



SCOTTISH EXECUTIVE

GUIDANCE ON THE GROUNDWATER REGULATIONS 1998

**Scottish Executive Environment and Rural Affairs
Department**

Water Environment Unit

June 2003

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SECTION I-INTRODUCTION

1. This Guidance has been prepared to explain clearly the purpose and contents of the Groundwater Regulations 1998 (“the Regulations”), which fully came into force in April 1999. This Guidance is for use in Scotland only. For any operation on land that straddles the Scotland-England border, operators will need to take account of the groundwater guidance produced by the Department for Environment, Food and Rural Affairs (DEFRA) for England and Wales - entitled 'Guidance on the Groundwater Regulations 1998', March 2001 - available electronically on weblink <http://www.defra.gov.uk>.

2. The Regulations complete the implementation of the obligations of the Groundwater Directive (80/68/EEC) (“the Directive”). The purpose of this Directive is to prevent the pollution of groundwater by substances belonging to families or groups of substances described in Lists I and II of the Annex to the Directive, and, as far as possible, to check or eliminate the consequences of pollution which has already occurred. In particular the aim of the Directive is to prevent the discharge of List I substances, and to limit the discharge of List II substances, to groundwater. The Directive aims therefore, to provide enhanced protection for groundwater.

Summary

3. The Regulations prohibit discharges of List I substances to groundwater, and limit the discharge of List II substances so as to prevent pollution of groundwater. These requirements apply to all direct and indirect discharges to groundwater, including discharges authorised under the existing requirements of the legislation mentioned in paragraph 7.

4. The Scottish Environment Protection Agency (SEPA) has responsibility for the enforcement of the Groundwater Regulations. Before it may issue an authorisation for a disposal of any List I or List II substance, or tipping for the purpose of its disposal, SEPA must consider the prior investigation submitted by the applicant.

5. An authorisation may be made under Regulation 18. Regulation 16 allows SEPA to recover the cost of enforcing the Regulations. SEPA's Groundwater Regulations Charging Scheme sets out the costs that apply for applications and annual subsistence charges, both of which may be subject to annual review. Regulation 19 empowers SEPA to issue notices that may prohibit, or impose conditions on, activities other than disposals, which could result in an indirect discharge of listed substances to groundwater.

6. Under the Regulations it is an offence to do any of the following:
- a. cause or knowingly permit the disposal, or tipping for the purpose of disposal, of any List I or List II substance in circumstances which might lead to its introduction into groundwater, without (or in breach of) an authorisation under Regulation 18;
 - b. cause or knowingly permit an activity to be carried out contrary to a notice issued under Regulation 19;
 - c. contravene an authorisation under Regulation 18 or 19.

These constitute offences under section 31 of the Control of Pollution Act 1974 (“CoPA”) referred to below.

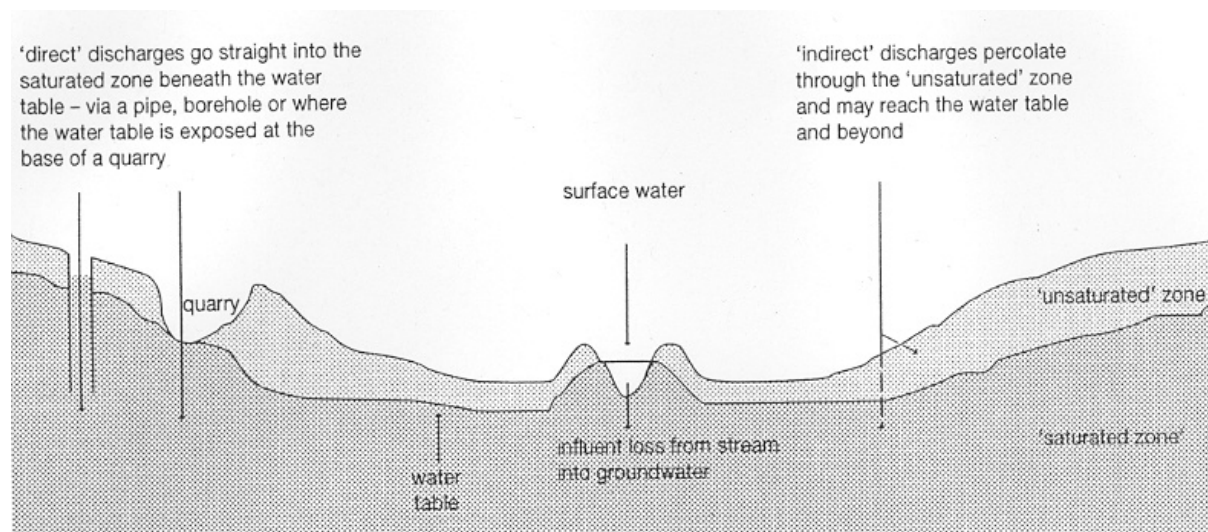
7. Activities that fall within the scope of these Regulations are not necessarily free from other legal controls. In Scotland the Water Environment and Water Services (Scotland) Act 2003 sets out new arrangements for the protection of the water environment, including groundwater. The protection of groundwater from waste treatment, recovery, storage and disposal activities is also provided for in the Pollution Prevention and Control (Scotland) Regulations 2000, Environmental Protection Act 1990 (“the 1990 Act”), the Waste Management Licensing Regulations 1994 and CoPA. In particular, section 31 of CoPA provides for the prevention of poisonous, noxious or polluting matters from entering controlled waters - which by definition in that Act includes groundwater - and to prohibit or restrict particular activities likely to result in pollution of the waters.

What is groundwater?

8. Groundwater is an important natural resource for Scotland, providing drinking water (both public – from Scottish Water - and private supplies), industrial uses (such as mineral water bottling), and as a source of water for the wider aquatic environment, including wetlands and rivers.

9. Groundwater is rainwater that has infiltrated and collected in permeable rocks below the surface. These bodies of groundwater are known as aquifers. Groundwater is all water that is below the surface of the ground in direct contact with the ground or subsoil. The saturated zone is where all the cracks in the rock and all the pore spaces between the grains of rock are totally filled with water. The upper limit of the saturated zone may be thought of as the water table. Above the water table is the unsaturated zone, this is where the cracks and pore spaces in the rock are partly filled with water and partly filled with air. (The Regulation’s definition of groundwater is given in paragraph 14).

10. Pollution of groundwater occurs slowly; is often unsuspected, and it can be many years before the true extent of the problem is known. It is important to protect groundwater since once polluted it is very difficult and costly to restore to its natural state and may take many years before it is suitable for use again – in certain cases it may even be technically unfeasible to reinstate it.



Cross-section showing examples of direct and indirect discharges to groundwater.

11. The Regulations control both direct and indirect discharges to groundwater. An indirect discharge means the introduction into groundwater of any substance following percolation through the ground or subsoil. A direct discharge is one without percolation, straight into groundwater.

SECTION II - SCOPE OF THE REGULATIONS

Regulation 1 - Citation, extent, commencement and interpretation

12. The Regulations apply to Scotland, England and Wales. Parallel Regulations apply in Northern Ireland (The Groundwater Regulations (Northern Ireland) 1998).

13. The Regulations came into force, as prescribed in **Regulation 1**, as follows:

- a. on 2 December 1998, Regulations 1 and 16 (1), which are essentially technical provisions. Regulation 1 sets out the commencement provisions, and defines the terms used in the Regulations. Regulation 16(1) empowers SEPA to make the charges under the Environment Act 1995 ("the 1995 Act") in order to recover the costs of administering applications for authorisation;
- b. on 1 January 1999, Regulation 23. This sets out the transitional arrangements which applied between 1 January and 1 April 1999 when applications for existing disposals were deemed to be authorised until otherwise processed by SEPA;
- c. on 1 April 1999, the remainder of the Regulations.

14. With regard to definitions, Regulation 1 defines groundwater as "all water which is below the surface of the ground in the saturation zone and in direct contact with the ground or subsoil" (see diagram above). This definition is taken from Article 2(a) of the Directive.

15. The Regulations control both direct and indirect discharges to groundwater. An indirect discharge is defined in Regulation 1 as 'the introduction into groundwater of any substance in List I or II after percolation through the ground or subsoil'. Regulation 1 defines a direct discharge as 'the introduction into groundwater of any substance in List I or II without percolation through the ground or subsoil'.

16. The Regulations deal with groups and families of substances, which belong to Lists I and II, and which are set out in the Schedule to the Regulations. Specific requirements for the control of List I and List II substances, and the distinction in this respect between them, are set out at Regulations 4 and 5. Paragraphs 19-23 below provide further detail.

Regulation 2 - Exclusions from the Groundwater Regulations 1998

17. Regulation 2 provides that the Regulations do not apply to the following discharges and activities:

- a. *matter containing radioactive substances. (This type of discharge is controlled under the Radioactive Substances Act 1993);*
- b. *domestic effluent discharged in certain circumstances from isolated dwellings.*

17.1 This exclusion applies to isolated dwellings which are not connected to a mains sewerage system, AND which are outside areas protected for the abstraction of water for human consumption. However, where SEPA considers that any discharge

from an isolated dwelling which is outside a protected area, but which would nevertheless present an unacceptable risk to groundwater used for drinking purposes, it may use its powers under the Control Of Pollution Act 1974 to control or prohibit the discharge.

c. Discharges containing List I or II substances in quantities and concentrations so small as to pose no present or future threat to groundwater quality

17.2 The Regulations do not apply to any discharge containing a quantity and concentration of listed substances found by SEPA to be "so small as to obviate any present or future danger of deterioration in the quality of the receiving groundwater". This is not a numeric standard, and the European Court of Justice (in a ruling against Germany in 1992) has ruled that "if the quantity of substances in List I or II contained in discharges of other substances is such that the risk of pollution cannot automatically be excluded, the Directive is applicable". For List I substances, this exclusion is generally taken by SEPA to be the natural background levels, which are generally below the limits of detection. In terms of List II substances, the exclusion is generally taken to apply where concentrations of listed substances in the waste matter to be disposed of do not exceed the limits set by the EC Drinking Water Directive (80/778/EEC; to be superseded by 98/83/EC), unless more stringent standards are appropriate to protect surface waters or terrestrial ecosystems dependent on groundwater. In all cases it will be prudent to assume that authorisation for disposal to land is necessary, and therefore to seek SEPA's advice.

d. Activities for which a licence under the Waste Management Licensing Regulations 1994 is required

17.3 Such activities are excluded from the Groundwater Regulations because Regulation 15 of the Waste Management Licensing Regulations already implements the Groundwater Directive for the purpose of that licensing regime. Waste Management Licences should therefore contain conditions which prevent List I substances reaching, or List II substances polluting, groundwater. (It should be noted that many waste management facilities will soon be licensed under the Pollution Prevention and Control regime, but that PPC permits can satisfy the requirements of an authorisation under the Regulations.)

Regulation 3 – Discharge of functions

18. In order to ensure that the provisions of the Regulations are implemented, Regulation 3 requires SEPA to use its powers in these Regulations in conjunction with its powers in Part II of the Control Of Pollution Act 1974 and Part I of the Environmental Protection Act 1990. These powers are specifically to prevent the direct or indirect discharge of List I substances to groundwater and to control pollution resulting from the direct or indirect discharge of List II substances, as set out in Regulations 4 to 13.

Definition of List I and II substances

19. The Schedule is derived from that in the Groundwater Directive, and is similar in its overall coverage to the relevant part of the Annex to the Dangerous Substances Directive (76/464/EEC).

20. Substances belong to List I if they:-

- are members of the categories in paragraph 1(1) of the Schedule, and
- have not been determined by the UK environmental Agencies via the Joint Agency Groundwater Directive Advisory Group¹ to be inappropriate to List I on the basis of a low risk of toxicity, persistence and bioaccumulation.

21. Substances belong to List II if they :-

- could have a harmful effect on groundwater, and
- are members of the categories in paragraph 2(1), or
- are members of categories in paragraph 1(1) of the Schedule which have been determined by the UK environmental Agencies via the Joint Agency Groundwater Directive Advisory Group to be inappropriate to List I on the basis of a low risk of toxicity, persistence and bioaccumulation.

22. Substances which are not in List I or List II are not subject to the provisions of these Regulations.

23. The Joint Agency Groundwater Directive Advisory Group (JAGDAG) will periodically consult on further substances as they are considered. The final list of determinations was published in 2002 and is available on the Scottish Executive's website. For more information, you should in the first instance contact the Ecotoxicology National Centre, SEPA, 5 Redwood Crescent, Peel Park, East Kilbride, G74 5PP, to obtain the "Classification of Listed Substances for the Purposes of the EC Groundwater Directive (80/68/EEC)". This sets out the methods used in the assessment procedures. Comments on the findings of the Advisory Group should be directed to SEPA at this address and copied to the Water Environment Unit, Scottish Executive Environment and Rural Affairs Department, Area 1-H, Victoria Quay, Edinburgh, EH6 6QQ. Paragraph 3 of the Schedule to the Groundwater Regulations also enables the Ministers to review the Agencies' classification of substances and notify the Agencies of their decision, whereupon SEPA is obliged to give effect to that decision.

1. ¹ The Joint Agency Groundwater Directive Advisory Group comprises representatives from SEPA, the Environment Agency, DEFRA, the Northern Ireland Environment and Heritage Service, industrial sectors and academic institutes. They consider individual substances based upon their chemical composition, properties or use, reflecting the nature of the families and groups of substances set out in paragraphs 1(1) and 2(1) of the Schedule to the Regulations. JAGDAG's role is essentially to ensure that assessment of substances is undertaken in a scientifically robust and stringent manner, in line with the definitions of the List I and II families, and that appropriate sources of information have been identified. Assessments take account of the chemical nature of the substances and the toxicity of the substances. These are based on a series of criteria for the relevant characteristics, and involve an evaluation of the data sources and quality of research in respect of the chemicals in question. In 1999, the Advisory Group considered 79 substances, which are members of the categories in paragraph 1(1) of the Schedule and recommended that they were appropriate for inclusion in List I. This list was further extended to over 259 substances following consultation in 2002. It is also intended to publish this final determination and other JAGDAG information on the Environment Agency's website.

Regulation 4 - Measures to prevent the introduction into groundwater of List I substances

24. Throughout the notes on Regulations 4 and 5, which control discharges of List I and II substances to groundwater, there are several references to "prior investigation". It is a requirement of the Regulations that before SEPA grants an authorisation, it needs to be satisfied that the vulnerability of the groundwater likely to be affected by a discharge or disposal has been assessed. Prior investigation must take into account the hydrogeological conditions of the area, the possible purifying powers of the soil or sub-soil (primarily within the unsaturated zone through which indirect discharges travel), and the risk of pollution, or alteration of the quality of the groundwater, that could arise from the discharge.

25. Regulation 4 sets out rules for authorisations, which are designed to prevent direct or indirect discharges of List I substances to groundwater. Prior investigation is required, before SEPA can grant any authorisation, to establish the hydrogeological conditions in the area, the possible purifying powers of the soil and subsoil, and the risk of the discharge polluting or altering the quality of the groundwater. (Further guidance on prior investigation is given at paragraphs 34-36 below.) **Unless there are exceptional circumstances, authorisations cannot be granted for any direct discharge of a List I substance to groundwater.** Nor can an authorisation be granted for a disposal of a List I substance to land unless prior investigation has established that an indirect discharge of the substance will not occur, or that such discharge can be prevented by suitable conditions in the authorisation. The exceptional circumstances where discharge of List I substances may be authorised are set out in paragraphs 27-29 below.

26. Regulation 4 also sets out the powers available to SEPA to prevent potential discharges of List I substances to groundwater. Regulation 4(4) requires control of such discharges from road drains. This is controlled by prohibition notices under section 30G(1) of CoPA. Where necessary, such notices would be served where a discharge or a potential discharge could result in the entry of List I substances to, or pollution by List II substances of, groundwater. In other circumstances, a notice under Regulation 19 is used to prohibit an activity other than a disposal or tipping for the purposes of disposal, or allow it to continue subject to conditions, in order to prevent indirect discharges of List I substances to groundwater (or an indirect discharge leading to pollution of groundwater by List II substances).

Circumstances in which discharges of List I substances to groundwater may be authorised

27. Regulation 4(5)(a) provides that, in exceptional circumstances, SEPA may authorise a discharge of a List I substance into groundwater where the prior investigation shows that:

- the groundwater is permanently unsuitable for other uses (especially domestic or agricultural uses), and
- the presence of the List I substance does not impede the exploitation of ground resources (eg mining and quarrying) , and

- (where an authorisation is to be granted) conditions can be imposed requiring that all technical precautions are observed to prevent that substance reaching other aquatic systems or harming other ecosystems.

28. When considering if a body of groundwater is permanently unsuitable for other uses, SEPA should take into account the existing quality of groundwater, the size and accessibility of the groundwater body in respect of quality and whether it has other uses. In addition, the Water Framework Directive (2000/60/EC) has requirements to prevent and limit the input of pollutants into groundwater and to reverse significant and sustained upward trends. Where SEPA determines that a groundwater body is permanently unsuitable for other uses, this must be reported to the Scottish Ministers and may relate only to specific, localised bodies of groundwater. All authorisations granted for the discharge of List I substances to groundwater on the basis that it is permanently unsuitable must also be reported to the European Commission.

29. Regulation 4(5)(b) provides that after prior investigation SEPA may also authorise discharges of List I substances to groundwater where the discharge is due to re-injection into the same aquifer (that is, the recharge may only be into the aquifer from which it was abstracted) of:

- water which has been used for geothermal purposes;
- water pumped out from mines and quarries;
- water pumped out during civil engineering works.

Regulation 5 - Measures to limit the introduction into groundwater of List II substances to avoid pollution

30. Regulation 5 provides for the prevention of pollution of groundwater by List II substances. This guidance needs to be read in conjunction with the guidance on Regulation 7 at paragraphs 35-36 below. Procedures for the assessment of discharges containing List II substances are similar to those for List I. SEPA may only authorise direct or indirect discharges, or any disposal activity which may lead to an indirect discharge of List II substances, provided that:

- a prior investigation has been carried out (see guidance at paragraphs 30-33 below on prior investigation); AND
- in the light of that investigation, the authorisation includes conditions relating to the technical precautions needed to prevent pollution of groundwater. Conditions may relate among other things to the matters set out at Regulation 10, or may deal with the specific circumstances of a discharge or disposal, and may be triggered by the approaches taken in codes of good practice approved under Regulation 21.

31. Not all groundwater is equally vulnerable to the risk of pollution from a given discharge. The characteristics of the soil and the rocks control the ease with which a potentially polluting discharge can affect groundwater. The factors that together define the vulnerability of groundwater are the:

- presence and nature of overlying soils and drift deposits (sand, gravel, silt, clay) eg thickness, compaction, composition;
- hydrological characteristics of the strata which contain the groundwater;
- depth of the unsaturated zone.

In addition, the presence of rapid flow paths such as field drains or fissures in the rock or soil increase the risk of contaminants reaching groundwater.

32. Where SEPA considers that an activity that takes place in or on land may result in an indirect discharge of a listed substance, it may serve a notice (under Regulation 19) prohibiting the activity, or allowing it to continue subject to conditions. This provision is aimed at activities where groundwater is placed at risk of pollution as a result of an indirect discharge. It includes assessment of the risk of pollution as a result of careless operation or poor design of facilities involving the manufacture, storage or use of listed substances. SEPA will take into consideration whether the terms of any statutory code of good practice are being complied with or are likely to be complied with where one is available. However, given that codes of practice are inherently general in nature, neither the existence of a statutory code of practice nor a breach of such a code is a prerequisite to the serving of a notice. In other words, SEPA may simply consider that a notice is required to protect groundwater. Regulation 5(3)(a) provides for the case where List II substances are discharged to/from road drains. Under these circumstances, SEPA can serve a prohibition notice, under section 30G of the Control of Pollution Act 1974.

Regulation 6 - Artificial recharges for the purpose of groundwater management

33. Artificial recharge is a technique that uses an aquifer's capacity to store water that is surplus to requirement, for use when supplies are more limited. Recharge to groundwater can be done through such methods as direct discharge through a borehole, or by controlled flooding. Each such recharge must be authorised, and such artificial recharges may be authorised on a case by case basis for the purposes of groundwater management. Such an authorisation can only be granted if SEPA determines that there is no risk of pollution of the receiving groundwater. Clearly such a conclusion would be reached on the basis of a prior investigation which would provide sufficient information for SEPA to assess the potential impact of such a recharge.

Regulation 7 - Examination required in prior investigation

34. Regulation 7 sets out, in accordance with the Directive, the requirements for prior investigation. The approach to prior investigation is described below. When selecting a disposal site, the person seeking the authorisation will need to consider the type of disposal being proposed, how often disposals will need to be made, the volume and quantity of the discharge, and the soil and geology which occur at the site. SEPA has produced a self-assessment 'prior investigation flowchart' to assist applicants identify the best disposal site in advance of making an application. The local SEPA office will also be able to provide advice.

Possible outcomes of prior investigation

35. In the light of prior investigation, the following outcomes are possible:
- a. the discharge or disposal would lead to a direct or indirect discharge of List I substances and must be refused in accordance with Regulation 4;
 - b. the discharge or disposal might lead to an indirect discharge of List I substances but can be prevented by the use of technical precautions enforced by conditions in the authorisation (Regulation 4);
 - c. there are significant risks of groundwater pollution by List II substances which could not be addressed through conditions in an authorisation, such that an authorisation should be refused (Regulation 5);
 - d. the disposal or discharge of List II substances may or may not result in a risk of groundwater pollution, which can be prevented by technical precautions, and can therefore be authorised subject to conditions in the authorisation (Regulation 5);
 - e. in the case of List I substances, the groundwater is found to be permanently unsuitable for other uses and authorisation may be granted, provided that (or that precautions can be taken to ensure that) there is no adverse impact on ground resources or other aquatic systems and ecosystems (Regulation 4(5)(a)).

36. An authorisation will be required even where there is a low risk of the discharge or disposal of List I substances reaching, or List II substances polluting, groundwater, unless the discharge or disposal is known to contain very small concentrations of listed substances which will not cause any deterioration in groundwater quality. In the light of the prior investigation, determinations will reflect the merits and circumstances of individual applications and sites. **Where, following prior investigation, an authorisation cannot be granted, it will be necessary for the applicant to identify alternative and acceptable disposal sites, or identify an alternative means of disposal, or avoid the need for disposal from the activity in question.**

Regulation 8 - Surveillance of groundwater

37. Regulation 8 provides that an authorisation cannot be granted unless SEPA has checked that the groundwater will undergo 'requisite surveillance' - that is, such monitoring as is necessary in the particular circumstances to ensure that groundwater will not be contaminated. In order to meet its obligations under the Groundwater Regulations, SEPA will determine the appropriate degree and location of monitoring, including the nature of the facility, sampling frequencies etc. This will also depend on local circumstances, and SEPA's own assessment of vulnerability and the risk to local groundwater.

38. It is unlikely that individual monitoring boreholes will be required for the majority of disposal sites. However, in some circumstances it may be necessary for an applicant to provide one or more boreholes to enable SEPA to make assessments of groundwater quality. Where possible, an assessment should be carried out before requiring the provision of such

boreholes. The applicant will normally have to bear the additional cost of installing and maintaining monitoring facilities on a site-specific basis. In requiring the installation of monitoring facilities, SEPA will ensure that the costs to the applicant are in proportion to the perceived risks to groundwater from the proposed disposal.

39. Where possible, SEPA will consider the use of monitoring facilities which serve a group of discharges or disposals, in order to achieve economies of scale and reduce the costs which might be borne by individual applicants. However, it is likely that hydrogeological conditions will allow this in only a minority of cases.

40. In most cases, SEPA will undertake the sampling of boreholes for the purpose of monitoring, to ensure that consistent and quality assured procedures are adopted. Where SEPA is satisfied that there is the necessary expertise, it may be appropriate for the operator to conduct monitoring which is then subject to audit by SEPA.

Regulation 9 - Terms of authorisation of discharge of substances in List I or II, and Regulation 10 - Terms of authorisation for disposal or tipping for the purpose of disposal

41. The Regulations require authorisation of both direct and indirect discharges of List I and List II substances to groundwater. Regulations 9 and 10 set out the terms under which an authorisation is considered for the discharge of List I or II substances (Regulation 9) and for disposal or tipping disposal (Regulation 10). Each authorisation should state the:

- location,
- method of discharge,
- essential precautions which must be taken,
- the maximum quantity allowed to be discharged in a specified period of time,
- the measures necessary to monitor effluents discharged into groundwater and the quality of the groundwater itself.

42. The authorisation will set out the essential precautions that must be taken to protect groundwater. These will pay particular attention to the nature and concentration of any List I or List II substances present in the discharge or disposal, the characteristics of the receiving environment and the proximity of water catchment areas, in particular those for drinking, thermal use, food production and mineral water.

43. The authorisation will specify the maximum quantity of any List I or List II substances permissible in the effluent during one or more specified periods of time (normally on a daily or annual basis), and, if appropriate, the requirements concerning the concentration of any substance. It will also, where necessary, set out arrangements for monitoring the disposal, and whether measures for the monitoring (requisite surveillance) of groundwater (particularly its quality) are necessary.

44. Direct discharges of both List I and List II substances to groundwater are regulated under CoPA and will continue to require a discharge consent under that Act. In the case of prescribed processes, discharges and disposals affecting groundwater will be controlled by SEPA under Part I of the Environmental Protection Act. This is referred to as Integrated Pollution Control. Similar controls apply for installations regulated under the Pollution Prevention and Control (Scotland) Regulations 2000. Existing and proposed Integrated

Pollution Control authorisations, Pollution Prevention and Control permits and CoPA consents, must be consistent with the requirements of the Groundwater Regulations, and thereby the Groundwater Directive. This will require, for example, scrutiny and possible amendment of certain Integrated Pollution Control Process Guidance Notes, as well as review (within the existing provisions for review at least once in every four years for EC requirements) of existing Integrated Pollution Control authorisations, Pollution Prevention and Control permits, and consents under CoPA.

Regulation 11 - Period and conditions of authorisation

45. Under the terms of Regulation 11, SEPA will monitor compliance with the conditions of any authorisation and the effects of discharges on the groundwater. Authorisations must be reviewed at least once in every four years. An authorisation may be amended or revoked either to reflect new circumstances or where groundwater cannot be afforded the appropriate level of protection under the Regulations. This would include, for example, cases where the conditions of an authorisation are not capable of being met. Any review of conditions may relate to:

- the substances which may be discharged;
- the quantities and concentrations of such substances;
- the method of disposal;
- the frequency of disposal at the authorised disposal site or sites;
- the location of authorised disposal site or sites, and
- any other conditions required to protect the groundwater and surface water quality.

Regulation 12 - Inventory of authorisations

46. Regulation 12 gives effect to the requirement of the Groundwater Directive for an inventory to be kept of the authorisations. Authorisations granted under Regulations 18 and 19 (or as defined in Regulation 1) and in accordance with Regulations 4, 5 & 6, of:

- direct or indirect discharges of any substance in List I;
- direct discharges of any substance in List II, and
- artificial recharges for the purpose of groundwater management.

Regulation 13 - Application of measures not lead to pollution of groundwater

47. Regulation 13 requires that any measures taken pursuant to these Regulations - including Authorisations granted and notices served - must on no account lead, either directly or indirectly, to pollution of groundwater.

Regulations 14 to 17 - Amendment of other legislation

48. Regulations 14 to 17 modify provisions in existing legislation so that they are in line with requirements to prevent and control pollution of List I and II substances under the terms of these Regulations.

Amendment of the Control of Pollution Act 1974 (CoPA)

49. Regulation 14 (1) amends section 30(F) of CoPA to make it an offence to cause or permit the disposal or tipping for the purposes of disposal of List I or II substances without an authorisation, and for causing or permitting an activity in contravention of a Regulation 19 notice. Regulation 14 (2) applies the defence provisions of section 30I(1) of CoPA to these groundwater pollution offence provisions. That is, a person is not guilty of an offence if the discharge is in accordance with the conditions of a groundwater authorisation issued by or has been made in an emergency in order to avoid danger to life or health. As is the case for other discharges, if such a discharge occurs, it must be notified to SEPA as soon as reasonably practicable after the event and all steps must be taken as are reasonably practicable to minimise the extent of the discharge.

50. Regulation 14(3) extends to Regulation 18 authorisations and Regulation 19 notices the procedures under sections 42A and 42B of CoPA. These concern the exclusion from registers of information affecting national security and certain confidential information.

Extension of charging arrangements under Sections 41, 42 and 123 of the Environment Act 1995

51. Regulation 16 applies Sections 41 and 42 of the Environment Act 1995. This enables SEPA to recover its costs for Regulation 18 authorisations. The existing charging scheme has applied since 1 April 1999 and replaced the arrangements that applied in the transition period.

Explanation of effect of Section 71 of the Environmental Protection Act 1990

52. Section 71 of the Environmental Protection Act 1990, which concerns the obtaining of information, has been extended to these Regulations under the provisions of Regulation 15. Section 71 enables Scottish Ministers to require SEPA, as the waste regulatory authority, to provide information about the discharge of its functions. Similarly Scottish Ministers and SEPA, as waste Regulation authority, may serve notices on third parties to provide such information. Failure to supply the information requested is an offence under the Environmental Protection Act 1990.

Explanation of relationship of Waste Management Licensing to Groundwater Regulations

53. (See also notes on Regulation 2 at paragraph 17 above.) Regulation 2 provides that the Groundwater Regulations should not apply to any activity for which a waste management licence is required as it is not necessary for an activity to be licensed under both the Waste Management Licensing Regulations and the Groundwater Regulations. However, activities, which are exempted from the waste management licensing regime, are not automatically exempted from the requirements of other legislation including the Groundwater Regulations, and separate assessment under the Groundwater Regulations may be needed.

Regulation 18 - Authorisation of disposal or tipping of substances in List I or List II and Regulation 19 - Notice to prevent or control indirect discharges of substances in List I or List II

The relationship between Authorisations and notices

54. Regulation 18 authorisations control intentional disposals of wastes containing listed substances into or onto land, whereas Regulation 19 notices are issued to control activities that are or are likely to result in an indirect discharge of List I substances to groundwater or pollution by List II substances.

55. An application for a Regulation 18 authorisation is necessary for disposal (or tipping for the purposes of disposal) of listed substances to land. Any unauthorised disposal, or indirect discharge arising from it, is an offence.

56. SEPA may serve a notice under Regulation 19 where it considers that there is a possibility of an indirect discharge of a List I substance, or the possibility of pollution to the groundwater from an indirect discharge of a List II substance. The notice may be required because of the location of a facility (eg a poorly sited sheep dipping facility, close to a sensitive aquifer), or the activity itself (eg an underground storage tank containing listed substances) poses a unacceptable risk, or a combination of both.

57. A notice can work in one of two ways: the notice may prohibit an activity or activities where there is risk to groundwater in terms of either their operation or location, and where that risk of pollution cannot be controlled by conditions attached to the notice. Alternatively, where it is evident to SEPA that there is only a low risk of pollution, it may issue the notice as “conditional authorisation”, setting conditions in the notice for reasonable and practical steps to be taken to ensure that there is effective control on the activity. In this case, the conditions attached to such notices must be capable of being effective (at preventing the entry into groundwater of List I substances, or avoid pollution of groundwater by List II substances), complied with and properly monitored. In this respect, reference may be made to approved Codes of Practice or other relevant guidance, which assist in assessing and controlling the risks.

58. Where SEPA issue the notice as a “conditional authorisation”, it is not subject to annual charges under SEPA’s charging scheme (see Section IV). Similarly, where SEPA serve a notice on an operator prohibiting the activity, such a 'prohibition notice' is not subject to charges under SEPA's charging scheme, but may well involve costs to the operator in respect of any remedial works associated with pollution prevention.

59. In considering whether to issue a notice, SEPA will take account of any relevant statutory code of practice (Regulation 21- see paragraphs 64-66 below), as they relate to individual site circumstances, and whether or not such a code is being, or is likely to be, complied with. On this basis, therefore, compliance with an approved code should normally be of considerable assistance in determining whether a notice is to be served by SEPA. However, the fact that a code is being followed does not mean that a notice cannot be served, and would not be a defence under Regulation 14 (2). For example, a notice with conditions might be required where an activity is in a sensitive location, or where inherent risks need to be managed through conditions designed to prevent groundwater pollution. In addition, emergency procedures to deal with pollution incidents under the Control of Pollution Act 1974 remain in place.

60. SEPA has a duty to protect groundwater and will use appropriate regulatory and non-regulatory methods to do so. For example, SEPA may provide advice, as a statutory consultee, in circumstances where an activity involving hazardous substances at or above

threshold quantities requires consent under the Planning (Hazardous Substances) (Scotland) Act 1997.

Regulation 20 - Appeals

61. Regulation 20 sets out arrangements for appealing to the Scottish Ministers against a determination by SEPA in respect of an application made for authorisation of a disposal under Regulation 18, or the issuing of a notice under Regulation 19.

62. Under Regulation 20, an applicant who is aggrieved by such a decision of SEPA may appeal in writing to Scottish Ministers. Such an appeal must be made within three months of notification of the decision in the case of a Regulation 18 Authorisation, or within three weeks of service in the case of a Regulation 19 notice. These periods can be extended only by the Scottish Ministers.

63. The applicant may also make an appeal to the Scottish Ministers under Regulation 20 in the case of a deemed refusal. This would apply in the situation where SEPA had not determined an application within the requisite four-month period (starting either from the date of the application, or, where the application has to be advertised, the date on which advertising is completed). However, it should also be noted that this Regulation also enables SEPA and the applicant to agree an extension of time for determining the application, thus avoiding an appeal, which could otherwise be settled by agreement.

Regulation 21 - Codes of Practice

64. Under Regulation 21, Scottish Ministers may approve codes of practice that establish good practice and techniques to comply with the Regulations in order to prevent List I substances reaching, or List II substances from polluting, groundwater. (The sheep dipping code of practice and the mineral extraction code of practice are currently available).

65. Although contravening a code is not in itself an offence, evidence of the failure to observe a code of practice, and any risk of groundwater pollution is likely to result in SEPA serving a Regulation 19 notice to prevent or control a direct or indirect discharge of a listed substance. On the other hand, adherence to an approved code of practice does not comprise a defence against the offence of discharging to controlled waters or making a disposal to land without authorisation.

66. Once the Scottish Ministers have approved a code of practice, the Scottish Executive will notify SEPA and arrange for its publication. Thereafter, SEPA will bring it to the attention of those engaged in any relevant activity. This can be through general publicity, contact with trade associations, or by direct contact. It is recognised that there may be a period of adjustment in the months after the introduction of a new statutory code of practice whilst activities are brought into line with the code.

Regulation 22 - Particulars to be included in Registers

67. In addition to keeping an inventory of Authorisations under Regulation 12, SEPA is required, under Regulation 22, to maintain other information concerning:

- any authorisation or application for an authorisation under Regulation 18, any variation or revocation of it, including any information supplied to SEPA for the purpose of the authorisation, its variation or revocation;
- any Regulation 19 notices, prohibiting activities which might result in discharges of listed substances to groundwater, including any information supplied to SEPA for the purpose of the notice, or any variation or revocation of a notice;
- any information supplied to SEPA for the purpose of monitoring an authorisation under Regulation 18 or a notice under Regulation 19;
- any conviction for an offence under section 30F of the Control of Pollution Act 1974;
- certain findings, determinations, notifications and published summaries concerning List I or II substances, and
- any codes of practice approved under Regulation 21.

Regulation 22(2) allows SEPA to remove monitoring information held on the registers for more than four years or any information that has been superseded over the same period. Additionally, it allows SEPA to remove information about withdrawn applications for authorisations under Regulation 18.

Regulation 23 - Transitional provisions

68. The transitional arrangements in Regulation 23, for authorisation applications from 1 January 1999, ceased to operate after 1 April 1999 when the Regulations came fully into force.

Schedule of Listed Substances

69. The Schedule to Regulation 1(2) sets out the families or groups of substances belonging to List I and List II. As mentioned previously in paragraph 23, the current list is available on the Scottish Executive Water Environment Unit's website. A substance is not included in List I if it has been determined by SEPA to be inappropriate to List I on the basis of a low risk of toxicity, persistence and bioaccumulation.

70. The Scottish Ministers may review any decision of SEPA in relation to the exercise of its powers under paragraph 1(2) or 2(2) of the Schedule. They shall notify SEPA of their decision following a review and it shall be the duty of SEPA to give effect to that decision. SEPA maintains an up to date summary of the effect of its determinations under this Schedule and must make it available to the public.

SECTION III - THE APPLICATION PROCESS

Who should apply for authorisation?

71. Existing requirements under section 32 of the Control of Pollution 1974, and in other legislation controlling discharges to water in respect of discharges of toxic substances to controlled waters (including groundwater) continue to apply. It is an offence under the Act to "cause or knowingly permit" the discharge of polluting matter into controlled waters, including groundwater - unless that discharge has been authorised in advance under any of the legislation listed in paragraph 17 above. Where the discharger and the landowner are not

the same person, responsibility for discharges or disposals, and seeking authorisation for them, lies with the person responsible for the discharge.

72. It should be noted that it is the nature of the discharge or disposal, and the characteristics of its location, which are subject to prior investigation. An authorisation will set the type and number of disposals that may be made at any given site and the conditions applying to such disposals.

73. Applications for authorisations must be made in writing to SEPA, which has developed standard forms and application packs for this purpose. Details of the location and telephone/fax numbers of the SEPA offices from which application packs may be obtained are given in Section VI of this guidance. It should be remembered that authorisations, following prior investigation, are site specific. If it is intended to make a disposal, or tipping for the purposes of disposal, at a different location from that specified in an authorisation, then a fresh application or a formal variation to an existing authorisation will be necessary. If the holder subsequently cancels an existing authorisation, a fresh application will be required if disposal is to recommence. Where authorisations require additional 'treatment' to be carried out, for example, to kill the Foot and Mouth Disease virus by means of a pH change, this does not absolve the person carrying out any disposals from complying with the authorisation.

74. When an application is first made, the decision to grant or refuse an authorisation rests with SEPA. Applicants have a right of appeal against the decision, as explained in paragraphs 61-63.

75. Since any disposal of a List I or a List II substance to land will need authorisation, SEPA will seek to make the process as simple as possible. The process is outlined as follows:

Initial enquiry

75.1 The applicant should contact their local SEPA office (see Section VI) and explain the nature and location of the proposed disposal or alternatively seek initial guidance from SEPA's website (www.sepa.org.uk). SEPA may be able to give, without prejudice, an informal indication as to whether the proposed disposal and its location is likely to present an unacceptable risk to groundwater. SEPA can then provide an application and information pack, if appropriate.

Applications

75.2 The application pack provides guidance on how to complete the application form. The form itself provides essential information to SEPA for its determination and is part of a desk-based prior investigation. SEPA will assess whether the application comprises a relatively straightforward, low risk proposal, in which case a streamlined approach can be adopted for assessment, or whether it is a more complex, high-risk case requiring additional consideration. In determining which approach is appropriate, SEPA will consider the sensitivity of the site in terms of the vulnerability of groundwater and other potential adverse environmental impacts.

Assessment

75.3 SEPA has produced simplified groundwater vulnerable zone maps. These maps are part of the application pack and are also available for inspection at the SEPA offices. SEPA will assess the information submitted in applications with reference to the groundwater vulnerability maps, and any other available, relevant information about groundwater quality and sensitivity in the vicinity of the proposed disposal site.

Straightforward applications

75.4 If SEPA's initial assessment of the application indicates that the risks to groundwater pollution are low, a relatively simple authorisation may be issued limiting the content and site of the disposal to that specified in the application, and attaching appropriate conditions to the proposed disposal activity. In such cases, the prior investigation requirement is likely to have been met by the information provided by the applicant at the outset, though a site visit by SEPA staff might be necessary to confirm such information where there is any doubt.

Applications requiring additional consideration

75.5 The need for SEPA to give the application additional consideration will be identified from information provided at the initial enquiry stage, the application form or when a site visit is carried out. In some cases additional information from site investigation may be needed (including intrusive investigation). SEPA should indicate the general scope of these investigations and will provide reasonable assistance to the applicant. However, it is the responsibility of the applicant to undertake and bear the costs of such investigations. There can be no guarantee that the completion of an investigation will result in a successful application, and SEPA should point this out to applicants.

Determination of application

75.6 SEPA has up to four months to determine applications from the date of receipt of a completed application. Where an application is straightforward and there is sufficient information, SEPA will aim to determine it in a shorter period. For more complex proposals, adequate assessment may take longer than four months and any extension of the determination period must be subject to agreement with the applicant.

Advertising an application

75.7 Regulation 18(2) allows SEPA to require an application to be advertised in cases where they consider that there are special reasons for doing so. The majority of applications are unlikely to require advertisement. Such "special reasons" may include cases where:

- the application is particularly complex, for example, it covers multiple discharge/disposal points, or applies to a wide area;

- *additional information, relevant in the context of protecting the groundwater and necessary for the determination of the application, might be obtained as a consequence of advertising.*

There may also be considerations such as the nature of the substances and the ground conditions. The advertising process is therefore intended to be used sparingly and in the context of more complex applications. In accordance with Regulation 18(2), it is the responsibility of the applicant to advertise the application. In cases where SEPA issues a formal notice that advertising is required, it will provide written guidance to the applicant.

Refusal of the Application

75.8 Where, after prior investigation, it is apparent that an application poses an unacceptable risk to groundwater, and where conditions attached to an authorisation could not offer adequate protection against such risks, the application will be refused. In doing so, SEPA would need to consider whether:

- *there was an unacceptable risk of a release of List I substances to groundwater or of pollution of groundwater by List II substances;*
- *there was an unacceptable impact on vulnerable sites of high nature conservation value, or because of a risk of pollution to other controlled waters, and that, despite requests from SEPA, the applicant has not submitted information which could reasonably be expected and was necessary to determine the application,*
- *the appropriate application fee had been submitted with the application.*

Where the prior investigation indicates that authorisation is possible, it would normally be expected that a refusal would only take place when:

- *either the prior investigation was found to be inaccurate, or*
- *discussions between SEPA and the applicant had failed to resolve any problems with the application within a reasonable timescale.*

Review and modification of the authorisation

75.9 An authorisation under the Groundwater Regulations may be modified by SEPA at any time. SEPA can, by written notice, vary or revoke the authorisation. Such variation or revocation might be made where there is, for example, evidence of an unacceptable impact or threat of an impact arising from the authorised discharge or disposal.

SECTION IV - CHARGING ARRANGEMENTS

76. SEPA is empowered, under the Environment Act 1995, to recover its costs. This is in line with the polluter-pays principle endorsed by the Scottish Ministers. Regulation 16 of the Groundwater Regulations provides for SEPA to charge costs for Regulation 18 authorisations (see paragraph 51). The detailed information about these charges are set out in SEPA's Groundwater Regulations Charging Scheme, which is approved by Scottish Ministers and subject to annual reviews. The scheme allows for charges to be made for initial applications and annual subsistence.

Charges for application

77. The Scheme, as amended with effect from December 2001, consists of 3 charging bands for groundwater authorisations, with disposals on farms typically being included in the lowest band. The lowest band applies to authorisations of up to a total of 5 cubic metres of effluent per day.

78. Notices that prohibit an activity are not subject to charges. Additionally, a notice served under Regulation 19, which authorises an activity subject to conditions, is not subject to an application fee even though it is regarded as an authorisation (See paragraph 58).

79. Applications should include the appropriate application fee, but where it becomes clear that an application falls outside the scope of the Regulations, SEPA will consider refunding the fee. This should not arise where applicants have consulted SEPA beforehand (see **Section III - The application process**).

80. SEPA may ask an applicant to carry out further investigations (for example, trial pits or boreholes) in order to satisfy the prior investigation requirements. The applicant will be liable for the cost of these further investigations. Prior consultation with SEPA will assist in judging whether it is worthwhile proceeding with a more extensive investigation, or in identifying an alternative site or means of disposal. **Overall, however, there can be no guarantee that an application will be successful in advance of the outcome of a prior investigation and determination of an application.**

Annual charge

81. An annual subsistence charge is levied on all Regulation 18 authorisations, details of which are set out in SEPA's charging scheme. The charge is to allow SEPA to recover its costs in carrying out the following statutory activities:

- requisite surveillance of groundwater associated with authorised disposals;
- review of all authorisations within four years of issue;
- maintenance of records and public registers; and,
- the provision and issue of guidance on compliance with the Groundwater Regulations 1998.

In addition to these activities that all require an ongoing resource allocation, there is a statutory need to ensure that public awareness of the Regulations is maintained and that clear guidance is developed on its implementation.

82. Where monitoring is required in relation to specific discharges, the cost of such monitoring, unless specifically required to be borne by the applicant/operator, will be covered by the annual charge as set out in the appropriate national charging band.

SECTION V - THE IMPACT OF THE REGULATIONS

83. The following notes are intended to provide a guide to the main sectors and processes that will be subject to the Regulations, but are not an exhaustive list. Whether or not a process or sector falls within the scope of the Regulations will depend on the nature and circumstances of the proposed activity or disposal, but all sectors are potentially affected by the Regulations. Again, the best approach is to consult SEPA about the likely need for authorisation prior to making an application.

Sheep dipping

84. Farmers and crofters (and/or sheep dipping contractors) must dip sheep in accordance with good environmental practice, and plan in advance the means of disposal of waste sheep dip. The requirements equally apply to the disposal of liquid waste from sheep showers and jettors. All disposals to land will require a Regulation 18 authorisation to be sought. Where SEPA considers that there is a danger of pollution to groundwater from the use of sheep dip, it may serve a notice under Regulation 19. This notice will either authorise the sheep dipping activity, setting out the conditions that apply, or else prohibit it.

85. Where waste sheep dip is disposed of by spreading onto land on the farm, then SEPA's prior authorisation needs to be obtained for the disposal site. Where appropriate, SEPA will consider such applications for disposals under a simplified Authorisation procedure involving a system of self-prior investigation.

86. Waste sheep dip may only be stored temporarily until such time as an appropriate authorisation is granted. If this is necessary, such storage should be conducted in accordance with any relevant legislation or codes of practice. On no account should storage be used as a long-term solution to the proper disposal of waste dip. The storage of waste sheep dip may also be subject to the notice procedures outlined in paragraphs 56-57 above, where it is considered that there is a risk that it could cause an indirect discharge of List I or II substances to groundwater. Under no circumstances can waste sheep dip be reused to treat sheep at a later date. This is both due to animal health and welfare considerations and the need to comply with label instructions. More advice on the use (but not disposal) of sheep dip is available in the Executive's code of practice.

Use and disposal of pesticides

87. The disposal of waste pesticides, the disposal of wastewater from washing down and the cleaning of pesticide storage or application equipment also require authorisation. The storage and use of pesticides will not normally require authorisation if carried out in accordance with any necessary product approval under:

- the Control of Pesticides Regulations 1986 (as amended), the Plant Protection Products Regulations 1995 (as amended), the Plant Protection Products (Basic Conditions) Regulations 1997, and the Biocidal Products Regulations 2001;
- label instructions, and
- relevant Codes of Practice.

SEPA may serve a Regulation 19 notice where it considers that pesticide storage or its use could present a danger of discharge to groundwater (see paragraphs 56-57 above).

Horticulture

88. Where herbicides and pesticides are used for horticultural purposes, authorisation will be required for the disposal of excess run-off and wastewaters from glasshouses and associated facilities, and for land spreading. Where List I substances are involved it is most unlikely that disposal to soakaways would be authorised by SEPA due to the risk to groundwater from by-passing surface vegetation and the soil layer.

Peat Extraction

89. Peat extraction is a surface activity carried out by milling, although peat may be removed from up to several metres below the surface level. While no specific risks have been identified in relation to peat production, its removal could hasten the entry of pollutants from other activities (such as oils and fuels from machinery) into groundwater. For example, any spillage or leakage of oils or fuels from plant machinery could still percolate downwards to the groundwater table below and cause groundwater pollution. Peat removal also has the potential to impact directly on the surface water regime by altering the catchment hydrogeological response.

Other agricultural activities and disposals

90. Where livestock slurry and animal manure is applied to land for agricultural benefit, a Groundwater Authorisation would not usually be needed. Such spreading should take place in accordance with the Executive's Prevention of Environmental Pollution From Agricultural Activity (PEPFAA) code of good practice. Other materials, such as mushroom composts may also contain quantities of nutrients and may be applied to land, provided they are for agricultural benefit. Disposal of liquids or effluent would require authorisation, and such disposal to a soakaway would not normally be acceptable.

Miscellaneous disposals

91. The disposal of other materials to land, for example, paper, pulp and brewing wastes containing List I or List II substances, are dealt with under the terms of the Waste Management Licensing Regulations 1994. Such activities would need to be registered with SEPA prior to spreading taking place.

General Industrial operations

92. Industrial processes that require the disposal of List I or List II substances to land may be a risk to groundwater. In these circumstances, they will come within the scope of the Regulations. Industrial units should have discharge consents permitted under CoPA for direct disposals to controlled waters (including groundwater). Likewise, existing Integrated Pollution Control authorisations (and Pollution Prevention and Control permits and Waste Management Licences) must take into account groundwater protection – see paragraph 94 below.

93. Other industrial operations involving the storage, handling and manufacture of List I and II substances (for example, metal finishing, dry cleaning and petrol filling and the general storage of hydrocarbons in underground tanks) might pose risks to groundwater. In these

circumstances SEPA will seek to ensure best practice is adopted under the appropriate regulatory regime including Regulation 19 authorisations.

Large disposals

94. For processes that are subject to Integrated Pollution Control authorisations or Pollution Prevention and Control permits, groundwater protection must be taken into account in the determination of the authorisation. All Integrated Pollution Control authorisations are subject to review every 4 years and, where the need to protect groundwater arises, an authorisation will be reviewed under the terms of the Integrated Pollution Prevention and Control Act 1999.

Sewage treatment works

95. Spreading of sewage sludge to agricultural land from sewage treatment works is subject to control through the Sludge (Use in Agriculture) Regulations 1989, as amended, when it is spread for agricultural benefit. The spreading of untreated sludge, or sludge not treated to the standards prescribed in the amended Regulations, is contrary to the Code of Practice on Agricultural Use of Sewage Sludge (DEFRA, 1996).

Mineral workings

96. Water discharges from mines are controlled by consents from SEPA under the terms of the Control of Pollution Act 1974. Any such discharge to groundwater which contains, or may contain, listed substances will also be within the scope of the Groundwater Regulations, as will any disposal, or tipping for the purpose of disposal, to land of any matter, for example spoil, which contains, or may contain, listed substances. Similarly the process of mineral extraction itself, being an activity "in or on land", is subject to the Regulations, and SEPA has powers under Regulation 19 to prohibit, or place conditions upon mining or quarrying if it considers this could result in indirect discharges of listed substances to groundwater. This is in addition to the normal planning controls relating to mines and mineral workings, where activities should be undertaken in accordance with any relevant codes of practice or planning guidance. More specific guidance is available in the Executive's code of practice on mineral extraction.

97. For abandoned mines and quarries, SEPA has powers under CoPA to take remedial action if this is necessary to prevent groundwater pollution. The need for an authorisation under the Groundwater Regulations will depend upon the nature of the individual site, though in general an authorisation would not normally be required for long abandoned mines where activity has ceased. The Regulations and this guidance supersede the relevant guidance contained in Department of the Environment Circular 4/82.

Cemeteries

98. Only in exceptional circumstances would burials in cemeteries be expected to require an authorisation under the Regulations. They are subject to SEPA's notice powers under the Regulations but normally SEPA would, where possible, aim to raise issues concerning groundwater protection at the planning stage.

SECTION VI -LIST OF CONTACTS

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Other Relevant Publications

In addition to its regulatory functions, SEPA produces guidance and advice, and works in partnership with others to deliver environmental goals through non-statutory means. Its published guidance is available freely on its website – www.sepa.org.uk

There are a number of SEPA policy documents that relate to groundwater protection and waste management licensing. These include:

- Policy no. 19 Groundwater Protection Policy for Scotland, August 1996 - currently under review
- SEPA Guidance Note 1 - The Groundwater Regulations 1998, Disposal of Waste Agrochemicals to Land: Guidance on Compliance for Farmers, Crofters and Growers.
- SEPA Guidance Note 2 - The Groundwater Regulations 1998, Best Practice Methods for the Treatment and Disposal of Waste Sheep Dip and Pesticides for Farmers, Crofters and Growers.
- SEPA Guidance Note 3 - The Groundwater Regulations 1998, Disposal of List I and II substances to Land: General Guidance on Compliance.
- SEPA Guidance Note For Crofters - Disposal Practices for Waste Sheep Dip.

Guidance from the Scottish Executive and other government departments:

- Code of Practice on Agricultural Use of Sewage Sludge (DEFRA, 1996).
- Prevention of Environmental Pollution From Agricultural Activity (PEPFAA Code), a Code of Good Practice, The Scottish Office Agriculture, Environment and Fisheries Department SOAEFD, 1997
- PEPFAA code Do's and Don'ts Guide, SEERAD, 2002.
- Code of Practice for the Safe Use of Pesticides on Farms and Holdings, MAFF Green Code, May 1998.
- Advice Note on the Safe Use and Disposal of Sheep Dip, SOAEFD, April 1999,
- Sheep Dipping: Code of Practice for Scottish Farmers, Crofters and Contractors, March 2003
- Mineral Extraction: Code of Practice for the owners and operators of quarries and other Mineral Extraction sites, March 2003

The Scottish Executive is in the process of preparing the Code of Practice on the Storage of Hydrocarbons in Underground Storage Tanks under Regulation 21 of the Regulations.

These documents are available on the Executive's website at www.scotland.gov.uk.

Alternatively, hard copies and further information as to when these will be available, can be obtained from the Water Environment Unit (waterenvironment@scotland.gsi.gov.uk or 0131 244 0205).