Phosphorous Supplement published by SEERAD. It includes rules relating to:

- the timing of land application of certain types of fertiliser and livestock manure;
- the capacity of storage facilities for livestock manure;
- limits on the application of fertilisers and livestock manure applied to the land each year; and
- a requirement to maintain records.

2.3.4 The focus of the Schedule is the determination of whether nitrate concentrations in groundwater or surface water exist or could in the future exist above 50 mg/l and the presence of eutrophication in surface water bodies. The Schedule does not define the means by which this status is identified. For instance, it is not clear whether the determination of concentration in groundwater is for any sample or for, say, a median value for a representative population of samples.

## 2.4 Methodology

2.4.1 The technical background work for the designation of the NVZs in Scotland was undertaken by British Geological Survey (BGS) and the Macaulay Institute, with funding from the Scottish Executive Agricultural and Biological Research Group Flexible Fund and SEERAD.

2.4.2 The methodology for determining the NVZ areas is described in BGS (2001). In summary, the groundwater-based NVZs were generally defined by overlapping mapped areas of the nitrate leaching potential for a soil calculated by the Macaulay Institute to groundwater vulnerability mapping undertaken by the BGS. The mapped parameters were integrated using a GIS. Areas where highly permeable aquifers with high vulnerability coincided with the Macaulay Institute high or moderate risk leaching zones were identified as potential NVZs.

2.4.3 The surface water sub-catchments associated with the high risk aquifer zones were then also delineated. These surface water catchments were subdivided into the following four classes:

- **Class 1**, local catchments associated with the highly vulnerable and high leaching potential NVZ areas (Area A).
- **Class 2**, local surface water catchments additional to Class 1 with highly vulnerable aquifers and moderate leaching potential NVZ areas (Area B).
- **Class 3**, the upland portion of Class 1 and 2 catchments. These have been generated from a point on the main river just upstream of the last combined Areas A & B.
- **Class 4**, catchments where there is significant evidence of nitrate contamination occurring as exceptions to the risk analysis methodology.

## 2.5 Nithsdale NVZ Assessment

- 2.5.1 BGS (2001) quotes that “*the conceptual model of nitrate leaching developed by MLURI calculates that nitrate leaching is low throughout Dumfries.*” The groundwater vulnerability classification for the proposed Nithsdale NVZ area ranges from the lowest vulnerability class through to the highest. The high vulnerability zones are focussed along the Nithsdale valley and Dumfries areas.
- 2.5.2 Based on the mapping methodology used by the BGS and Macaulay Institute the Nithsdale catchment would not form an NVZ. Instead, the subsequent proposed designation focussed on the evidence of alleged high nitrate concentrations in groundwater sampled within the Nithsdale catchment. This data is discussed in Section 3.
- 2.5.3 BGS (2001) suggests from available evidence of nitrate concentrations in upland surface water that Class 3 surface water catchment areas should be excluded from all NVZs. There is therefore no need to consider upland surface water areas in the following discussion.



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## 3. Water Quality Data

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### 3.1 Introduction

3.1.1 This Section examines the data cited in support of the designation of the Nithsdale NVZ.

### 3.2 Initial Data Analysis

3.2.1 BGS (2001) argues for the inclusion of an NVZ for the Nithsdale catchment based on research presented in MacDonald et al. (2000) and an assessment of nitrate concentrations from private water sources.

3.2.2 BGS (2001) states that the “*research indicates that the average nitrate concentration recharging the aquifer was 40-50 mg/l.*” However, the 40-50 mg/l range mentioned by MacDonald et al. (2000) is calculated from a linear relationship between the percentage of modern water and the nitrate concentration. The linear regression coefficient (a measure of the fit of the relationship to the data) was 0.78 which can not be considered a particularly close fit. The fit is such that the nitrate concentration for 100 % modern water could fit anywhere in the range 35 to 50 mg/l NO<sub>3</sub>. Two of the samples which were determined as 90% modern water contained 32 mg/l and 44 mg/l NO<sub>3</sub>.

3.2.3 However, MacDonald et al. (2000) acknowledges that the deductions that can be drawn on the basis of this approach are limited. For example, the groundwater sampled was a bulk sample from a well head and therefore a blend of groundwater ages and nitrate concentrations.

3.2.4 NO<sub>3</sub> concentrations from the sampling reported by MacDonald et al. (2000) are also generally significantly lower than 50 mg/l. The actual median nitrate value is 27 mg/l (with 25% at 14.7 mg/l and 75% at 34.7 mg/l). One outlying value exceeds 50 mg/l at 126 mg/l NO<sub>3</sub> (Sample 2).

3.2.5 Furthermore, even if modern recharging groundwaters are in the range 40-50 mg/l NO<sub>3</sub>, then the groundwater contamination limit of 50 mg/l will not be exceeded. Only one borehole has been monitored periodically since 1989 (Manse Road), and this indicates that average annual nitrate concentrations have increased from 22 mg/l in 1989 to 26 mg/l in 1999. This shows a small gradual increase in NO<sub>3</sub> but is still well below the limit of 50 mg/l.

3.2.6 BGS (2001) also refers to sample concentrations taken from a database of all available water supply analyses, and noted that for the Nithsdale catchment 21 % of samples are above 50 mg/l with a median value of samples of 24 mg/l. However, it admitted that this sampling is flawed, the statistics being based on “*many unverified private water supplies.*” BGS states “*Private water supplies are often shallow, unprotected springs*”

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*in fields around farms, and therefore, when taken individually, not ideal monitoring points for groundwater chemistry.”*

### 3.3 Further Sampling

- 3.3.1 The limitations associated with the initial data analysis led the Scottish Executive to commission further sampling and analysis of the distribution of nitrate within the Nithsdale catchment in 2002. This is detailed in BGS (2002) and the data is represented in Table 3.1.
- 3.3.2 The locations of 39 sources with nitrate in excess of 40 mg/l were identified from an ‘EnviroCentre’ database of private water supplies (PWS). The database was filtered for erroneous locations and duplicate readings. The database values are reported as the “EnviroCentre” values presented in the Table. Though the database was used to identify sampling points the EnviroCentre analyses were not considered representative and therefore not analysed by BGS (2002).
- 3.3.3 However, the focus on high nitrate sources casts doubt that these are representative of the bulk representative nitrate concentrations in the aquifer.
- 3.3.4 BGS resampled the available sources identified from the database. In the analysis of this resampled data BGS (2002) first stated a site integrity score for the quality of the site for sampling, where *“a good, well constructed site safe from local pollution is scored ‘1’, whilst unsatisfactory sources are marked ‘3’”*. These unsatisfactory sources are generally poorly protected at the well head and close to potential point sources of nitrate contamination (e.g. cattle sheds). Therefore water samples from these may not be representative of the groundwater in the aquifer as a whole, and have been shaded out in the Table.
- 3.3.5 The statistics presented in the Table for each sample group and for the whole population show a considerable reduction in mean concentrations and range of sample concentrations if the *“unsatisfactory sources”* are excluded. The average concentrations for springs, drift and bedrock fall to approximately 17, 36 and 26 mg/l NO<sub>3</sub> respectively and 24 mg/l overall, well below the 50 mg/l NO<sub>3</sub> threshold. Indeed, only one result from the grade 1 and 2 sites exceeds the threshold. Subsequent independent water tests conducted by Buccleuch Estates Limited on private water supplies within the Nithsdale catchment indicate consistently low (less than 6 mg/l NO<sub>3</sub>) concentrations.
- 3.3.6 Though the further nitrate sampling was clearly required, the BGS (2002) survey needs to be repeated several times and for many more reliable boreholes before any trends in nitrate water quality can be identified.

Table 3.1 Nitrate NO3 Sample Results (from BGS (2002))

No.	Location	EnviroCentre Sample (mg/l)	BGS Sample NO3 (mg/l)	Site Integrity (SI)	Type	Statistics
1	Dunsdeer	111	22	3	Springs	Average
2	Drumlanrig	52	5	2		All Sites = 19.6 mg/l
3	Drumlanrig	93	26	2		SI < 3 = 17.4 mg/l
4	Drumlanrig	94	16	3		
5	Monavie	44	8	2		
6	Tynron	44	13	2		
7	Closeburn	130	27	3		
8	Shawhead	193	43	2		
9	Sanquar	118	35	3		
10	Mabie	-	7	1		
11	Irongray	71	19	2		
12	Irongray	76	17	2		
13	Irongray	84	17	2		
14	Irongray	84	19	2		
15	Thornhill	183	57	2	Drift Boreholes	Average
16	Thornhill	72	8	2		All Sites = 43.6 mg/l
17	Thornhill	-	40	1		SI < 3 = 36.3 mg/l
18	Thornhill	124	40	2		
19	Duncow	101	30	3		
20	Hollywood	83	76	3		
21	Hollywood	42	40	3		
22	Thornhill	344	58	3		
23	Dumfries	44	9	1	Bedrock Boreholes	Average
24	Dumfries	115	31	1		All Sites = 41.7 mg/l
25	Mousewald	519	121	3		SI < 3 = 26.5 mg/l
26	Ruthwell	216	36	3		
27	Ruthwell	110	29	3		
28	Lochmaben	119	29	2		
29	Terregles	-	37	2		
No of Samples	All Sites			29		
	Site Integrity 1,2			18		
Mean	All Sites		31.6			
	Site Integrity 1,2		<b>23.6</b>			
95 <sup>th</sup> Percentile	All Sites		68.8			
	Site Integrity 1,2		<b>45.1</b>			
Notes:						Site Integrity Level 3



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## 4. Conclusions and Recommendations

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4.1.1 The importance of the Permian Dumfries aquifer is recognised, but it is considered that for the following reasons the designation of the Nithsdale NVZ is at best premature:

- the risk analysis conducted by BGS and MLURI does not identify the Nithsdale catchment as a high risk area; and
- the existing water quality data is inconclusive, but what evidence there is suggests that nitrate concentrations are relatively low and rising only slowly. The resampled BGS (2002) analyses are biased towards the high nitrate sources and not representative of groundwater as a whole. From these, if the '*unsatisfactory sources*' are excluded the average concentrations for springs, drift and bedrock are approximately 17, 36 and 26 mg/l NO<sub>3</sub> respectively and 24 mg/l overall, and only one result exceeds the 50 mg/l threshold.

4.1.2 Entec would suggest that designation of the Nithsdale NVZ is put on hold pending the collection and analysis of further water quality data. Many of the existing sampling points have been deemed as '*unsatisfactory*' by the BGS, and the sampling of the remaining eighteen points is insufficient to characterise regional aquifer water quality or to identify nitrate trends.



## 5. References

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- BGS, 2001. Groundwater nitrate vulnerable zones for Scotland. BGS Commissioned Report CR/01/250.
- BGS, 2002. The Nith Catchment: Distribution of Nitrate in Groundwater. Draft report prepared for the Scottish Executive. August 2002.
- HMSO, 1996. The Protection of Water Against Agricultural Nitrate Pollution (Scotland) Regulations (1996). SI 1996 No. 1564 (S.137). Her Majesty's Stationery Office.
- MacDonald, A.M., Ball, D.F. and Darling, W.G., 2000. The Permian aquifer of Dumfries: Groundwater Chemistry and Age. BGS Report WD/00/24.
- SEEG, 2002. Protection of Scotlands Water Environment. Consultation on Further Scottish Nitrate Vulnerable Zones. Paper 2002/1.

Date : 18 December 2002  
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## **PROPOSED DESIGNATION OF NITRATE VUNERABLE ZONE (NVZ) IN LOWER NITHSDALE**

### **Background**

The EC Nitrates Directive 1991 obliges member states to introduce legislation to restrict the impact of fertilisers, including natural fertilisers, where it is judged that there is, or could be, a threat to the environment. Member states can declare individual Nitrate Vulnerable Zones (NVZs) on the basis of scientific evidence.

The Scottish Executive proposes that lower Nithsdale, from around Thornhill to the sea be designated as a Nitrate Vulnerable Zone (NVZ). The statutory instrument to implement the designation is subject to annulment until 31 January 2002, with the Transport and Environment Committee designated as lead Committee. Initial proposals to designate this area were withdrawn because of a lack of evidence.

The legislation requires action only by farmers and not by any other source of nitrates leaching to underground water.

### **Key points**

- The EU Nitrates Directive obliges evidence-based designation, i.e. measurement of readings above, or likely to be above if action is not taken, 50 mg/litre of dissolved nitrates.
- Regular readings over a period of time are required to substantiate that a problem exists.
- On initial examination of this area, no justification was found. The proposal to designate was withdrawn.
- The Scottish Executive ordered a second survey of new sites. One failing site, at an unspecified location near Thornhill was reported in the month of August. This is the sole evidence for the proposed designation.

### **Lack of Evidence**

- If the Minister has been advised that the British Geological Survey (BGS) has a new reading from groundwater in the Dumfries aquifer which showed significant contamination, it follows that they don't have old readings. If they had, those would have been used to support the original proposed designation which was later withdrawn.
- The evidence does not comply with the requirements of the Directive. Designation evidence on groundwater has to be gathered at regular intervals over one year. The Executive has only a single point observation at Thornhill which BGS judge as admissible, as grade 2 on a 1 to 3 scale of suitability.

- Grade 2 on a 1 to 3 scale, indicates less than full confidence by BGS that the sampling point has not been subject to surface water contamination from an isolated point source of pollution (the Directive tackles diffuse pollution). Local conditions are also an issue affecting this point. A reading of only 8mg was in the same area as the only failure reading of 57mg.
- An sample this summer in Nithsdale may have been significantly affected by the extremely wet weather. A series of observations from now on might reveal that the August reading was an aberration. Given the peculiar conditions, the Minister should take a second opinion and ask BGS to continue monitoring of the site at regular intervals.

### **Directive Rules**

- Local conditions, knowledge of the behaviour of nitrogen compounds in the environment and the impact of prospective action must be taken into account. [Nitrates Directive, Annex I] A feature of the proposed area is the very high level of afforestation. Trees can capture air pollutants containing nitrogen.
- The Directive obliges, for the purposes of designation and revising designation, monitoring of the nitrate concentration in freshwaters over one year in groundwater aquifers at regular intervals. In surface waters monitoring must be at least monthly and more frequently during flood periods –. [Art 6.1(a)] Not enough time has elapsed for BGS to have satisfied the “over one year...at regular intervals” rule. Therefore, the Minister is under no obligation to act at this time.

### **What are the implications for farmers?**

- NVZ designation obliges measures which farmers must implement within a reasonable timescale. Inside NVZs, there are rules for use of animal manures (including slurries) and for chemical fertilisers (including sewage sludge). Records have to be kept of their use. There are absolute limits on the amount of animal manures that can be used in a NVZ – up to 210kg of Nitrogen (N) content per hectare per year for the initial period and 170kgN thereafter.
- Manure/slurry storage is the major cost issue. Within NVZs, producers have to observe closed periods when manure and slurry cannot be applied to certain classes of land. This can give rise to substantial expenditure on storage facilities at a time when farm incomes are very low.

### **Conclusions**

- The statutory instrument should be annulled and the Executive should undertake further monitoring to provide at least the minimum evidence required by the Directive to justify any future designation.
- The evidence cited to justify the designation of the Nithsdale as an NVZ is insubstantial and does not meet the requirements of the Directive it seeks to serve.
- There could be severe implications for local farmers of this proposed designation, despite the obvious lack of evidence.



## Nitrate Vulnerable Zones

Evidence to Transport and Environment Committee

### Summary

RSPB Scotland<sup>1</sup> has been disappointed with the Scottish Executive's progress in implementing the Nitrates Directive. An earlier and well-planned approach, working in partnership with agricultural and environmental organisation could have led to real benefits for the Scottish countryside.

RSPB Scotland welcomes proposals to designate the Lower Nithsdale area. The British Geological survey indicates nitrate levels over the level that the EC Nitrates Directive requires designation to be made. The Directive also requires the designation of waters that could be at risk from pollution if no action is taken. If heavy rainfall had contributed to the high reading, then these waters are 'at risk' and should be designated.

### Why does RSPB Scotland support NVZs?

Chemical pollution from agricultural sources has been shown to have impacts on populations of wild birds, both directly (for example, through eutrophication of water courses) and indirectly (through the mechanical applications of chemicals).

RSPB Scotland welcomed the Nitrates Directive as an opportunity for Government, agricultural and environmental interests in Scotland to work together to reduce chemical pollution. This reduction would promote environmental justice and have many benefits including:

- Economic benefits for farmers as inputs are reduced
- A healthier countryside full of wildlife
- Promote Scotland and its produce as clean and green
- Reduced costs of removing chemicals from our drinking water

### The NVZ process in Scotland

RSPB Scotland has been very disappointed with SEERAD's minimalist approach to NVZs. These disappointments include:

- Actions fail to encourage good practice in land management.
- There has been little integration with other policies, for example set-aside. We would wish to see farmers place set-aside along watercourses where possible.
- The designation of land has been minimalist, and has not followed the precautionary principle. We advocate further designation of intensive arable and livestock rearing areas of Scotland (such as the area proposed by SEERAD in January 2002, plus Ayrshire and Dumfries and Galloway). This would avoid perceived discrimination and raise environmental standards across Scotland.
- The designation of land does not adequately address the Directive's requirement *to designate waters, which could be affected by pollution if action is not taken.*

For further information, please contact:

<sup>1</sup> RSPB Scotland, which has over 70 000 members across Scotland, takes action to conserve wild birds and the habitats they depend on. Sustainable agriculture is essential to halt and reverse the declines of many populations of wild birds that feed or nest on farmland in Scotland. We manage over half our reserves by farming, have agreements with 70 farmers and crofters, undertake scientific, economic and policy research and run an advisory programme. We have been advocating policies on NVZs for over 5 years.

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**SSI Cover Note For Committee Meeting**

**SSI title and number:** The Designation of Nitrate Vulnerable Zones (Scotland) (No. 2) Regulations 2002, (SSI 2002/546)

**Type of Instrument:** Negative

**Meeting:** 2nd meeting, 22 January 2003

**Date circulated to members:** 18 December 2002

**Motion for annulment lodged:** Yes

**T and E deadline to consider SSI:** 27th January 2003

**SSI drawn to Parliament's attention by Sub Leg Committee:** No

**Motions for Annulment - Procedure**

1. The motion for annulment reads: "That the Transport and the Environment Committee recommends that nothing further be done under the Designation of Nitrate Vulnerable Zones (Scotland) (No. 2) Regulations 2002, (SSI 2002/546)".
2. The Committee has adopted the practice of holding an informal session before the formal debate to raise technical points of clarification on the instrument. Minister's officials may take part in the informal discussion.
3. During the formal debate, the member lodging the motion, John Scott MSP, will be invited to speak to the motion and then formally move it. The Minister is then invited to respond, followed by other members of the Committee.
4. The Minister will then be given an opportunity to respond to points raised in the debate, after which the mover of the motion can make any concluding remarks.
5. The mover of the motion will then be asked whether he wishes to press the motion or whether he wishes to withdraw it. If the member wishes to withdraw the motion, and any member objects, the question on the motion must be put.
6. Only members of the Committee can vote on the motion. If the motion is *disagreed to*, the Committee has decided not to recommend annulment. If the motion is *agreed to*, the Parliamentary Bureau must then lodge a motion for the whole Parliament to consider proposing that nothing further is to be done under the instrument.
7. The Committee's report on the instrument to the Parliament records the outcome of the debate on the motion.

**SSI Cover Note For Committee Meeting**

**SSI title and number:** The Local Authorities' Traffic Orders (Exemptions for Disabled Persons) (Scotland) Amendment Regulations 2002, (SSI 2002/547)

**Type of Instrument:** Negative

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**Motion for annulment lodged:** No

**T and E deadline to consider SSI:** 27th January 2003

**SSI drawn to Parliament's attention by Sub Leg Committee:** No

**SSI Cover Note For Committee Meeting**

**SSI title and number:** The Public Service Vehicles (Registration of Local Services) (Scotland) Amendment Regulations 2002, (SSI 2002/548)

**Type of Instrument:** Negative

**Meeting:** 2nd meeting, 22 January 2003

**Date circulated to members:** 18 December 2002

**Motion for annulment lodged:** No

**T and E deadline to consider SSI:** 27th January 2003

**SSI drawn to Parliament's attention by Sub Leg Committee:** No

**SSI Cover Note For Committee Meeting**

**SSI title and number:** The School Crossing Patrol Sign (Scotland) Regulations 2002, (SSI 2002/549)

**Type of Instrument:** Negative

**Meeting:** 2nd meeting, 22 January 2003

**Date circulated to members:** 18 December 2002

**Motion for annulment lodged:** No

**T and E deadline to consider SSI:** 27th January 2003

**SSI drawn to Parliament's attention by Sub Leg Committee:** No

**TRANSPORT AND THE ENVIRONMENT COMMITTEE****PETITION PE 327 BY THE BLAIRINGONE AND SALINE ACTION GROUP ON  
ORGANIC WASTE SPREAD ON LAND**

**Subject:** Paper on the Committee's consideration of Petition PE 327 by the Blairingone and Saline Action Group on Organic Waste Spread on Land

**Meeting:** 2nd Meeting, 22 January 2003

**Author:** Senior Assistant Clerk

**Introduction**

1. This paper updates members on correspondence received in connection with Petition PE327 on organic waste spread on land. The paper invites members to note the recent developments in relation to the petition, and invites the Committee to conclude its consideration of the petition by noting that a reporter from the Public Petitions Committee is taking forward consideration of the petitioners' concerns which relate to health matters.

**Environmental Aspects to the Petition**

2. Members will recall that on 10 October 2002 a debate was held in the Parliament on the Committee's report on Petition PE327. During that debate, the Deputy Minister for Environment and Rural Development gave a commitment to publish consultation proposals for amendments to the Waste Management Licensing Regulations These proposals have now been published<sup>1</sup>.
3. During the debate, the Minister also addressed three questions relating to the environmental aspects of the petition, which had been raised by the Committee when it discussed the Executive's response to its report. These issues were:
  - the timing of the consultation on amendments to the Waste Management Licensing Regulations 1994, and the likely timeframe for amending the Regulations following its conclusion;
  - the requirement under the new regulations for those who wish to spread waste on land to demonstrate agricultural benefit and the likely impact of this burden of proof on legitimate agricultural activities; and
  - the powers available to Ministers and other authorities to address quickly urgent environmental problems created by waste spreading at individual sites.
4. Following the debate the Minister formally responded to the Committee's questions in a letter to the Convener, and this letter is attached at Annex A.

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<sup>1</sup> <http://www.scotland.gov.uk/consultations/environment/pawm-00.asp>

Member may wish to note that the deadline for the consultation on amendments to the Waste Management Licensing Regulations is 27 January 2003.

### **Health Aspects to the Petition**

5. The Committee noted at a previous meeting that the health elements of the petition still required to be fully addressed. The Committee had previously given the Health and Community Care Committee the opportunity to take forward the petitioners' health concerns, but the Convener of that Committee had indicated that the Committee's workload prevented it from doing so. During the Parliamentary debate on the Committee's report, however, the suggestion was made that a reporter from the Public Petitions Committee could investigate the health aspects to the petition.
6. Following discussions between the Convener and the Conveners of the Health and Community Care Committee and the Public Petitions Committee (PPC), it was agreed that the appointment of a reporter from the PPC would be an appropriate way forward. Dorothy-Grace Elder has been identified as a reporter from the PPC (and she is also a member of the Health and Community Care Committee). The PPC are currently making arrangements for the appointment of an adviser to support Dorothy-Grace Elder in her work.
7. The Committee is invited to agree to refer the petition back to the Public Petitions Committee to formally allow the reporter to undertake her work on the health aspects of the petition.
8. Members will recall that the Committee had agreed to write to the Minister for Health and Community Care Committee on the powers available to Ministers and public health officials to address urgent health concerns which might arise from spreading of waste on land. A response has now been received and it is attached at Annex B. It is suggested that members may wish to pass this response to the Public Petitions Committee to allow its reporter to take it into account in her work.

### **Conclusion**

9. At the meeting at which the Committee discussed the response from the Executive to its report on the petition, members raised three outstanding points on the environmental matters. A response has been received and members have had the opportunity to debate the report and these points in the Chamber. These were the only outstanding points on environmental issues raised by members, and it is recommended that members may wish to conclude its consideration of this aspect of the petition.
10. In relation to the health aspects of the petition, the Committee is invited to conclude its consideration of the petition by referring the petition to the Public Petitions Committee to allow the reporter on the petition from the PPC to formally undertake her work. The Committee is also invited to pass the correspondence received from the Scottish Executive Health Department to the PPC.

## ANNEX A: LETTER FROM DEPUTY MINISTER FOR ENVIRONMENT AND RURAL DEVELOPMENT

Deputy Minister for Environment & Rural Development  
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October 2002

Before the recent debate on the Transport & Environment Committee's report on organic waste spread on land, you were kind enough to advise me of specific questions the Committee had with respect to some aspects of work on this issue. While I was able to address them briefly within the time constraints of the debate I would like to take this opportunity to give you a fuller answer. I would like to consider the Committee's three questions (given in bold) in turn.

**1. Can you provide more detailed information on the timing of the consultation on amendments to the Waste Management Licensing Regulations 1994, and the likely timeframe for amending the Regulations following its conclusion?**

The Executive continues to aim to issue consultation papers by late Autumn 2002. Provided no difficulties come to light during the consultation, amended Regulations should be in force by the Spring of 2003.

**2. The Committee notes that under the amended Regulations those who intend to spread waste would have to demonstrate agricultural benefit before spreading. The Committee seeks information on the likely impact of this burden of proof on legitimate agricultural activities and whether it is intended that there will be exemptions from the Regulations for any such activities.**

The requirements to demonstrate agricultural benefit before spreading are aimed to impact positively on spreading activities and to prevent environmental pollution. Demonstration of agricultural benefit should not be regarded as a burden, but as being necessary to assure all concerned that the activity is in fact "legitimate" and that appropriate beneficial material is being spread on the land. It would not be appropriate to allow exemption of specific activities simply because they appear to be, or are assumed to be "legitimate". For an activity to be "legitimate" it would have to be proved to be so. I am well aware that many farmers undertake spreading activities which do indeed provide agricultural benefit. The reversal of

the burden of proof will not prevent these at all. A good example is the spreading of treated sewage sludge. Where this is done in accordance with best practice, this activity is beneficial not only from the point of view of providing nutrients, but also from that of conditioning the soil. Where this activity is undertaken, Scottish Water carries out, on the farmer's behalf, the necessary investigations, and will be able to provide proof that spreading sludge in accordance with specifications is of agricultural benefit.

On the other hand, the reversal of the burden of proof will provide more confidence that some of the practices mentioned in the debate are justifiable. During the debate George Reid MSP gave the example of composting carrying on at Argaty in connection with a mushroom farm. While I would not want to comment on the merits of this particular case the reversal of the burden of proof would certainly require the operator to demonstrate agricultural benefit. All parties would thus have confidence that there was no question of exploiting a loophole.

I should confirm, however, that we do not intend to restrict the normal use by farmers of their own slurries and farmyard manures as fertiliser. As you will be aware it is nevertheless always good practice to keep a record of nutrients spread to soil in this way. The *PEPFAA DOs and DON'Ts Guide*, which was recently sent out to all farmers and known contractors, recommends the drawing up of farm waste management plans and nutrient plans. In some cases, where there is a legislative requirement, such plans are compulsory. Farmers following this aspect of the *PEPFAA Guide* will be ensuring that they make the most efficient use of fertilisers and would be in an excellent position to demonstrate agricultural benefit to their farm or holding.

### **3. The Committee seeks information on the powers available to you and other authorities to address quickly urgent environmental problems created by waste spreading at individual sites.**

The most urgent environmental problems encountered in connection with the spreading of waste on land are likely to be offensive odour, water pollution, and potential harm to human health or to flora and/or fauna.

The Environment Protection Act 1990 prescribes means by which SEPA can stop licensed activities which, result in pollution of the environment or harm to human health but no similar statutory provision and means are available to SEPA relating to activities that are exempt from licensing requirements. Where exempt activities result in pollution of the environment or harm to human health SEPA's only means of action are to submit a report to the Procurator Fiscal recommending prosecution under Section 33 of the Act or, potentially, to seek an interdict. The question of interdicts will be considered below. Prosecution is, of course, not a quick solution to an environmental problem: SEPA will require to prepare a report and then submit it to the Procurator Fiscal who will then require to consider whether or not it is in the public interest to raise proceedings. Where there is a breach of s33 there is no statutory provision to enable SEPA to prevent the activity continuing.

SEPA also has powers under section 59 of the 1990 Act to serve a notice on the occupier of land where that person has deposited waste or knowingly caused or knowingly permitted waste to be deposited in contravention of section 33(1). The notice can require the person to remove the waste or take steps to eliminate or reduce the consequences of the deposit. The limits of the powers under section 59 must however be noted: the waste must have been "deposited", the notice can only be served on the "occupier", a minimum period of 21 days

must be given for compliance with the notice, and the person who receives the notice can appeal against it to a Sheriff, which leads to the notice having no effect until the appeal is concluded. It should be noted that in many cases waste is spread on land by persons who are not “occupiers” of the land in question and in these cases SEPA’s powers under section 59 are limited.

Where a person fails to comply with a section 59 notice, SEPA is empowered to take the steps itself and recover the expense from that person. In addition, where SEPA considers that in order to remove or prevent pollution or harm to human health it is necessary that the waste be forthwith removed or other steps taken to eliminate or reduce the consequences of its deposit or both; or there is no occupier or the occupier neither made nor knowingly permitted the deposit, SEPA may remove the waste or take other steps to eliminate or reduce the consequences and is entitled to recover costs.

Where the spreading of waste leads to pollution of controlled waters, if SEPA has evidence of a breach of Section 30F of the Control of Pollution Act 1974 (as amended) it may decide, in accordance with its enforcement policy to report this breach to the Procurator Fiscal. Under the 1974 Act SEPA may also serve an enforcement notice where there is a breach of a consent granted under the terms of the Act.

While there are no general statutory powers to seek interdict available to SEPA Section 37(1)(a) of the Environment Act 1995 gives it the power to do anything which, in its opinion, is calculated to facilitate or is conducive or incidental to, the carrying out of its functions. This could enable SEPA to seek interdict. However, though there are examples of its having done so, it is worthwhile for SEPA to seek interdict only in circumstances which would persuade the court that an activity involving serious pollution was on-going and likely to persist if interdict were not granted.

Turning to local authorities, under the Environmental Protection Act 1990 they have powers to act on nuisance issues. They can serve a notice requiring the abatement of the nuisance prohibiting or restricting its occurrence or recurrence when satisfied that a statutory nuisance exists. The notice should specify the time or times within which the requirements of the notice are to be complied with. Such powers can be used on any premises in such a state so as to be prejudicial to health or a nuisance. They may also be used with respect to dust, steam smell or other effluvia arising on industrial, trade or business premises and being prejudicial to health or a nuisance, and in connection with any accumulation or deposit which is prejudicial to health or a nuisance. How soon the relevant local authority serves such a notice is a matter for that local authority.

I hope the foregoing is of assistance to the Committee. I would like to conclude by repeating the assurance I gave during the debate that we are working on the issues which have been identified in the course of the Committee’s considerations, and that we will be taking the further concrete steps I outlined soon.

**ALLAN WILSON**

## **ANNEX B: LETTER FROM SCOTTISH EXECUTIVE HEALTH DEPARTMENT**

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8 January 2003

Dear Callum,

### **PETITION PE 327 ON ORGANIC WASTE SPREAD ON LAND**

I am responding on behalf of the Minister for Health and Community Care to the letter dated 29<sup>th</sup> October 2002 from the Convener of the T&E Committee. It asked for "information on the powers available to public health officials to address urgent public health concerns which might arise from the spreading of waste on land".

Responsibility for protection of the health of the local population rests jointly with the local NHS Board and the Local Authority. However, health risks arising from a work activity that affect workers or members of the public come within the scope of legislation enforced by the HSE.

In general however, the HSE can only act under the law where there is evidence of a risk to health. Therefore, HSE action would depend on the degree to which the link between the work activity and any associated health effect has indeed been established.

Investigation of the possible health effects of this particular activity would properly be the locus of the NHS Board and the Local Authority who would co-operate as appropriate. The need for any such investigation would normally be a matter for decision by the local Director of Public Health in consultation with the Environmental Health Department of the Local Authority. Should such an investigation indeed indicate a work-related health risk for the local community, then the HSE would be alerted.

I hope that this is helpful

Yours sincerely,

**TREVOR LODGE**