

Contaminated Land Inspection Strategy

Adopted
September 2001

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1 INTRODUCTION

1.1 Background

- 1.1.1 Contaminated land represents an unsustainable legacy from the past that, as a society, we cannot afford to pass on to future generations. Contamination can cause adverse effects on human health, ecosystems, property and the water environment as well as preventing the satisfactory redevelopment of brownfield sites in towns and villages.
- 1.1.2 A new legal framework to deal with the issue of land contamination was brought into force in Scotland on 14th July 2000. The aim of the new regime is to ensure that those contaminated sites in Scotland which have a significant adverse effect on human health or the wider environment are identified and, where appropriate, remediated.
- 1.1.3 This strategy has been prepared by Scottish Borders Council to meet the requirement of the regime for local authorities to take a strategic approach towards the identification of land which meets the statutory definition of "contaminated land" within the Council area.
- 1.1.4 All local authorities in Scotland are required to adopt and publish a strategy by 14th October 2001.

1.2 Main Elements of the Regime

- 1.2.1 Existing regulatory regimes are designed to deal with the prevention of new contamination and the remediation of sites which come forward for development through the planning system. The new contaminated land regime is designed to deal with our historical legacy of contaminated sites which are not suitable for their current use.
- 1.2.2 The legal basis for the new regime is provided by Part IIA of the Environmental Protection Act 1990¹ and is accompanied by statutory guidance² and regulations³ issued by the Scottish Executive. The legislation introduces a statutory definition of "contaminated land" (see below) and gives local authorities a number of new duties and powers with respect to the identification and remediation of such land within their area.
- 1.2.3 Contaminated land is defined⁴ as:

"land which appears to the local authority to be in such a condition, by reason of substances in, on or under the land, that significant harm is being caused, or there is a significant possibility of such harm being caused, or that pollution of controlled waters is being, or is likely to be, caused."

1.2.4 This definition, elaborated upon in the statutory guidance, is narrow in that it only seeks to capture those sites which give rise to serious risk to either human health or the environment, rather than all land subject to contamination. Appendix 1 and 2 are taken from SERAD Circular 1/2000 and set out the criteria for "significant harm" and the "significant possibility of significant harm".

¹ Environmental Protection Act 1990, s78A - s78YC (inserted by s57 of the Environment Act 1995)

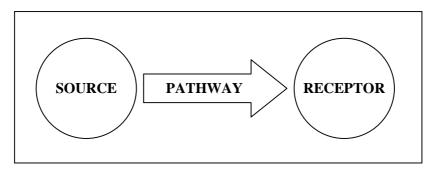
² Scottish Executive Rural Affairs Department - Circular 1/2000 Environmental Protection Act 1990: Part IIA Contaminated Land [SERAD Circular 1/2000]

³ The Contaminated Land (Scotland) Regulations 2000

⁴ Environmental Protection Act 1990, s78A(2)

1.2.5 The definition relies on the concept of pollution linkages – linkages between a contaminant and a receptor by means of a pathway (see Figure 1.1 below).

Figure 1.1: The "Source - Pathway - Receptor" Relationship



- 1.2.6 The source can be any substance which is not radioactive (the current contaminated land regime does not address issues related to radioactive contamination). The list of receptors is given in Appendix 1 and includes humans, specified designated ecological sites, property and controlled waters (coastal waters, rivers, lochs and groundwater).
- 1.2.7 "Special sites" are a sub-set of "contaminated land" sites⁵. They are designated by the local authority as such because of certain characteristics of the pollution of controlled waters, the land being in the ownership of certain specified organisations, specified contaminants being present on the site, or a specified industrial process having taken place on the land. Designation as a "special site" does not necessarily mean that the contamination on the site is more significant than on any other site identified as "contaminated land". The Scottish Environment Protection Agency (SEPA) is the lead regulator for such sites although they must be designated as such by the local authority.
- 1.2.8 The primary regulatory role under the contaminated land regime lies with local authorities, whose main responsibilities are set out in Figure 1.2 below.

Figure 1.2: The Role of the Local Authority under the Regime

The role of the local authority will be:

- ⇒ To publish a strategy for the identification of "contaminated land" by 14th October 2001;
- ⇒ To cause their area to be inspected to identify "contaminated land" (in accordance with the strategy);
- ⇒ To determine whether any particular site is "contaminated land";
- ⇒ To act as enforcing authority for all contaminated land which is not designated a "special site" (SEPA will be the enforcing authority for special sites);
- ⇒ To establish who should bear responsibility for the remediation of the land;
- ⇒ To decide what remediation is required and to ensure that such remediation takes place, either by agreement, serving a remediation notice or carrying out the work themselves;
- ⇒ Where a remediation notice is served, or the authority itself carries out the work, to determine who should bear what proportion of the liability for meeting the cost of the work; and
- ⇒ To record certain prescribed information about their regulatory actions on a public register.
- 1.2.9 This Strategy⁶ is required to set out an approach to the identification of contaminated land which targets resources at those areas where contaminated land is most likely to be found. It must also contain policies and procedures for liaison with other regulatory

⁵ "Special Sites" are sites which meet the criteria outlined in s2 & s3 of the Contaminated Land (Scotland) Regulations 2000

⁶ The requirements of this strategy are set out in SERAD Circular 1/2000 and are reproduced at Appendix 3.

- bodies and for responding to information and complaints from members of the public, businesses or voluntary organisations.
- 1.2.10 The Contaminated Land Inspection Strategy should be placed in the context of the other regulatory functions of the local authority with respect to contaminated land (e.g. property clearance, planning, building control and environmental health), as well as the role of the local authority as a landowner.
- 1.2.11 The contaminated land regime is based on retrospective liability for all historical contamination. Liability for meeting the costs of remediation falls on the "appropriate persons" who either caused or knowingly permitted the contamination to take place, or are the owners or occupiers of the land (where no-one can be found who caused or knowingly permitted the contamination).
- 1.2.12 The local authority is responsible for identifying the "appropriate persons" and determining the apportionment of liability for any remediation work required. Where no "appropriate persons" can be identified, or all are excluded from liability (a number of tests exist), the pollution linkage must be classed as an "orphan linkage". In such cases, the local authority has the power to carry out the remediation action at its own cost.
- 1.2.13 It must be recognised that, while local authorities have been given very specific powers and duties under the new regime, expectations of the public might not be met in all circumstances given the confines in which local authorities are required to operate. This relates in particular to what constitutes "contaminated land" and the extent to which local authorities are able to enforce remediation of sites when they have been identified.

1.3 Content and Structure of the Strategy

- 1.3.1 The Strategy is divided into ten chapters as follows.
- 1.3.2 Chapter 2 sets out the policy context at the national and local level as it relates to the issue of contaminated land. It then goes on to outline the process used for Strategy preparation and the results of consultation on a draft Strategy.
- 1.3.3 Chapter 3 seeks to set the context for addressing issues of land contamination in the Scottish Borders. This will be done by considering a number of issues which will include:
 - ⇒ the industrial history of the area and other potentially contaminating land uses;
 - the settlement structure and population density of the area;
 - ⇒ the geological and hydrogeological structure of the area; and
 - ⇒ natural heritage designations.

The information set out in this section (and associated Appendices) has influenced the approach to inspection that will be outlined in later chapters.

- 1.3.4 Chapter 4 sets out the aim and objectives of this Strategy and the priorities that will be applied during Strategy implementation.
- 1.3.5 Chapter 5 addresses issues of data collection and management and outlines the process for screening sites for further investigation.

- 1.3.6 Chapter 6 relates to issues of public access to information, data protection, commercial confidentiality and how the Council will deal with information, enquiries or complaints from the public. It also addresses consultation with statutory consultees and adjoining local authorities.
- 1.3.7 Chapter 7 addresses the issue of the Register that the local authority is obliged to keep of sites which have been formally identified as meeting the statutory definition of contaminated land.
- 1.3.8 Chapter 8 covers issues of site remediation and cost recovery where the Council is required to carry out work and has the power to recover costs from "appropriate persons".
- 1.3.9 Chapter 9 outlines the proposed method of Strategy implementation including a programme, procedure and indicative timetable for inspection of the area.
- 1.3.10 Chapter 10 considers the process whereby this Strategy and its implementation will be monitored and reviewed in the light of experience, best practice and a changing context.
- 1.3.11 A number of Appendices are attached to this document which contain supplementary information. They are designed to include information which, although not part of the strategy itself, is a useful support to it. Appendices are referenced in the text as appropriate.
- 1.3.12 Figure 1.3 (below) sets out the structure of the Strategy in a graphical format, showing how the individual chapters relate to each other.

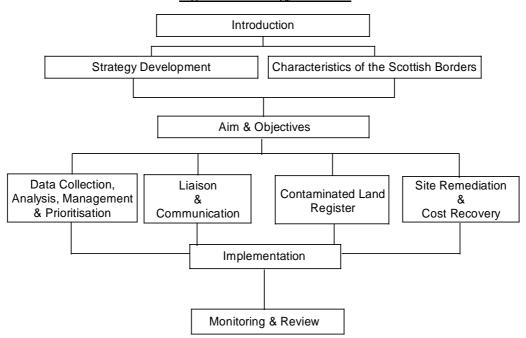


Figure 1.3: Strategy Structure

2 STRATEGY DEVELOPMENT

2.1 Background

2.1.1 The context for this Strategy is set by legislation and policy at the national and local level as well as the history and geography of the Scottish Borders itself. This chapter will outline the legislative and policy context for strategy development and the process used to prepare the strategy, while Chapter 3 will address issues relating to the historical, physical and human geography of the area and how these have influenced the chosen Strategy. Chapter 10 will address those developing policy areas which could trigger a review of this Strategy and decisions made during its implementation.

2.2 Scottish Executive Policy

- 2.2.1 Scottish Executive policy in relation to contaminated land is contained within Annex 1 to SERAD Circular 1/2000. Policy is set within the context of sustainable development and is seen as complementary to legislation which seeks to prevent the creation of new contamination. The new contaminated land regime, therefore, is designed to deal with the legacy of land which is already contaminated due, for example, to past industrial, mineral and waste disposal activity.
- 2.2.2 The Scottish Executive's objectives with respect to contaminated land are:
 - ⇒ to identify and remove unacceptable risks to human health and the environment;
 - ⇒ to seek to bring damaged land back into beneficial use; and
 - to seek to ensure that the cost burden faced by individuals, companies and society as a whole are proportionate, manageable and economically sustainable.
- 2.2.3 These three objectives underlie the "suitable for use" approach adopted by the Scottish Executive. This approach seeks to ensure that land is suitable for its current use, that it is suitable for any new use as planning permission is given, and limits remediation requirements to the work necessary to prevent unacceptable risks to human health or the environment in relation to current use.

2.3 Scottish Environment Protection Agency Policy

- 2.3.1 SEPA does not currently have a specific policy in relation to contaminated land. The implementation of this Strategy, and any subsequent review of it, will take into account any such policy if and when it is issued.
- 2.3.2 SEPA have provided local authorities with a copy of their own internal guidance² for considering issues where the "pollution of controlled waters" is arising from contaminated land (to inform local authorities of the approach taken by SEPA). While this document does not have the standing of SEPA policy, it has been issued to try to ensure consistency of approach between local authorities.

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¹ SERAD Circular 1/2000, s7 Annex 1

² Scottish Environment Protection Agency (2000) "SEPA's Approach to Considering Pollution of Controlled Waters Arising from Contaminated Land"

- 2.3.3 In consultation with local authorities, SEPA has prepared a liaison framework document³ to seek to guide the interaction between local authorities and SEPA in the implementation of the contaminated land regime. Where appropriate, this has been used to inform the policy and procedures of this Strategy. Scottish Borders Council will seek an active role in the review of this document which is scheduled for late 2001.
- 2.3.4 SEPA are required to produce a "State of Contaminated Land Report" for the Scottish Executive⁴ when requested or on a regular basis. Following discussions with local authorities, SEPA have provided written confirmation of the information they are likely to require of local authorities to enable them to fulfil this requirement. This has enabled information systems to be put in place to ensure the required information is available.

2.4 Scottish Borders Council Policy

- 2.4.1 This Strategy is set within the context of the corporate policy of Scottish Borders Council. The Council has an adopted Corporate Plan covering the period 1999 2002 and a Community Plan which sets out the strategic priorities of the Council and outlines how it intends to pursue these objectives. The theme of partnership runs through the Corporate and Community Plans, recognising that the Council needs to work with others (public sector bodies, voluntary organisations, the business community and local people) to achieve the best for the Scottish Borders.
- 2.4.2 There are four strategies which go to make up the Corporate Plan, three of which have a bearing on the issue of contaminated land and therefore this current Strategy. These are:
 - ⇒ Economic Strategy;
 - ⇒ Social & Health Strategy; and
 - ⇒ Environmental Strategy.
- 2.4.3 The aims of the three strategies are presented in the boxes below. Those highlighted by *italics* are seen as those which are important in relation to this Strategy.

The **Economic Strategy** aims to:

- ⇒ ensure that the Scottish Borders is a competitive location for industry;
- ⇒ encourage inward investment;
- *⇒ support business development and diversification;*
- ⇒ encourage the development of the service sector; and
- ⇒ promote access to training and employment opportunities for everyone.

³ Scottish Environment Protection Agency (2000) "Framework for Local Authority - SEPA Liaison under Part IIA of the Environmental Protection Act 1990 (Contaminated Land)"

⁴ Environmental Protection Act 1990, s78U

The Social & Health Strategy aims to:

- *support and sustain the quality of life of all citizens of the Scottish Borders;*
- ⇒ create opportunities for socially excluded and disadvantaged groups; and
- ⇒ ensure that we have healthy and safe communities.

The Environmental Strategy aims to:

- *⇔ create a sustainable future for the Scottish Borders;*
- \Rightarrow promote waste minimisation;
- ⇒ lead and facilitate participation in the Local Agenda 21 process;
- ⇒ ensure that sustainability is fully integrated into the Council's own activities and decision-making processes; and
- ⇒ encourage other organisations to adopt best environmental practices.
- 2.4.4 These corporate aims have influenced this Strategy, ensuring that it fits within the framework of other plans, policies and strategies being developed by the Council.
- 2.4.5 In addition to the Corporate Plan, a Finalised Structure Plan for the Scottish Borders has recently been submitted to the Scottish Ministers⁵. This is the strategic land use plan for the Scottish Borders up to 2011.
- 2.4.6 The Structure Plan development strategy supports the reuse of vacant, derelict and brownfield sites where these are acceptable in relation to other planning criteria. It also provides for a hierarchy of protection for the natural and built heritage of the Scottish Borders.
- 2.4.7 The protection of the groundwater of the Scottish Borders is a particular concern of the Structure Plan, as is the River Tweed. Both of these represent considerable resources for the Scottish Borders which require protection for future generations.
- 2.4.8 The Structure Plan recognises the interaction between the planning system and the contaminated land regime, noting that Local Plans can create opportunities for site redevelopment where contamination is a problem and where remediation would not otherwise take place. This is particularly the case where sites might not meet the statutory definition of "contaminated land".
- 2.4.9 The four existing Local Plans⁶ for the Scottish Borders are currently being reviewed and a consolidated draft plan is anticipated during 2002. The implementation of this Contaminated Land Inspection Strategy has an important interaction with the local plan review, particularly in relation to land allocations.

2.5 Strategy Preparation

2.5.1 The Strategy has been prepared to meet the requirements of Part IIA of the Environmental Protection Act 1990, the Contaminated Land (Scotland) Regulations 2000 and SERAD Circular 1/2000 and takes into account the guidance⁷ issued by the Scottish

⁵ The Structure Plan is subject to the approval of the Scottish Ministers following a period for statutory objections during June and early July 2001.

⁶ Berwickshire (1994), Ettrick & Lauderdale (1995), Roxburgh (1995) and Tweeddale (1996).

⁷ Scottish Executive (2001) "Contaminated Land Inspection Strategies: Advice for Scottish Local Authorities"

- Executive in August 2001. Appendix 2 lists the requirements for the Strategy laid out in the Circular.
- 2.5.2 This Strategy has been prepared by Economic Development & Environmental Planning, in co-operation with Lifelong Care. An inter-departmental Working Group has overseen the production of the Strategy comprising representatives from:
 - ⇒ Economic Development & Environmental Planning
 - ⇒ Lifelong Care
 - ⇒ Transport & Environmental Standards
 - ⇒ Corporate Resources Legal & Finance
- 2.5.3 This group has met approximately every two months since Part IIA came into force (July 2000) and will continue to meet to oversee the implementation of the Strategy (although on a less regular basis). This has ensured that all parts of the Council with an interest in the subject of contaminated land have been able to input to the Strategy and enabled the Strategy to fit into the other functions of the Council.

2.6 Consultation

- 2.6.1 A draft Strategy was approved as a basis for consultation by the Policy and Resources Committee of Scottish Borders Council on 19th June 2001. This was followed by a 6 week period for public consultation.
- 2.6.2 In addition to approximately 110 copies of the draft Strategy which were mailed to the organisations listed in Appendix 4, copies were made available in all static and mobile public libraries in the Scottish Borders and it was placed on the Council website.
- 2.6.3 The consultation period closed on 3rd August 2001, by which time 5 responses had been received. A further 4 responses were received shortly after the closing date⁸. An analysis of responses to the draft Strategy is available on request.
- 2.6.4 This Strategy was formally adopted by Scottish Borders Council on 5th September 2001. This has enabled Scottish Borders Council to meet the requirement of the statutory guidance⁹ to publish an adopted Strategy by 14th October 2001.
- 2.6.5 This Strategy is not seen as set in stone but must be responsive to changing circumstances and the experience gained during implementation. For this reason, mechanisms for the review of the Strategy are set out in Chapter 10 and cover routine reviews as well as those triggered by unforeseen events such as changes in legislation and guidance.

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⁸ The organisations responding to the consultation exercise are identified in Appendix 4.

⁹ SERAD Circular 1/2000, B12

3 CHARACTERISTICS OF THE SCOTTISH BORDERS

3.1 Background

- 3.1.1 A number of the characteristics of the Scottish Borders have been important in Strategy development. For the most part, these are related to either potential sources, pathways or receptors.
- 3.1.2 The chapter starts with a consideration of the location of the Scottish Borders before going on to consider issues relating to geology, history, land use, population, controlled waters, ecology, land ownership, redevelopment and currently available sources of information relating to the nature and extent of contaminated land in the area.
- 3.1.3 This chapter seeks to draw out these characteristics and identify the influence they have had on the Strategy. These characteristics and influences are summarised in Table 3.7.

3.2 Location & Physical Characteristics

3.2.1 The Scottish Borders covers an area of approximately 4,700km² in the south east of Scotland. The area lies south of Edinburgh and adjacent to the border with England, stretching from the North Sea in the east to the Tweedsmuir Hills in the West (as shown in Figure 3.1).

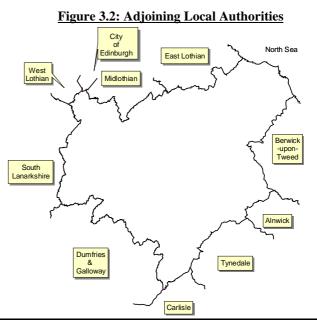
Figure 3.1: The Location of the Scottish Borders



- 3.2.2 The Scottish Borders is the seventh largest Unitary or District local authority in the UK (7th out of 434) by area, and is more than twice the size of all but the top 10.
- 3.2.3 In Scottish terms, the Scottish Borders is the sixth largest local authority (6th out of 32) behind Highland, Argyll & Bute, Dumfries & Galloway, Aberdeenshire and Perth & Kinross. A full listing of Scottish local authorities by area is provided in Appendix 5.
- 3.2.4 The Scottish Borders is bounded by 10 different local authorities in both Scotland and England, as can be seen from Figure 3.2. Table 3.1 lists the adjacent local authorities and

the length of shared boundary. Those local authorities in the top section of the table are in Scotland while those in the bottom section are in England.

3.2.5 It can be seen from Table 3.1 that the shared boundary with some local authorities is relatively small (City of Edinburgh and West Lothian for example), whereas others are more significant in



geographical extent, such as Dumfries & Galloway.

3.2.6 In addition to the adjacent local authorities, the Scottish Borders shares a 46km boundary with the Northumberland National Park. This runs from the southern section of the border with Berwick-upon-Tweed, along the length of the boundary with Alnwick and along the northern section of the boundary with Tynedale.

Tuble 5.1. Boundaries with rajoining Boun ruthornees				
	Length of Shared Boundary (km)	Percentage		
City of Edinburgh Council	1.8	0.4		
Dumfries & Galloway Council	108.2	25.9		
East Lothian Council	52.9	12.7		
Midlothian Council	63.0	15.1		
South Lanarkshire Council	55.6	13.3		
West Lothian Council	8.9	2.1		
Alnwick District Council	21.4	5.1		
Berwick-upon-Tweed District Council	48.2	11.5		
City of Carlisle Council	17.3	4.1		
Tynedale District Council	40.6	9.7		
	417.9			

Table 3.1: Boundaries with Adjoining Local Authorities

- 3.2.7 The Scottish Borders is a distinct geographical area. The horseshoe of hills (the Lammermuir, Moorfoot and Pentland Hills in the north, the Tweedsmuir Hills in the west and the Cheviot Hills in the south) form a natural boundary and the River Tweed (the whole of whose catchment is contained within these hills) gives the area a distinctive character, flowing as it does through contrasting landscapes of wild moorland, wooded valleys and fertile farmland.
- 3.2.8 The size, physical characteristics and number of adjoining local authorities have all had an impact on this Strategy. The size of the Scottish Borders will play a large part in determining the speed at which an initial inspection of the area in line with the statutory guidance can proceed. Appropriate liaison and consultation mechanisms will need to be established with adjacent local authorities to ensure that implementation recognises the possibility of boundary effects (where a source and receptor could be separated by an administrative boundary or straddle the boundary itself). The fact that the area is adjacent to the border with England, and that there are differences in secondary legislation and statutory guidance between the two countries means that these are issues that will require particular attention.

3.3 Geology

- 3.3.1 The geological structure of the Scottish Borders has the potential to form a source, pathway and receptor for contamination. As a result, the solid geology, drift geology and hydrogeology of the area are an important consideration both at the strategic scale and in relation to individual sites.
- 3.3.2 For the inspection of the area for contaminated land at the strategic level, the two principal geological characteristics of the Scottish Borders are the presence of certain rock types named in the legislation and groundwater vulnerability generally.

3.3.3 The legislation¹ highlights the importance of two rock types in particular, one of which (Devonian Sandstone) is prevalent in the Scottish Borders². Figure 3.3 Figure 3.3: Devonian Sandstone in the Scottish Border

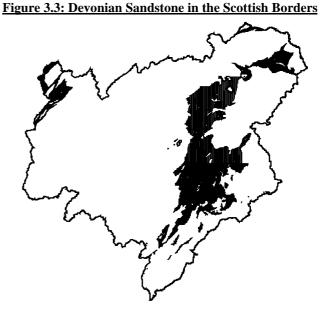
Devonian Sandstone.

3.3.4 To a large extent, the Devonian Sandstone, which extends to over 740km² in the Scottish Borders, forms the highly permeable aquifer which covers approximately 600km² (13% of the Council area).

shows the spatial distribution of

3.3.5 In addition to the highly permeable aquifer, moderately permeable aquifers exist in many valley floors where fluvio-glacial deposits have overlain the bedrock. Moderately permeable aquifers also cover a large proportion of southern and eastern Berwickshire.

These extend to approximately 1,000km², 21% of the Council area.



- 3.3.6 In the development and implementation of this Strategy, particular focus will be required on the protection of the groundwater resource, especially in areas whose geology is characterised by Devonian Sandstones.
- 3.3.7 The extremely varied nature of the geology of the Scottish Borders will necessitate a detailed examination of the underlying strata in each case where contaminated land issues may arise. Specialist advice will be sought where it is considered that the geology of the area under consideration may be a factor in assessing the risks to receptors.
- 3.3.8 The prevalence of quarrying operations throughout the Borders has left a legacy of abandoned rock, sand and gravel workings. Experience has shown that many of these sites have been used for the disposal of waste materials. Furthermore, it will be the case that many of these disposal sites will have been operated without any form of regulation or supervision and so the nature of the materials deposited will not be known. The Council will therefore identify all sites of this type and cause any necessary investigations to be made in order to establish whether or not these sites pose a risk to vulnerable receptors.
- 3.3.9 More information on the geology of the Scottish Borders is provided in Appendix 6.

3.4 History

3.4.1 The long history of human settlement in the Scottish Borders is evidenced through numerous monuments in the landscape. These sites reflect 10,000 years of human activity and many have caused considerable impact on the natural environment.

¹ The Contaminated Land (Scotland) Regulations 2000, s3(c)(ii) indicate that sites which meet the definition of contaminated land and are impacting on controlled waters within underground strata comprising Devonian Sandstones or Permo-Triassic Sandstones (through any substance noted in Schedule 1 of the Regulations) will be required to be designated as a "special site".

² The Scottish Borders does not contain any deposits of Permo-Triassic Sandstone.

Chapter 3: Characteristics of the Scottish Borders

- 3.4.2 Scottish Borders Council keeps a computerised record of these monuments which includes approximately 12,000 individual sites, over 700 of which are protected as Scheduled Ancient Monuments. The Council also holds records of 40 Conservation Areas in the Scottish Borders and over 2,600 Listed Buildings. Appendix 7 gives a brief summary of these features and maps showing their spatial distribution.
- 3.4.3 While the industrial revolution represents a significant element in the history of the Scottish Borders, it is not impossible that pre-industrial land use has caused contamination at a localised level.
- 3.4.4 The Scottish Borders has historically been principally associated with the manufacture of textiles and its associated industries and these still play a vital, if reduced, place in the economy of the area. Such activity dates back to the Industrial Revolution and once employed a considerable percentage of the population.
- 3.4.5 Employment in the textile industry fell dramatically during the 1970's and 80's from a position where it employed almost 14,000 people in 1961 to approximately 5,000 by 1991. Electronics developed into a significant industry in the Scottish Borders during the 1970's although it has experienced fluctuating fortunes over recent years.
- 3.4.6 After its introduction in the 1850's, the area had an extensive railway network comprising some 300km of track. Between 1933 and 1969, however, all the lines were closed with the exception of an 18 mile section of the East Coast Main Line. This has left a substantial legacy of former railway land, some of which has been developed, some has been used for new roads but much is now in the ownership of adjacent landowners.
- 3.4.7 The Industrial Revolution brought about a rapid growth and change in the Border towns and introduced many new technologies. This included the growing use of town gas during the 19th century as a source of artificial light, which led to the construction of numerous manufacturing plants throughout the area. Due to the properties of the gas, these were invariably located at the lowest lying places in the settlements. Due to the settlement structure of the area (see section 3.6 below), these plants were often relatively small in size, serving a modest population. In addition, a number of the larger houses in the area had their own plant for the manufacture of gas, and these date from the first half of the 19th century. The waste products of the gas manufacturing process are a potential source of contamination.
- 3.4.8 While the industrial revolution is rightly seen as a watershed in terms of the formation and concentration of potentially contaminative land uses, the history of the Scottish Borders suggests that there may have been activities which led to contamination before this time. While it is unlikely that this is going to be a significant issue in terms of meeting the statutory definition of "contaminated land", it will need to be born in mind. The two manufacturing industries for which the Scottish Borders is particularly noted (textiles and electronics) are both potentially contaminative as a result of the materials, processes and wastes they produce. These industries and the issues of former railway land and gas works sites will require to be a particular focus of the Strategy.

3.5 Land Use

3.5.1 As noted in previous sections of this chapter, the Scottish Borders is a rural, sparsely populated area. Table 3.2 gives an indication of the land cover of the area and shows that

"development" accounts for just less than 1% or 45 km², the majority of the rest of the area consisting of agriculture (80% or 3,815 km²) and forestry (16.5% or 779 km²).

Table 3.2: Land Cover in the Scottish Borders

Land Cover	Area (km²)	%
Development	45	0.9
Arable	859	18.2
Improved Grassland	1,295	27.4
Rough Grassland	1,037	21.9
Heather Moorland	522	11.0
Peatland	140	3.0
Coniferous Woodland	554	11.7
Broadleaved / Mixed Woodland	60	1.3
Recent Plantings / Fellings	165	3.5
Fresh Water	19	0.4
Miscellaneous	35	0.7
Total Land Area	4,731	

Source: Macaulay Land Use Research Institute

- 3.5.2 Agriculture and forestry, therefore, account for over 95% of the land area of the Scottish Borders. While these two land uses may not be connected with contamination in the public consciousness, a number of activities associated with these land uses could have contaminated land in the past.
- 3.5.3 There are currently six Council owned allotments throughout the Scottish Borders where plots are either let to individuals or to an Allotment Society. Given the nature of activity on such sites, particular attention will be given to former potentially contaminative uses in proximity to them.
- 3.5.4 There are currently three active landfill sites owned and operated by Scottish Borders Council for the disposal of household and commercial waste and six other licensed landfill sites run by private companies for the disposal of commercial waste. In addition to the currently licensed and numerous historical waste disposal sites³ there are a large number of farm tips which are exempt from control under the waste management licensing regulations. There are currently no landfill sites in the Scottish Borders licensed for the disposal of contaminated wastes. Any waste generated through remediation activity on contaminated sites will need to be disposed of outwith the area.
- 3.5.5 While the Scottish Borders currently has no railway services, this was not the case prior to the Beeching cuts of the 1960's. The area had some 300 km of trackbed and associated stations and infrastructure. While there is evidence of the railway heritage throughout the area, a number of sites which used to be connected with the railway have been developed in the past 20-30 years.
- 3.5.6 In order to give an indication of the historical land uses in the Scottish Borders which are potentially contaminative, the table below shows those former land uses which appear on Department of the Environment "Industry Profiles" and are thought to be potentially the most relevant⁵. Appendix 8 gives the complete list and Appendix 9 provides another list. It should be born in mind, however, that lists of potentially contaminated land can only be used as a guide as the lists were drawn up for other purposes and the characteristics of

³ These are scattered throughout the area and largely related to individual settlements, often located in close proximity to them.

⁴ Produced in the early 1990's to provide information on the processes, materials and wastes associated with individual industries that have the potential to contaminate land. The list of profiles is not comprehensive.

⁵ This list is largely derived from anecdotal evidence and a clear picture will only be obtained as the Strategy is implemented. This list should be seen as indicative only.

particular sites will vary. There is no simple relationship between a previous land use and whether it meets the statutory definition of contaminated land.

Table 3.3: Extract from the list of DoE Industry Profiles of Potentially Contaminative Uses

Animal and animal products processing works.

Engineering works: electrical and electronic equipment manufacturing works (including works manufacturing equipment containing PCBs).

Engineering works: mechanical engineering and ordnance works.

Gasworks, coke works and other coal carbonisation plants.

Pulp and paper manufacturing works.

Railway land.

Road vehicle fuelling, service and repair: garages and filling stations.

Road vehicle fuelling, service and repair: transport and haulage centres.

Sewage works and sewage farms.

Textile works and dye works.

Timber products manufacturing works.

Timber treatment works.

Waste recycling, treatment and disposal sites: landfills and other waste treatment of waste disposal sites.

- 3.5.7 This section has highlighted the fact that it is not just those areas which are within or related to settlements that have the potential to meet the definition of contaminated land.
- 3.5.8 Current and former industrial land uses have often been located in close proximity to the rivers which flow through many of the towns and villages as these supplied both the water and power required. Such sites are also likely to be located on the moderately permeable deposits of the valley floors (see section 3.3 above).
- 3.5.9 The land use of the area has influenced the Strategy by highlighting the importance of agriculture and forestry and the fact that waste generated through site remediation will need to be disposed of outwith the area. This highlights the need to encourage sustainable remediation techniques wherever possible so as to reduce transport costs and the consequent environmental impact.

3.6 Population

- 3.6.1 The Scottish Borders currently has a population of 106,900 (2000 Mid-Year Estimate) and this is currently increasing at a modest level and is projected to reach 107,800 by 2011 (1998-based projection). Historically, the population of the area has been significantly higher than it is at present. At the time of the last Census of the 19th Century (1891), for example, the population was over 25% greater than it is today.
- 3.6.2 The combination of a large area and a relatively low population means that the Scottish Borders has a population density of just 22/km². This is the sixth lowest population density of any local authority in the UK with all five above being Scottish authorities with island communities. Appendix 5 puts the population density of the Scottish Borders into context by comparing it with the rest of the UK and the other Scottish local authorities (where population density ranges from 8.1/km² in Highland to 3,482/km² in Glasgow).

3.6.3 There are no large settlements in the Scottish Borders, with the largest at the time of the 1991 Census being Hawick with a population of 15,719. Table 3.4 below categorises the population according to settlement size.

Table 3.4: Population by Settlement Size in the Scottish Borders (1991)

Settlement Size	Number of Settlements	Population	Percentage
0 - 100	N/A	31,060	30.1%
100 - 499	30	6113	5.9%
500 - 999	8	4,980	4.8%
1,000 - 9,999	15	31,673	30.7%
10,000 +	2	29,485	28.5%
		103,311	

Source: 1991 Census, GRO(S)

- 3.6.4 It can be seen that there are just two settlements with a population in excess of 10,000 and a further 15 settlements between 1,000 and 9,999. The six largest settlements (Hawick, Galashiels, Peebles, Kelso, Selkirk and Jedburgh) account for just over 50% of the population. At the other end of the scale, almost 1/3 of the population live in settlements of less that 100, small communities and isolated dwellings.
- 3.6.5 Appendix 5 provides a list of all settlements in the area with a population in excess of 100 at the time of the 1991 Census and a map showing the location and spatial extent of these settlements.
- 3.6.6 The physical environment and the river system in particular have heavily influenced the settlement pattern.
- 3.6.7 There is considerable evidence from historical sources that the current distribution of population does not reflect the distribution over the past two hundred years or so. Particularly significant changes have taken place since the Agricultural and Industrial Revolutions and many settlements have seen both rapid increases and decreases in size over this period.
- 3.6.8 As has been demonstrated above, the Scottish Borders is a large, sparsely populated area with a relatively small number of major settlements and a dispersed population. These characteristics have influenced the Strategy by highlighting the fact that a concentration on the largest settlements alone will not adequately address the significant proportion of the population who live outwith these areas. While it might be appropriate to focus initial inspection on the largest settlements, this should not be to the exclusion of the smaller and more isolated communities. This is particularly important where these areas used to be more populous in the past or where historical land use suggests that there is a higher likelihood of contamination.

3.7 Water

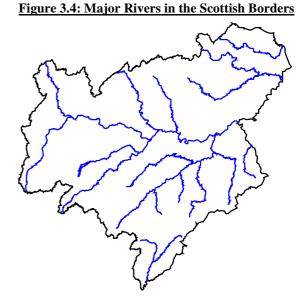
- 3.7.1 Controlled waters comprise surface waters, groundwater and territorial coastal waters. The Scottish Borders has a considerable and valuable resource in each of these areas.
- 3.7.2 Figure 3.4 shows the major rivers in the Scottish Borders. The principal river is the Tweed, the majority of whose catchment is within the area. The Tweed flows in an easterly direction from its source in the Tweedsmuir hills to the coast at Berwick-upon-Tweed, south of the border in England. In addition to the Tweed and its tributaries, the Liddel Water flows in a southerly direction through Newcastleton in the very south of the Scottish Borders and a number of rivers flow directly into the sea (including the Eye

Water which meets the sea at Eyemouth). In total, the Scottish Borders contains

approximately 6,800km of surface water (rivers and streams).

3.7.3 Of the 3,000km of rivers which are classified by SEPA for water quality purposes, 92% are categorised as either "excellent" or "good". Of the remainder, approximately 7% are categorised as "fair" or "poor" and less than 1% are classified as "seriously polluted".

3.7.4 Although routine monitoring is carried out by SEPA, it is unlikely that this will identify cases where water quality is compromised due to contaminated land. However, where such problems are identified, SEPA will bring these to the attention of the Council.



- 3.7.5 The Scottish Borders has approximately 35km of coastline, running from Cockburnspath to Lamberton.
- 3.7.6 East of Scotland Water provide the public water supply in the Scottish Borders. Approximately $\frac{2}{3}$ of the public water supply is made up from surface water while the other $\frac{1}{3}$ is extracted from groundwater boreholes (7) and springs (3).
- 3.7.7 Issues of groundwater protection and the importance of the highly permeable Devonian Sandstones were considered in section 3.3 above.
- 3.7.8 The Scottish Borders has a large number of households with private water supplies, with approximately 7% of households not supplied by East of Scotland Water. For the most part, these are in rural areas not supplied by mains water. Scottish Borders Council currently holds records of all properties with private water supplies and conducts periodic monitoring of water quality in these locations to ensure it is fit for human consumption. Records are currently held in paper files at the appropriate Area Office⁶.
- 3.7.9 Table 3.5 below shows the number of properties with private water supplies by former District. It can be seen that Tweeddale contains the largest concentration and a significant proportion of the total for the Borders, while Roxburgh contains the largest number.

Table 3.5: Private Water Supplies in the Scottish Borders by Former District

	Properties with Private Water Supplies	Households	%	Percentage of Private Water Supplies
Berwickshire	530	8,425	6.3%	16.8%
Ettrick & Lauderdale	328	15,525	2.1%	10.4%
Roxburgh	1,412	15,225	9.3%	44.8%
Tweeddale	885	6,925	12.8%	28.1%
	3,155	46,100	6.8%	100.0%

Source: Scottish Borders Council

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⁶ Peebles, Galashiels, Hawick and Duns.

- 3.7.10 In addition to private water supplies, various locations are subject to the commercial extraction of water and the extraction of water for agricultural use.
- 3.7.11 The controlled waters in the Scottish Borders, both surface water and groundwater are considered to be a resource of national importance. This Strategy will be required to ensure that this resource is given due weight in the inspection and decision-making process for the determination of "Contaminated Land". In addition, the high number of households reliant on private water supplies will need to be taken into account.

3.8 Ecology

- 3.8.1 The Scottish Borders contains a number of sites recognised both nationally and internationally for their ecological value. These sites have been designated under a number of pieces of legislation to ensure that their ecological value is protected or taken into account in development decisions.
- 3.8.2 The statutory guidance specifies a number of sites which are capable of being receptors under the legislation⁷. Those sites which are protected under this legislation include:
 - ⇒ Sites of Special Scientific Interest (SSSI's);
 - ⇒ National Nature Reserves (NNR's);
 - ⇒ Special Areas of Conservation (SAC's) and Special Protection Areas (SPA's); and
 - ⇒ Candidate Special Areas of Conservation (cSAC's) and Potential Special Protection Areas (pSPA's).
- 3.8.3 Table 3.6 below gives a general indication of the number and spatial extent of the designated areas in the Scottish Borders which fall into one of the categories above. Due to the tiering of designations, the list below is not able to be summed to obtain a total area covered by an ecological receptor. Since, however, SSSI's are the basic building block of ecological designations, these give a good indication of the area covered by these receptors. More detailed information is provided in Appendix 10.

Table 3.6: Part IIA Ecological Receptors in the Scottish Borders

Receptor	No.	Size (ha)	Range (ha)
Sites of Special Scientific Interest (SSSI's)		28,747	1 - 8,848
National Nature Reserves (NNR's)		105	9 - 77
Special Protection Areas (SPA's)	4	600	50 - 251
RAMSAR Sites	3	349	50 - 248
Candidate Special Areas of Conservation (cSAC's) ⁸		10,648	1 - 8,832
Potential Special Protection Areas (pSPA's)	1	3,511	3,511

Source: Derived from Information provided by Scottish Natural Heritage

3.8.4 In addition to the site categories listed above, a number of other designations are noted in the statutory guidance for which there are currently no sites in the Scottish Borders.

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⁷ Appendix 1 contains "Table A" from the statutory guidance which outlines the categories of site which are classified as being Part IIA receptors.

⁸ Scottish Natural Heritage are currently consulting on the inclusion of the River Tweed as a cSAC. At approximately 2,700ha, this would take the area covered by cSAC status to over 13,000ha.

- 3.8.5 The Finalised Structure Plan (2001) for the Scottish Borders recognises the fact that much of the biodiversity value of the area is outwith sites designated either nationally or internationally. The contaminated land regime, however, only recognises international and national sites as capable of being receptors. All sites therefore which fall outwith this classification will receive no protection for their biodiversity value under Part IIA, even if they have a recognised value in biodiversity terms.
- 3.8.6 Scottish Borders Council currently holds datasets which identify the location of all Part IIA ecological receptors. These are updated on an annual basis to ensure that up-to-date information is held. Changes to the boundaries of existing sites or the designation of new sites could potentially be required to trigger a review of decisions arrived at during the implementation of the Strategy. This issue will be addressed in more detail in Chapter 10.
- 3.8.7 Due to the number and importance of national and international sites in the Scottish Borders, liaison with Scottish Natural Heritage will be important to ensure that adequate protection is afforded these sites in line with the statutory regime. A focus on settlements would largely result in ecological receptors being neglected in any inspection. In order to guard against this, the Strategy will need to ensure that ecological receptors are not marginalised and that their sensitivity is given due weight in inspection prioritisation.

3.9 Land Ownership

- 3.9.1 Little is currently known about land ownership at the strategic scale in the Scottish Borders. It is known, however, that there are approximately 2,200 farms in the area (covering 3,815 km², 80% of the land area), 79% of which are owner occupied (57% by area). In addition, the Forestry Commission owns some 272 km², most of which is planted forestry and there are a number of large estates which have significant land holdings in the Scottish Borders.
- 3.9.2 Scottish Borders Council currently owns a significant amount of land and buildings including houses, schools, industrial estates, offices, landfill sites, roads and public parks. Scottish Borders Council is currently seeking to transfer its existing housing stock to a newly formed Housing Association during 2001/2002. This has necessitated the preparation of an environmental risk assessment, the results of which will feed into the inspection process.
- 3.9.3 The Council is currently transferring its records of land ownership onto a central GIS database which will enable an accurate and up-to-date assessment of the Council property and land portfolio. Due to the format in which records are currently kept, no accurate assessment of total land ownership is currently available.
- 3.9.4 The Council will need to ensure that the consideration of issues relating to contamination and its implementation of the contaminated land regime are not influenced by its own current and former ownership and use of land. Procedures outlining how this can be achieved will be outlined in Chapter 6.
- 3.9.5 In recognition of the discretion that Scottish Borders Council has relating to the recovery of costs ¹⁰, one important part of the Strategy will be a policy statement relating to this issue. This will help to ensure that there is transparency, fairness and consistency in the general approach that Scottish Borders Council makes to cost recovery decisions.

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⁹ Scottish Borders Housing Association

¹⁰ By virtue of s78H, 78N and 78P of the Environmental Protection Act 1990.

3.10 Redevelopment

- 3.10.1 Prior to the advent of town and country planning legislation, controls on development were limited and the main sources of information will be historical maps and historical accounts.
- 3.10.2 Since 1947, planning applications have been required for most types of development and redevelopment. The format in which this information is held varies across the area but it is not currently amenable to analysis within a GIS. Scottish Borders Council currently decides approximately 1,500 planning applications annually and, since 1996, these sites have been digitised as applications are registered.
- 3.10.3 Scottish Borders Council does not currently keep records of the redevelopment of brownfield sites as part of the standard registration procedure and, due to the largely rural nature of the area, the amount of such development is limited. It is estimated that approximately 5% of new housing is located on previously developed sites. Where the redevelopment of brownfield sites does occur it is mainly for industrial and retail use in the larger towns.
- 3.10.4 Information on past redevelopment is available but is not in an accessible format. As a result, the planning history of individual sites will only be able to be examined where there is a real chance that the site may meet the statutory definition of contaminated land. The Strategy will need to take this data limitation into account and set out the mechanism by which future redevelopment takes into account the potential for contamination.

3.11 Information

- 3.11.1 Issues of the contamination of land have not previously been addressed at a strategic level in the Scottish Borders. One significant consequence of this is that there is currently a poor information base which makes it very difficult to assess the nature and extent of the issue for the area.
- 3.11.2 The Scottish Vacant and Derelict Land Survey¹¹ has been quoted as a source of information on contaminated sites in Scotland. Whilst it is recognised that the survey has value in identifying such sites, the relationship of this with contaminated sites is complex¹². In the Scottish Borders, it is not considered that significant value can be gained from this data source. As a data source which is available, however, full use will be made of it in the identification of potentially contaminated sites.
- 3.11.3 A number of site investigations have been carried out where land has been brought forward for development through the planning process. Because of the relatively small number of instances where reports have been submitted, the Development Control section of Economic Development & Environmental Planning does not currently deal with issues of contamination on a regular basis and there is no consistent policy framework or procedures in place to address the issue. The publication by the Scottish Executive of a revised Planning Advice Note on contaminated land¹³ will help to raise the profile of the issue and the Strategy will need to address issues where there is a crossover between the planning system and the contaminated land regime.

¹¹ An analysis of the 2001 survey is provided in Appendix 11.

¹² In addition to the fact that by its very nature sites are not occupied (which reduces the likelihood), the survey does not consider land outside settlements with a population over 2,000. There are just 10 settlements with a population in excess of 2,000 in the Scottish Borders.

¹³ Scottish Executive (2000) "Planning Advice Note 33: Development of Contaminated Land" Edinburgh

Chapter 3: Characteristics of the Scottish Borders

3.11.4 The poor information base is something that will require to be addressed at an early stage of the implementation of this Strategy. Currently available information will need to be collated and transferred into a consistent and workable format, while considerable effort will be required to obtain information where none currently exists.

3.12 Summary

3.12.1 As has been shown, a number of the characteristics of the Scottish Borders have had an influence on the formulation of this Contaminated Land Inspection Strategy. Table 3.7 summarises these characteristics and influences.

Table 3.7: Characteristics of the Scottish Borders and their Influence on the Strategy

Table 3.7. Characteristics of the Section Borders and their influence on the Strategy			
	CHARACTERISTICS	INFLUENCE ON STRATEGY	
Location	South-east Scotland, adjacent to the border with England. Ten adjoining local authorities (6 x Scottish, 4 x English) and a stretch of the North Sea Coast. Bordering the Northumberland National Park and the majority of the area forms the catchment of the River Tweed.	Importance of appropriate liaison and communication mechanisms with statutory consultees and adjoining local authorities. The possibility of cross-border pollution linkages, especially with England.	
Physical Extent	Large area of approximately 4,700km ² with a perimeter of 450km (just over 30km representing the North Sea coast). Sixth largest local authority in Scotland (by area) and the seventh largest in the UK.	The task of inspecting the area is going to be a lengthy process and a GIS based approach is going to be the most efficient method.	
Geology	Much of the area is underlain by a weakly permeable aquifer with the river valleys and much of Berwickshire underlain by a moderately permeable aquifer. A highly permeable aquifer consisting mainly of Devonian Sandstone extends to approx. 600km². Hard rock and sand & gravel quarries are found throughout the area.	Significant areas of moderately and highly permeable aquifer which require identification and protection. The prevalence of quarrying has led to numerous opportunities for infilling with unknown material.	
History	The settlement structure of the Scottish Borders led to numerous small gas works and private manufacturing facilities, as well as many former waste disposal sites. Textiles was a major employer in the area which went into decline in the 1980's. The manufacture of printed circuit boards expanded at this time.	Textiles (and associated industries) and electronics, along with gas production and waste disposal stand out as potentially providing the greatest number of potentially contaminated sites.	
Land Use	Primarily agriculture and forestry (80% and 16% respectively) with less than 1% covered by "development". Fresh water covers almost 0.5%. Nine currently operating landfill sites, none of which are licensed for industrial waste. Numerous sites used for the disposal of waste prior to any form of regulation or control, including sacrificial agricultural land.	In the majority of cases, the Strategy will need to be reactive with respect to agriculture and forestry. Contaminated material will need to be disposed of outwith the Scottish Borders with resulting high transport costs. Sustainable remediation techniques will be advocated.	
Population	Population of 106,900 in 2000. Population density of 22/km², the lowest in mainland Scotland. Two settlements with a population over 10,000, the largest being less than 16,000. 55 settlements with a population over 100, 30% live outwith such settlements.	The protection of human health will not be achieved by focusing on the largest settlements and potentially contaminative uses are likely to be dispersed rather than concentrated at the regional scale.	
Water	Significant surface and groundwater resources which are thought to be of a relatively high quality. High level of private water supplies in areas remote from the public water main. Two thirds of the public water supply comes from surface waters, the remaining third from springs and groundwater boreholes.	The potential for the pollution of controlled waters will need to be a clear focus for inspection (particularly the River Tweed and its tributaries which are a source for the public water supply and also an ecological receptor), as will the protection of private water supplies.	
Ecology	There are almost 100 Sites of Special Scientific Interest covering approximately 290km² in the Scottish Borders. There are also three National Nature Reserves as well as a number of sites designated under European legislation, all protected as Part IIA receptors.	The large area covered by nationally and internationally important sites must not be marginalised. The sphere of influence of European sites will need to be addressed within GIS.	
Land Ownership	There are a number of large estates and approximately 2,200 farms (79% owner occupied). Scottish Borders Council currently owns a significant estate comprising homes, schools, offices, industrial estates, landfill sites, roads and public parks. Information on Council land holdings is not readily available. Higher rate of owner occupied housing than Scottish average. Employment base characterised by a large number of small businesses.	Relatively limited penetration of national and international companies means that cost recovery could be disproportionately problematic (with the resulting implications for Council finances). Work required to enable Council liability to be assessed.	
Redevelopment	Approximately 1,500 planning applications decided annually, more than 1/3 of which are 'householder' applications. Very low level of development on brownfield sites (although data not collected). Where it does take place it tends to be for industrial or retail use.	Experience of the issues raised is not widespread within Development Control so procedures will need to be put in place which inform Officers of potential issues.	
Information	Poor information base to date in relation to potentially contaminative land used, although much information on receptors already exists in digital format. SVDLS is a potentially useful source but with significant limitations.	Significant work required to improve the information base before full site prioritisation. Financial implications for the purchase of data.	

4 AIM & OBJECTIVES

4.1 Background

- 4.1.1 This chapter sets out the aim of Scottish Borders Council with respect to contaminated land in general and this Strategy in particular. It also sets the objectives required to meet this aim.
- 4.1.2 These aims and objectives have been set taking into account the policy of the Scottish Executive and their aims for the contaminated land regime, the corporate policy context of Scottish Borders Council and the characteristics of the area outlined in the previous chapter.

4.2 Aim

4.2.1 The aim of Scottish Borders Council with respect to contaminated land in general and the implementation of the contaminated land regime in particular is set out in the Box below:

Scottish Borders Council aims to ensure that the population and environment of the Scottish Borders is protected from significant harm arising from land which is not suitable for its current use due to the presence of contamination. The Council will take a strategic approach which is efficient in its use of scarce resources and which seeks to identify as a matter of priority those sites which are causing (or have the potential to cause) the most significant harm.

4.3 Objectives

- 4.3.1 In order to address the aim outlined above, a number of objectives have been set. These objectives unpack some of the themes encompassed within the aim and provide the mechanisms by which the aim will be achieved.
- 4.3.2 The 15 objectives are presented in Table 4.1 below.
- 4.3.3 While these are the objectives of Scottish Borders Council with respect to contaminated land, not all of them can be addressed through the mechanism of this Strategy. Those objectives which require other mechanisms for their implementation are highlighted.
- 4.3.4 The principal alternative implementation mechanism is the planning system, in terms of both development plans and development control. Where appropriate, further policy and guidance will be prepared through the Local Plan review which commenced in April 2001.

Table 4.1: Strategy Objectives

1	To take all reasonable steps to ensure that no land is contaminated in the future due to accidents or unregulated actions and that where these do occur, appropriate regulatory action is carried out by the appropriate agency;
2	To ensure that the human population of the Scottish Borders, particularly the most vulnerable members of society, are protected from significant harm arising from the state of land;
3	To protect the international and nationally recognised environmental assets of the area from significant harm for the benefit of current and future generations;
4	To protect controlled waters in accordance with their value both locally and nationally in economic, social and environmental terms;
5	To ensure that risks to property arising from contaminated land are given due weight in the inspection process;
6	To ensure that the economic development of the Scottish Borders is not hindered by contaminated land;
7	To ensure that the release of information balances the rights of local people to have knowledge about their local environment and the need to avoid unnecessary blight caused by either the release of information in an inappropriate context or information which forms part of on-going investigations;
8	To ensure that, within the confines of the legislation, the polluter pays for the remediation of sites;
9	To ensure transparency regarding issues relating to land where the Council might be an "appropriate person" for land meeting the statutory definition of contaminated land;
10	To encourage the voluntary remediation of contaminated sites;
11	To encourage the use of environmentally sustainable remediation techniques;
12	To encourage remediation through the planning system where this is appropriate for a particular site;
13	To ensure that all land is suitable for its new use as planning permission is granted for that new use;
14	To ensure that Local Plan land allocations are made having regard to the state of the land in question and making known information which may limit development without remediation taking place; and
15	To ensure that information is collected and stored in such a way as to enable the efficient provision of information to SEPA to enable the preparation of a State of Contaminated Land Report for Scotland.

4.4 Implementation of the Aim and Objectives

4.4.1 The following chapters will outline the mechanisms that will be used to address the aim and objectives above. Table 4.2 shows in tabular form how each of the objectives will be addressed in the implementation of the Strategy. In those cases where implementation will be through other mechanisms, this has been noted, along with the action required.

Table 4.2: Implementation of Strategy Objectives

_	140	le 4.2: Implementation of Strategy Objectives
	Implementation through CLIS	Comment
1	×	Scottish Borders Council seeks to ensure that no new sites are created which would fall within the statutory definition of contaminated land. These are issues which are not covered by the contaminated land regime itself but by other regulatory mechanisms. Scottish Borders Council has a regulatory role under Town and Country Planning legislation, while the Scottish Environment Protection Agency has powers under other pollution control legislation. Scottish Borders Council and SEPA will seek to work in partnership where issues are raised in these areas to ensure that inappropriate environmental practices are not allowed to compromise the sustainable development of the Scottish Borders and that planning permission is only given when the site is suitable for the proposed use.
2	V	Scottish Borders Council recognises that human health can be compromised by the presence of contaminated land. The highest priority will be given to sites which are giving rise to concerns over human health.
3	V	Scottish Borders Council recognises the value of the nationally and internationally recognised environmental assets of the area. They are valued for their own sake, for the quality of life they provide to residents and the tourist revenue they bring. The protection of these assets is given a high priority by Scottish Borders Council. The strategy will be required to ensure that appropriate liaison mechanisms are established, with Scottish Natural Heritage in particular, to highlight and assess the significance of any cases where the receptor could be one of these sites.
4	~	Scottish Borders Council recognises the value of the asset provided by the controlled waters in the area. Both surface and groundwater are considered of national importance, with the River Tweed accorded international protection. Both surface and groundwater are also important locally as a source of drinking water, for industrial use, for recreational use and provide an important contribution to the Borders through the income generated by salmon fishing.
5	V	In the majority of cases, it can be foreseen that risk to buildings and other property will be a pathway to risk to people. Where this is not the case, the site will be treated as a relatively low priority, except where the structure is protected by other legislation such as Scheduled Ancient Monuments or Listed Buildings.
6	×	Scottish Borders Council will work with Scottish Enterprise Borders to seek the remediation of contaminated sites which hinder the economic development of the area. It will take into account the statutory guidance on cost recovery in each case where an SME is a Class B "appropriate person".
7	~	Scottish Borders Council recognises the complex situation regarding the availability of information arising from the inspection of land under the contaminated land regime. It will comply with all legal requirements for the confidentiality and disclosure of information.
8	V	Scottish Borders Council will seek the full recovery of costs in cases where there is a Class A "appropriate person". Regard will be had to the statutory guidance where no Class A "appropriate person" can be found.

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9	V	Scottish Borders Council recognises the need for transparency in relation to land where it might be an "appropriate person". Mechanisms will be put in place to ensure that the public can have confidence in the impartiality of the Council in relation to such sites.
10	•	In all cases, with the exception of sites where urgent action is required, Scottish Borders Council will encourage the voluntary remediation of contaminated land rather than resort to regulatory action. Scottish Borders Council recognises that there is potentially much to be gained by all parties if remediation is carried out on a voluntary basis rather than through the enforcement mechanisms of the contaminated land regime (examples include exemption from landfill tax and increased flexibility). Any such remediation must be to at least the standard that would be required if the enforcement mechanisms of the regime were used.
11	~	Scottish Borders Council will encourage the use of environmentally sustainable remediation techniques which avoid the need to transport and dispose of large quantities of contaminated material in landfill sites. Sustainable techniques are currently being developed to decontaminate various categories of sites and it will be anticipated that the Best Practical Environmental Option will be used in each case, recognising the limitations presented by particular sites.
12	×	The granting of planning permission can release site value for remediation where this would otherwise not be possible. Where this is appropriate in planning terms for a particular site, such an approach will be encouraged.
13	×	Conditions will be attached to planning permissions on sites where remediation is required to ensure the site is suitable for its proposed use. A remediation statement will be sought which details the remediation actions undertaken to ensure compliance with conditions.
14	×	Scottish Borders Council recognises that the allocation of sites in a Local Plan without due consideration of issues of contamination can lead to problems as the Plan is implemented. Where appropriate, efforts will be made at the earliest opportunity to highlight issues of contamination that need to be addressed in the satisfactory development of a site.
15	V	Appropriate data management systems will be put in place to ensure that information can be provided to SEPA for the State of Contaminated Land Reports in an efficient way, minimising the need for additional work each time information is requested.

5 DATA COLLECTION, ANALYSIS, MANAGEMENT & PRIORITISATION

5.1 Background

- 5.1.1 As noted in Chapter 3, Scottish Borders Council, prior to the implementation of the contaminated land regime, had not considered the issue of contaminated land at a strategic level. It had merely been reactive on a site specific basis where either "harm" was reported or where planning applications were submitted on sites known or suspected to be contaminated.
- 5.1.2 Scottish Borders Council, unlike some local authorities, did not carry out any significant volume of work in preparation for the, now abandoned, s143 registers¹. As a result, much preparatory work is required in order to provide a baseline of historical land uses which were potentially contaminative in nature due to their raw materials, processes or wastes.
- 5.1.3 In order to move towards a strategic consideration of the issue of contaminated land in the Scottish Borders a number of distinct phases of work will be required.
- 5.1.4 This chapter will address the issues of data collection and analysis. It will highlight the format of data collection and analysis, areas where data already exists in the required format, areas where data already exists but where the format of the data represents a barrier to its usefulness and areas where further data will be required. It will then go on to address issues of data management and site prioritisation.

5.2 Nature of Data Collection

- 5.2.1 Scottish Borders Council will need to use two fundamental types of information in its implementation of the contaminated land regime:
 - ⇒ Spatial information (largely map-based); and
 - ⇒ Documentary and anecdotal information (not readily available in spatial format).
- 5.2.2 It will be important that data collection progresses on both fronts in a parallel and mutually supporting way. While it is the intention of Scottish Borders Council to use a Geographical Information System (GIS) as the primary method of data storage and analysis, the limitations of this methodology can be made up for in the use of non-spatial sources. Such sources can be transferred into GIS format where appropriate.

5.3 Format of Data Collection

- 5.3.1 Scottish Borders Council currently run a corporate GIS which is used by a number of services for diverse purposes. ArcView GIS software is currently used, running on selected desktop PC's at Council HQ in Newtown St Boswells. As yet, GIS capability is not available at Area Offices, although a project is on-going to resolve this issue².
- 5.3.2 Geographical Information Systems allow for the storage, manipulation, analysis and presentation of large quantities of spatial information. It is considered, therefore, that the

¹ Environmental Protection Act 1990, s143 - This section represented the Government's initial thoughts in relation to the establishment of a contaminated land regime in the UK but the section was never implemented, being replaced by s78A - s78YC.

² Subject to the adoption and implementation of the draft GIS Strategy.

- use of GIS in the identification of contaminated land represents an efficient use of resources for Scottish Borders Council.
- 5.3.3 In order for Scottish Borders Council to adopt this GIS-based approach, and in addition to data already held (see Table 5.1) or obtainable (see Table 5.2) in GIS format, there will be a requirement to transfer a limited amount of data currently held in paper files and registers into GIS datasets. This can be seen as part of the on-going work of Scottish Borders Council to transfer the storage and manipulation of records into electronic format. The types of information that will require conversion are outlined in section 5.5 below.
- 5.3.4 While this form of data analysis is quite data hungry, it will simplify the analysis and prioritisation of sites for more detailed investigation. This is particularly important in an area the size of the Scottish Borders where the number of potentially contaminated sites is unknown but could be quite large, as outlined in Chapter 3. In such cases, the screening of sites for detailed analysis is vital and is an approach advocated in the guidance.

5.4 Existing Information

- 5.4.1 Scottish Borders Council already hold much information in GIS format which will assist the identification of contaminated land.
- 5.4.2 Table 5.1 below lists those data sources, currently held in GIS, which it is anticipated will be used in the identification of contaminated land, divided into information relating to sources, pathways and receptors (although some data can be used for multiple purposes).

Table 5.1: Digital Data held by SBC for the Identification and Assessment of Contaminated Land

Type	Description	Source	
Source	Former Railway Lines	SBC	
	Scottish Vacant & Derelict Land Survey	SBC	
	Local Plan Policy & Settlement Boundaries	SBC	
	Current OS Mapping (various scales)	Ordnance Survey	
	Historical OS Mapping (Pre-WW2)**	Landmark PLC	
	Historical Land Use Data ³ (Approx. 45% coverage) **	Landmark PLC	
Pathway	Solid Geology (1:250,000) **	British Geological Survey	
	Devonian Sandstone (1:50,000) **	British Geological Survey	
Receptor	Property Database	SBC	
	Public Water Extraction	East of Scotland Water	
	Primary & Secondary Schools	SBC	
	Allotments**	SBC	
	Rights of Way	SBC	
	Listed Buildings	SBC	
	Scheduled Ancient Monuments	SBC	
	Sites of Special Scientific Interest (SSSI)	Scottish Natural Heritage	
	National Nature Reserves (NNR)	Scottish Natural Heritage	
	Special Protection Areas (SPA)	Scottish Natural Heritage	
	RAMSAR Sites	Scottish Natural Heritage	
	Candidate Special Areas of Conservation (cSAC)	Scottish Natural Heritage	
	Potential Special Protection Areas (pSPA)	Scottish Natural Heritage	
Other	Planning Applications (1996 ❖) ⁴	SBC	

³ This dataset requires extensive reformatting. It will need to be themed by "previous use" rather than by "OS epoch" as at present. This issue will be addressed in Table 5.3 below.

⁴ Planning Applications prior to 1996 are recorded on map sheets at Area Offices.

- 5.4.3 Detailed metadata⁵ is held about each of these datasets and, where appropriate, data is updated on a regular basis.
- 5.4.4 Most of this data is held by Scottish Borders Council to carry out its existing functions, primarily within the Economic Development & Environmental Planning. Other datasets (**) have been purchased or created in preparation for the implementation of this Strategy.
- 5.4.5 The main types of spatial data which are required but not yet held by Scottish Borders Council in digital format relate to geology and controlled waters (surface water and groundwater). These deficiencies will be addressed in the following section.

5.5 Information Requirements

- 5.5.1 The previous section highlighted a number of areas where the information currently held is insufficient to enable a thorough survey of the Scottish Borders for the purposes of identifying potentially contaminated sites. In addition to the datasets listed above, there are a number of information sources which are required but which are not yet available to the Council or require conversion to GIS format from paper records already held by the Council.
- 5.5.2 Table 5.2 below lists those data sources required which the Council will investigate further to determine their availability, utility and associated costs (where appropriate).

Type	Description	Source
Source	Former Gas Works	British Gas (Lattice Properties)
	Historical OS Mapping (Post WW2)	Ordnance Survey / Landmark Ltd
	OS Mapping of border with Carlisle	Ordnance Survey
Pathway	Drift Geology (1:50.000)	British Geological Survey
	Solid Geology (1:50,000)	British Geological Survey
Receptor	Groundwater Monitoring Locations	Scottish Environment Protection Agency
	Surface Water Monitoring Locations	Scottish Environment Protection Agency
	Surface Waters	Institute of Hydrology
	Groundwater Vulnerability	British Geological Survey
	Water Quality	Scottish Environment Protection Agency
	Commercial Water Extraction	To be identified

Table 5.2: Digital Data Required by Scottish Borders Council

- 5.5.3 It is hoped that the datasets listed in Table 5.2 above can be obtained by 31st March 2002. Consideration will also be given to the use of digital aerial photography when available.
- 5.5.4 In addition to information required from external sources, a number of paper and electronic databases and registers which are already held by Scottish Borders Council will need to be converted to GIS format, as noted in para 5.3.3 above. Table 5.3 lists these data sources, the task required to enable them to be used within ArcView and the anticipated completion date for the project.
- 5.5.5 With the exception of Council land ownership and the sources of private water supplies, all of this information should be available in GIS format prior to the first full review of the Strategy. This will provide the necessary baseline information for the full site prioritisation which will subsequently take place.

⁵ Information relating to the source, accuracy and updating of datasets.

Table 5.3: Conversion of SBC Information to GIS format

Toward						
Information	Current Format	Task	Target Completion Date			
Historical Land Use Data (1)	21 ArcView shapefiles themed by OS epoch	Reformat to be themed by previous use so as to enable analysis by historical land use.	December 2001			
Historical Land Use Data (2)	Digital raster images geo-rectified to OS National Grid. Area not covered by Landmark (55%)	Digitise points, lines and polygons of potentially contaminative uses shown on digital historical OS mapping. Sheets to be prioritised to ensure early coverage of settlements with a population of over 100.	July 2002			
Properties with Private Water Supplies	Records currently held in a variety of formats ranging from paper files to electronic databases.	Match addresses of properties with a private water supply to the Council's "Unique Property Reference Number" (UPRN). This will allow routine monitoring to be managed through the UNIFORM system.	July 2002			
Sources of Private Water Supplies	Many sources are currently unknown or vaguely described.	Seek to identify sources of private water supplies as monitoring takes place, using GPS to provide an OS Grid reference which can be plotted on GIS. Establish the link between this dataset and the dataset of properties using private supplies.	On-going			
Petroleum Storage Installations	Existing sites held as computer records, while information on historical sites is held in paper archives.	Establish a 12-figure grid reference or site boundary for all existing and former sites used for the storage and distribution of petroleum products.	July 2002			
Public Open Space	Location plans showing site boundary marked on OS base.	Convert into polygons manually. Use of data supplied for facilities planning model. <i>Use in Local Plan Review</i> .	July 2002			
Former Landfill Sites	8-figure grid references for sites in operation between the late 1970's and mid- 1990's.	Plot points and seek to define site boundaries through personal knowledge, recording dates of operation where known.	May 2001			
Scottish Borders Council land holdings	Approximately 20% marked up on OS base mapping. The remaining 80% is	Scan OS sheets and extract polygons. Task carried out by commercial companies relatively quickly.	31 st March 2003			
	held in title deeds.	Trawl through title deeds to extract site boundary information. This task is anticipated to take a considerable length of time.	31 st March 2006			

5.6 Limitations of Geographical Data

- 5.6.1 The data sources outlined in sections 5.4 and 5.5 above are largely map-based, as GIS can only handle spatial information. A number of additional data sources will need to be used to supplement those listed above.
- 5.6.2 There are many reasons why information relating to potentially contaminative site uses might never have been put on a map and these include:
 - ⇒ Businesses not being named;
 - ⇒ No physical manifestation of the activity;
 - Reasons of national security (during the second World War for example);
 - ⇒ Activities commencing and ceasing between two OS Epochs; and
 - ⇒ Accidents and illegal activity.
- 5.6.3 Documentary and anecdotal information sources will be used and approached in two ways thematic investigation and spatial searches (both being guided by the site prioritisation methodology outlined in section 5.7 below). This information will be particularly important in identifying sources of contamination. An indication is given in Table 5.4 below of some of the sources that are likely to be used. This list is illustrative rather than comprehensive.

Table 5.4: Documentary and Anecdotal Information Sources

Planning History	Information from Statutory Consultees
Local Historical Studies	Information from the Public
Trade Directories	Records of Previous Site Investigations
Remediation Records	Press Reports

5.7 Preliminary Screening & Site Prioritisation

- 5.7.1 The analysis outlined above may identify a large number of potentially contaminated sites. It can be anticipated, however, that the vast majority of such sites will not meet the statutory definition of contaminated land. In order to ensure that those sites which are of the greatest concern are identified and investigated further, a method of prioritisation will be required.
- 5.7.2 It is the intention of Scottish Borders Council to use a Preliminary Screening Model to cover the period between the publication of this Strategy and the completion of the data collection phase. This will ensure that urgent sites are addressed as Scottish Borders Council becomes aware of them rather than waiting for the completion of the first phase of the survey work towards the end of 2003.
- 5.7.3 At the time of the first periodic review of the Strategy, consideration will be given to the type of site prioritisation methodology appropriate to the task. At this stage, the Council will have a better understanding of the scale and complexity of the task and therefore the most appropriate method of site prioritisation. This will enable the Council to direct the appropriate level of resources to the task of detailed site investigation.

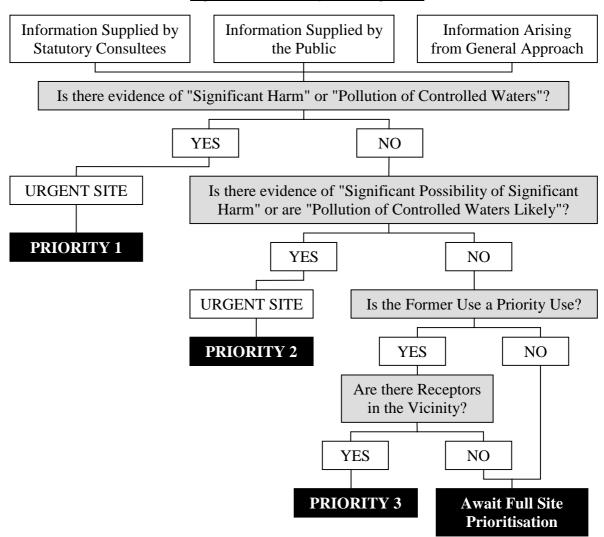
5.7.4 Figure 5.1 below seeks to show the general method that will be used to deal with sites as they are identified. As noted above, "Preliminary Screening" will be used as an interim measure before full "Site Prioritisation" can be undertaken. When this transition is made, instead of sites returning to the "potentially contaminated" category after investigation, sites will be classified as "not identified" but may be subject to review.

Sites Identified as Potentially Contaminated Preliminary Screening / (Site Prioritisation) Review **Phase 1 Site Investigation Phase 2 Site Investigation** Not **Identified** Identification as "Contaminated Land" **Regulatory Action** Route only available following full site prioritisation Insufficient evidence to Not a priority (see Fig 5.2), determine whether the site await full site prioritisation meets the statutory definition of "contaminated land" Sufficient evidence to Evidence suggests that site determine that site meets does not meet statutory statutory definition of definition of "contaminated "contaminated land"

Figure 5.1: General Site Assessment Procedure

- 5.7.5 **Preliminary Screening** will be used to identify those sites which require further investigation or action prior to the general site prioritisation towards the end of 2003.
- 5.7.6 Figure 5.2 below gives a diagrammatic representation of the preliminary screening model to be adopted by Scottish Borders Council. This fits within the shaded box in Fig 5.1.
- 5.7.7 This model will be used to assess the requirement for either urgent action (Priority 1 & 2) or early progression to a Phase 1 site investigation prior to full site prioritisation. All sites identified as potentially contaminated will be assessed using this framework as they are identified.

Figure 5.2: Preliminary Screening Model



- 5.7.8 The Preliminary Screening Model relies on four key inputs:
 - ⇒ Existing information which indicates that there is evidence of "Significant Harm" or "Pollution of Controlled Waters";
 - ⇒ *Existing* information which indicates that there is evidence of the "Significant Possibility of Significant Harm" or that "Pollution of Controlled Waters is likely to take place";
 - ⇒ Previous land use; and
 - ⇒ Proximity to receptors.
- 5.7.9 "Priority Uses" (see Table 5.5) have been identified on the basis of their known potential to cause significant contamination and their likelihood of being present in the Scottish Borders. There is no implication here that either all such sites meet or are likely to meet the definition of contaminated land, or that other uses are unlikely to meet the definition. These land uses have been selected to keep the task manageable while also seeking to direct attention to those sites where contaminated land is most likely to be found.

Table 5.5: Priority Uses

Gasworks	
Landfill	

- 5.7.10 During the data collection phase, particular emphasis will be placed on locating sites used for these purposes in the past.
- 5.7.11 Proximity to receptors⁶ will be determined by the results of GIS analysis using the datasets outlined earlier in this chapter.
- 5.7.12 Due to the fact that this is a tool for screening out sites for urgent or priority attention as work progresses on the full survey of the Scottish Borders, it is anticipated that relatively few sites will be identified which meet the criteria for priority status.
- 5.7.13 Where sites are accorded 'Priority 1' or 'Priority 2' status, urgent action will be taken by Scottish Borders Council to determine whether the site meets the statutory definition of "contaminated land". Where a site is accorded 'Priority 3' status, a Phase 1 Site Investigation will be commenced when there are no sites in a higher priority group. Such investigations will be conducted in parallel with the general approach. Work will progress to a Phase 2 Site Investigation where it is considered that additional work is required to determine whether the site meets the criteria for designation as contaminated land.
- 5.7.14 **Phase 1 Investigations** will comprise an analysis of all map-based and documentary evidence as well as a review of any existing site investigation reports.
- 5.7.15 **Phase 2 Investigations** will build upon the above and will, where appropriate include intrusive soil sampling and surface/groundwater testing.
- 5.7.16 All investigations will be carried out in accordance with established good practice, a number of sources of which are outlined in Appendix 16. Where consultants are required to carry out such investigations, they will be expected to demonstrate their competence and adherence to good practice.
- 5.7.17 **Identification as "Contaminated Land"** can take place at any time where the Council considers it has sufficient evidence to suggest that the site meets the statutory definition of contaminated land.
- 5.7.18 **Regulatory Action** will be taken, where appropriate, to secure the remediation of sites.

5.8 Output

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- 5.8.1 The anticipated output from this procedure will be that all the sites identified as potentially contaminated prior to October 2003 will pass through the preliminary screening mechanism by that date.
- 5.8.2 It is anticipated that the vast majority of sites will not be accorded priority status and will return to the pool of sites identified but not prioritised. The prioritisation of these sites will await full site prioritisation following the first periodic review of the Strategy.
- 5.8.3 It is not currently known whether any sites will be classified as Priority 1 or Priority 2 sites. Where sites are identified as such, Scottish Borders Council will carry out its statutory responsibilities under the contaminated land regime to ensure that such sites are remediated on an appropriate timescale given the risk they present.

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⁶ Early discussions will take place with SEPA and, where appropriate, other statutory consultees to determine appropriate thresholds.

6 LIAISON & COMMUNICATION

6.1 Background

- 6.1.1 Scottish Borders Council recognises that, in carrying out its duties under Part IIA, it must interact with a number of organisations, businesses and individuals. It acknowledges that the issue of contaminated land is potentially sensitive and one which can give rise to public concern.
- 6.1.2 This chapter will outline the way the Council will liase and communicate with statutory and no-statutory consultees and the wider public. It will start with a consideration of liaison with SEPA, other statutory consultees, adjoining local authorities and other Council functions which relate to contaminated land. It will then go on to address communication with site owners / occupiers and adjacent landowners and the wider public. The chapter will conclude by outlining the procedures to be adopted in relation to information supplied by the public and how the Council will deal with complaints in relation to either the implementation of this Strategy or particular areas of land.
- 6.1.3 The following chapter will address the issue of the Contaminated Land Register which, while relevant to this chapter, is dealt with as a separate issue.

6.2 SEPA

- 6.2.1 The interaction between local authorities and SEPA under Part IIA is one key element for the efficient and effective operation of the contaminated land regime.
- 6.2.2 SEPA and local authorities recognised this fact at an early stage and were involved during 1999 and early 2000 in discussions and consultations aimed at the production of a framework to guide liaison. SEPA published the results of this as a working document¹ in July 2000. There was no suggestion that either side would adopt this document as formal policy or be bound by it, but that it should be used where appropriate.
- 6.2.3 Scottish Borders Council will, where appropriate, be guided by the liaison framework in its communications with SEPA². Where the liaison framework fails to address an issue in an adequate manner, Scottish Borders Council will act as deemed appropriate under the legislation.
- 6.2.4 Where cross-boundary issues in matters which relate to the agencies are involved to the south, SEPA will be kept informed, as will the appropriate regional office of the Environment Agency. In such cases, it is expected that a round table discussion will be convened between the two local authorities, SEPA and the Environment Agency to establish the most appropriate way forward in terms of regulatory responsibility.
- 6.2.5 Local authorities and SEPA (under the auspices of a CoSLA working group) developed standard forms for the transfer of information between local authorities and SEPA and these will be used in the appropriate cases³. These forms are subject to amendment resulting from experience gained during Strategy implementation.

¹ SEPA (2000) "Framework for Local Authority - SEPA Liaison under Part IIA of the Environmental Protection Act 1990 (Contaminated Land)" SEPA Perth

² See para 2.3.3

³ Copies of the relevant forms are attached at Appendix 12.

- 6.2.6 Under the legislation, SEPA is charged with the preparation and publication of a "State of Contaminated Land Report" for Scotland⁴. Much of the information which will be required for such a report will have its origin in local authorities as the primary regulator. SEPA have agreed to the principle of keeping information requirements to a minimum and extracting as much data as possible from information local authorities are required to submit to SEPA through the normal operation of the contaminated land regime.
- 6.2.7 Scottish Borders Council will seek to facilitate the production of this report by SEPA and provide all relevant information as required by the legislation. Appendix 13 gives an indication of the information that SEPA are likely to request from local authorities, although final details have yet to be finalised.
- 6.2.8 No date has yet been set for the publication of the first "State of Contaminated Land Report" for Scotland but it could be anticipated that this will follow on from the publication of adopted Contaminated Land Inspection Strategies by local authorities in October 2001.

6.3 Statutory Consultees

6.3.1 Scottish Borders Council is required to consult with SEPA and other appropriate public authorities both in Strategy preparation⁵ and implementation⁶. Table 6.1 below shows how Scottish Borders Council has interpreted this provision.

SEPA (& Environment Agency)	Borders Health Board	
Scottish Enterprise Borders	Neighbouring LAs	
Scottish Natural Heritage	Food Standards Agency	
Historic Scotland	East of Scotland Water	
Scottish Executive		

Table 6.1: Statutory Consultees for Strategy Preparation

- 6.3.2 Other organisations will be contacted on a site-specific basis where it is considered that they have a valuable input to the process of site identification and remediation.
- 6.3.3 Contact addresses for the relevant organisations listed above are given in Appendix 14.

6.4 Adjoining Local Authorities

6.4.1 As noted in para 3.2.4 above, Scottish Borders Council is bordered by ten local authorities, four of them in England. The Council will seek to maintain and enhance cooperation, primarily through the South East Pollution Control Working Group and Northumbria Pollution Control Group. Appropriate mechanisms will be investigated with respect to Carlisle, Dumfries and Galloway and South Lanarkshire who are not members of either group.

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⁴ Environmental Protection Act 1990, S78U

⁵ SERAD Circular 1/2000, B11

⁶ SERAD Circular 1/2000 (B24) requires the Council to consult SNH prior to intrusive investigations within SSSI's and Scottish Borders Council will also consult SEPA with respect to issues of controlled waters and Historic Scotland where Scheduled Ancient Monuments could be an issue.

- 6.4.2 Scottish Borders Council will consult the relevant local authority in relation to all sites thought to have the possibility for cross-boundary effects and those identified for inspection within 1km of the administrative boundary. This will seek to ensure that cross-boundary pollutant linkages are identified.
- 6.4.3 Contact addresses for all local authorities are given in Appendix 14 while Figure 3.2 shows their spatial relationship to the Scottish Borders.

6.5 Internal Arrangements

- 6.5.1 One important interface of the contaminated land regime is with the Development Control (planning applications) and Building Control (building warrants) functions of Economic Development & Environmental Planning.
- 6.5.2 In order to ensure that "land is made suitable for any new use as...permission is given for that new use", an ArcView shapefile will be provided which identifies locations which have been identified as potentially contaminated. This will enable the issue of previous uses of sites and potential contamination issues to be addressed at an early stage in the consideration of planning applications so that appropriate additional information can be sought from the developer. Additional information and advice will be provided to Development Control and Building Control Officers as appropriate on particular sites.
- 6.5.3 This shapefile will not be publicly available as it will represent partial information relating to on-going investigation work being carried out under the contaminated land regime.
- 6.5.4 The Council's land and property portfolio is managed by the Estate Management Section of Transport and Environmental Standards. Where the Council is the owner, occupier or otherwise appropriate person on a particular site, the Director of Transport and Environmental Standards will be informed.
- 6.5.5 In the implementation of the regime, Scottish Borders Council will ensure that the same standards and, where appropriate, procedures apply whoever happens to be the owner, occupier or appropriate person for a site.
- 6.5.6 Any complaints regarding the impartiality of Scottish Borders Council will be dealt with by referring the case to the Monitoring Officer of the Council to conduct an investigation.

6.6 Site Owners / Occupiers

- 6.6.1 Scottish Borders Council will not, as a matter of routine, inform owners and occupiers when their land has been identified as potentially contaminated⁸. It will inform owners and occupiers, however, where a site has been identified as a priority or where a Phase 2 site investigation is to be undertaken.
- 6.6.2 Permission for entry to a site and Phase 2 site investigations will be sought in all non-urgent cases, although statutory powers of entry will be used in exceptional cases.

⁷ SERAD Circular 1/2000, Annex 1, para 10(b)

⁸ Owners and occupiers will be informed, however, where it is considered that an identifiable risk exists.

Chapter 6: Liaison & Communication

- 6.6.3 Where the risk presented by a site extends beyond the site boundary, appropriate information will be supplied to those potentially impacted with advice on any precautions needed to minimise the risk.
- 6.6.4 Site owners and occupiers will be notified as soon as possible if it is considered that the site may need to be designated as contaminated land. This is consistent with the Council objective to encourage the voluntary remediation of sites.

6.7 Adjacent Landowners

- 6.7.1 In cases where there has been, or there is the potential for the migration of contaminants onto land owned by a separate person, dialogue will take place in the same format as for the owner of the site containing the source of contamination.
- 6.7.2 In all other cases, owners and occupiers of adjacent land will be informed when identification notices are places on the Contaminated Land Register (see Chapter 7). Where appropriate, consultation will take place as the regulatory procedure progresses.

6.8 Public Access to Information

- 6.8.1 As noted previously, Scottish Borders Council aims to ensure that in the implementation of its duties under the contaminated land regime, the release of information is balanced by the need to avoid unnecessary blight.
- 6.8.2 Scottish Borders Council will meet the requirements of all existing and future legislation which provides for access to environmental information or information held by public authorities generally.
- 6.8.3 Information which is already in the public domain will be made available upon request and a charge will be made in appropriate cases. However, information generated by Scottish Borders Council under the contaminated land regime, with the exception of information required to be placed on the Contaminated Land Register and those cases outlined above, will not be publicly available. Such information will be considered to be part of on-going survey work and may, in the future, form evidence in legal proceedings.
- 6.8.4 No information which is commercially confidential or would prejudice national security will be released without the express consent of either the owner of the information or the appropriate Government department.
- 6.8.5 Property searches are a standardised procedure carried out by solicitors on behalf of clients when undertaking property transactions. At the present time, no issues relating to contamination are currently addressed in property searches undertaken by Scottish Borders Council. There may be a need to readdress this issue as implementation of the contaminated land regime progresses and consideration, in particular, will be given to the potential for the use of the "Contaminated Land Register" for this purpose.

6.9 Information Supplied by the Public

- 6.9.1 Scottish Borders Council recognises that a top-down approach to data collection has its limitations and could potentially miss important and useful information for the identification of potentially contaminated land.
- 6.9.2 In order to tap into this invaluable local resource, the Council will actively encourage the public, relevant organisations and business to provide information which could be useful to the Council in carrying out its duties under the contaminated land regime.
- 6.9.3 All information will be treated with respect and passed through the Preliminary Screening Model (see Fig 5.2) to determine relative priority. The source of the information will be notified of action taken within 21 working days of it being received by the Council.

6.10 Complaints

- 6.10.1 There are two types of complaint which may be required to be addressed under the contaminated land regime. These relate to either complaints regarding the implementation of this strategy (process complaints) and complaints emanating from concerns over areas of land.
- 6.10.2 Complaints relating to the implementation of this Strategy will be dealt with under the formal "Comments and Complaints" procedure run by the Council, details of which are available on request.
- 6.10.3 Complaints relating to the state of land in any particular location will be dealt with under procedures already operating with respect to other environmental health issues.
- 6.10.4 In cases where it is unclear whether information supplied is a complaint, clarification will be sought. In general, however, it will be assumed that where the source of the information has no direct connection with the site in question or is the current owner of the site, information supplied will be treated as such rather than as a complaint.
- 6.10.5 In all cases of both the supply of information and complaints, information will be sought in writing with the full name and address of the source.
- 6.10.6 All questions, information or complaints with respect to contaminated land in the Scottish Borders should be addressed to:

Lifelong Care (Environmental Health Services) Scottish Borders Council			
Scott House			
Sprouston Road	Sprouston Road		
Newtown St Boswells			
Melrose			
TD6 0QD			
Tel: (01835) 824000			
	T		
Office Hours:	Monday to Thursday = 8:45am - 5pm		
	Friday = 8:45am - 3:45pm		

7 CONTAMINATED LAND REGISTER

7.1 Background

- 7.1.1 Scottish Borders Council is required to hold a register of regulatory action carried out under the contaminated land regime.
- 7.1.2 This chapter will outline the purpose of the register as well as the information to be included on it and excluded from it. The chapter will also include arrangements for managing and updating the register as well as arrangements for public access to it.

7.2 Requirement

- 7.2.1 Scottish Borders Council is required to hold a register¹ under s78R of the EPA 1990. The register is required to hold information relating to a prescribed list of notices, declarations, statements and convictions, as outlined in Schedule 4 of the Regulations².
- 7.2.2 The duty to record such information is subject to s78S and s78T of the EPA 1990 which outlines circumstances in which information is to be excluded from entry on the register due to considerations of national security or confidentiality.

7.3 Purpose

- 7.3.1 The purpose of the register is to provide "a full and permanent record, open for public inspection, of regulatory action taken by the enforcing authority (*Scottish Borders Council, SEPA or a neighbouring local authority*) in respect of the remediation of contaminated land"³.
- 7.3.2 It is essential to recognise that the register is not a list of all potentially contaminated sites in the Scottish Borders⁴. In addition, the information contained on the register is not a list of all sites that meet the statutory definition of contaminated land in the Scottish Borders. The register will develop over time as sites are identified through the implementation of this Strategy and remediation work is undertaken. There are currently no sites identified on the Contaminated Land Register held by Scottish Borders Council (as at 1st September 2001).

7.4 Information Included on the Register

7.4.1 As noted above, Schedule 4 of the Regulations⁵ specifies the information which is required to be held on the Contaminated Land Register.

⁵ The Contaminated Land (Scotland) Regulations 2000

¹ No formal name is given to the register either in the primary or secondary legislation or the statutory guidance. Scottish Borders Council will use the name "Contaminated Land Register" for the register held under s78R of the Environmental Protection Act 1990.

² The Contaminated Land (Scotland) Regulations 2000

³ SERAD Circular 1/2000, Annex 4, s70

⁴ The requirement for such registers (EPA 1990 s143) was never brought into force and proposals were abandoned by Central Government in 1993. The s78R register is very different both in purpose and nature.

7.4.2 Table 7.1 below lists the documents and related information required to be placed on the register. Schedule 4 of the Regulations contains more detail on the particular characteristics of the information required to be held under each of these headings.

Table 7.1: Types of Information to be contained on the Contaminated Land Register

Type of Information	Para ⁶	
Identification Notices	1	
Remediation Notices	2	
Appeals against Remediation Notices	3 & 4	
Remediation Declarations	5 & 6	
Remediation Statements	7 & 8	
Designation of Special Sites	9	
Notification of Claimed Remediation	10	
Convictions for Offences under s78M EPA 1990		
Guidance issued under s78V(1) EPA 1990	12	
Information relating to sites where the authority is precluded from serving a remediation notice by virtue of s78YB(1) and s78YB(3)	13 & 14	
Information relating to sites where the authority is precluded from specifying a remediation action in a remediation notice by virtue of s78YB(4)		

- 7.4.3 Scottish Borders Council will place copies of relevant documents on the register unless this is either impractical or has been excluded. In such cases, the requirements set down in relation to this information will be followed.
- 7.4.4 In most cases, sites will be identified by an OS site plan at an appropriate scale and a 12 figure grid reference for the centre of the site.
- 7.4.5 Before entering information on the register, Scottish Borders Council will consider whether the information should be excluded from the register. This issue is considered in section 7.5 below.
- 7.4.6 No information will be placed on the register which is not a statutory requirement. The only exception to this may be information which aids the interpretation of or navigation around the register and documents contained within it.

7.5 Information Excluded from the Register

- 7.5.1 Information is required to be excluded from the Contaminated Land Register where it would either compromise national security (\$78S) or be commercially confidential (\$78T).
- 7.5.2 Information which would compromise **national security** will not be included on the Contaminated Land Register.
- 7.5.3 Where Scottish Borders Council considers that information it would otherwise place on the register might compromise national security, application will be made to the Scottish Ministers for a determination as to the suitability of inclusion of this information on the register⁷.
- 7.5.4 Scottish Ministers have the power⁸ to issue directions specifying types of information which must be excluded from the register or referred to them for determination. To date,

⁸ Environmental Protection Act 1990, s78S(2)

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⁶ Paragraph numbers relate to Schedule 4 of the Regulations

⁷ In such cases, Scottish Borders Council may not be able to meet the timescales outlined in para 7.6.3 below.

- no such directions have been issued. Until such time as directions under this section are issued, Scottish Borders Council will apply para 7.5.3 above.
- 7.5.5 In addition to national security, information which is **commercially confidential** must also be excluded from the register, except with the relevant person's permission or the authorisation of the Scottish Ministers.
- 7.5.6 Information relating to ownership and occupation, or information likely to impact on the sale or sale price of land is specifically excluded from this exclusion⁹.
- 7.5.7 Where Scottish Borders Council considers that any information it would normally place on the register may be information classed as commercially confidential, written notice will be given to the person, business or organisation concerned. A period of 21 days will be given for representations to be made outlining the reasons for objection to the information being included on the register.
- 7.5.8 If, on receipt of representations, Scottish Borders Council considers that the information is not commercially confidential, the relevant person will be notified of this and appeal may be made to the Scottish Ministers within 21 days. Scottish Borders Council will not place the information on the register until the expiry of the 21 days. If the 21 days expire without an appeal being lodged (or where an appeal is lodged and dismissed by the Scottish Ministers), the information will be placed on the register.
- 7.5.9 Where information has been excluded for reasons of commercial confidentiality, a notice will be placed on the register to this effect.
- 7.5.10 Where information has been excluded for reasons of commercial confidentiality, this exclusion will generally lapse after four years ¹⁰. Scottish Borders Council will provide 21 days notice of the expiry of this period to the individual, business or organisation concerned for any representations to be made to the effect that the information is still commercially confidential. The same procedure will apply (as the first time the admissibility of the information was considered) if the claim is made that the information is still commercially confidential.

7.6 Updating the Register

- 7.6.1 As noted above, the Contaminated Land Register is a document that will develop over time. In order to ensure that the Register remains up-to-date and useful as a record of regulatory action, procedures need to be set in place to guarantee that information is added as it is produced or received by the local authority.
- 7.6.2 Where issues of commercial confidentiality or national security are raised, Scottish Borders Council may make an interim entry on the register. This will highlight the fact that information exists in respect to a particular site even though the legal admissibility of the information being placed on the register has yet to be determined. Such interim entries will be removed when a full entry is made.
- 7.6.3 Scottish Borders Council will ensure that any information required to be held on the Register will be placed on it within 10 working days. In respect of information being generated by Scottish Borders Council, this will be from the time the information was

⁹ Environmental Protection Act 1990, s78T(11)

¹⁰ Environmental Protection Act 1990, s78T(8)

generated. Where entries are received from either SEPA or an adjoining authority, this will be from the time the information is received by Scottish Borders Council. This timescale is subject to the exceptions noted above.

7.7 Copying Entries between Enforcing Authorities

- Scottish Borders Council will be the enforcing authority for the majority of sites identified within its area. The exceptions to this are "Special Sites" where SEPA is the enforcing authority and sites which fall within s78X(2) of the EPA 1990 as representing a cross-boundary pollution linkage where a neighbouring local authority may be the enforcing authority¹¹.
- 7.7.2 Where entries on the Contaminated Land Register are required to be copied to either SEPA or an adjoining local authority, this will be done prior to the information being placed on the Scottish Borders Council register¹². Entries will be copied, as appropriate, to the addresses specified in Appendix 14.
- SEPA have stated their intention¹³ to reciprocate this arrangement by copying 7.7.3 information required to be held on the Scottish Borders Council Register within 10 days of the date on which the information was either generated by SEPA or received by SEPA. It is anticipated that adjoining local authorities will follow a similar protocol to that described above.

7.8 Public Access to the Register

7.8.1 The Scottish Borders Council Contaminated Land Register is held at the address below and is available for consultation during normal office hours.

> **Economic Development & Environmental Planning Scottish Borders Council Council Headquarters Newtown St Boswells** Melrose TD6 0SA

Tel: (01835) 824000 Fax: (01835) 825158

E-mail: ed&ep@scotborders.gov.uk

Office Hours:	Monday to Thursday = 8:45am - 5pm
	Friday = 8:45am - 3:45pm

- Copies of the entire register or entries relating to particular sites will be available for purchase from the address above. A charge will be made for this service based on the number of pages required.
- 7.8.3 Charges will be levied at the rate set by Economic Development & Environmental Planning at the time of application¹⁴.

¹¹ The theoretical possibility exists in the Scottish Borders for cross-boundary sites to be special sites, in which case (if the boundary was the border with England) the Environment Agency would be the enforcing authority.

¹² Information will therefore be copied within 10 working days (see 7.6.3 above).

¹³ SEPA (2000) "Framework for Local Authority - SEPA Liaison under Part IIA of the Environmental Protection

Act 1990 (Contaminated Land)" para 7.2

14 These charges are reviewed on an annual basis but are currently (as at 1st April 2001) £1 for every 10 sheets of A4 B&W and £1 for every A4 colour copy. An additional charge may be made for postage and packing.

8 SITE REMEDIATION & COST RECOVERY

8.1 Background

- 8.1.1 Following the identification of land which falls within the statutory definition of "contaminated land", local authorities (or SEPA in the case of special sites) are required to ensure that, where appropriate, they are remediated.
- 8.1.2 This duty to ensure appropriate remediation applies to sites identified as "contaminated land" and not to all sites containing elevated levels of contaminants in the soil.
- 8.1.3 This chapter sets out the approach of Scottish Borders Council to the issue of remediation and the issue of cost recovery where it is required to carry out the remedial work itself.

8.2 Remediation

- 8.2.1 In line with the objectives of Scottish Borders Council in relation to the implementation of the contaminated land regime, encouragement will be given for site remediation to be conducted on a voluntary basis rather than through regulatory action.
- 8.2.2 Voluntary remediation can have distinct advantages for all concerned and can often lead to a more acceptable conclusion. Scottish Borders Council, however, will seek to ensure that remediation carried out on a voluntary basis is to at least the standard as would be required if regulatory action had been progressed.
- 8.2.3 Where appropriate, remediation will also be encouraged through the planning system for sites coming forward for development. Appendix 15 sets out the contaminated land policy from the Finalised Structure Plan for the Scottish Borders, submitted to the First Minister in May 2001.

8.3 Methods of Remediation

- 8.3.1 Traditionally, the vast majority of site remediation has taken the form of the excavation of contaminated soil and its disposal in a suitably licensed landfill site.
- 8.3.2 Over recent years, however, much effort has been put into the development of remedial techniques which are more environmentally sustainable. A wide variety of methods have been and continue to be developed ranging from bioremediation to soil washing.
- 8.3.3 Scottish Borders Council will seek to ensure that consideration is given to the best practicable environmental option in each case where remediation is undertaken, either under the contaminated land regime, through the planning system or on a voluntary basis.

8.4 Cost Recovery

8.4.1 Scottish Borders Council has been given power¹ to recover reasonable costs from the appropriate person(s) where it is required to carry out remedial action.

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¹ Environmental Protection Act 1990, S78P(1)

- 8.4.2 In making cost recovery decisions, Scottish Borders Council will have regard to the statutory guidance issued by the Scottish Executive² as well as the following factors:
 - ⇒ The costs incurred by the Council; and
 - \Rightarrow The likely cost of debt recovery.
- 8.4.3 The default position of the Council will be that it will seek to recover its full costs from the relevant appropriate person(s).

8.5 Orphan Linkages

- 8.5.1 Orphan linkages exist on sites which fall within the statutory definition of contaminated land but where no appropriate person can be found or where those who would otherwise be liable are exempted by one of the relevant statutory provisions.
- 8.5.2 In general, "Orphan Linkages" arise where:
 - The linkage relates solely to the pollution of controlled waters and no Class A person can be identified;
 - ⇒ No class A or Class B persons can be found; or
 - Those who would otherwise be liable are exempt by one of the relevant statutory provisions.
- 8.5.3 In the event of orphan linkages, the enforcing authority has the power to carry out the remediation action relating to that linkage.
- 8.5.4 In such cases there is no option for cost recovery and Scottish Borders Council will, where remediation is carried out, seek to ensure that the full cost of the remediation action is reimbursed by the Scottish Executive.

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² SERAD Circular 1/2000. Annex 3, Chapter E

9 IMPLEMENTATION

9.1 Background

- 9.1.1 The preceding chapters have outlined the Strategy that Scottish Borders Council will adopt in order to meet its responsibilities under the contaminated land regime.
- 9.1.2 This chapter addresses the issue of Strategy implementation in terms of timescales and the division of responsibility within Scottish Borders Council.

9.2 Timetable

- 9.2.1 The timetable for strategy implementation has been determined by the characteristics of the area (including the availability of information) and the resources available to Scottish Borders Council.
- 9.2.2 Table 9.1 sets out the four phases to the implementation of the contaminated land regime within the Scottish Borders and the paragraphs below elaborate on these stages.

Phase 1	Phase 1 Preparation and Adoption of Strategy 14 th July 2000 ⇒ 14 th October	
Phase 2	Data collection	14 th October 2001 ⇒ 14 th October 2003
Phase 3	Site Prioritisation & Investigation	14 th October 2003 ⇒ to be determined
Phase 4	Review	On-going

Table 9.1: Timetable for Strategy Implementation

- 9.2.3 Phase 1 This phase commenced with the entry into force of the contaminated land regime on 14th July 2000. To date, work has focused on the preliminary collation and acquisition of data and the preparation of the Contaminated Land Inspection Strategy. This phase will be complete when Scottish Borders Council adopts this Strategy, which it is required to do by 14th October 2001.
- 9.2.4 **Phase 2** This phase will concentrate on data collection and relates in particular to the requirements outlined in Tables 5.2 and 5.3. In addition, there will be a focus on gaining information relating to former gasworks and landfill sites, as outlined in section 5.7. During this period, a site prioritisation methodology will need to be developed which is capable of meeting the needs of Scottish Borders Council and prioritising sites in a manageable way for further investigation. This phase will be complete when the initial trawl of data sources is complete and the information is ready to be used as an input to the site prioritisation process.
- 9.2.5 **Phase 3** This phase will start with the prioritisation of sites for further inspection. The length of this phase of the implementation will be dependent on the number of potentially contaminated sites identified during Phase 2 and the number of sites requiring detailed intrusive investigation and regulatory action. At the current time it is not possible to make an estimate of the length of this phase, although a clearer indication should be possible when this Strategy is reviewed in October 2003 as Phase 3 commences.

- 9.2.6 **Phase 4** Scottish Borders Council will keep this Strategy under periodic review and will also review decisions when new information becomes available, as set out in the following chapter.
- 9.2.7 Dealing with urgent sites by their very nature cannot wait until full site prioritisation in October 2003, but must be responsive to emerging information. While the statutory guidance requires local authorities to take a strategic approach to its inspection duties, dealing with urgent sites will always take priority. Scottish Borders Council will seek to avoid, wherever possible, being deflected from the strategic approach but this may not always be possible given limited resources.

9.3 Internal Responsibilities

- 9.3.1 Scottish Borders Council recognises that the expertise necessary for the implementation of this Strategy does not currently lie within any one service group, or in some cases within the Council at all.
- 9.3.2 It is therefore proposed that responsibility for individual parts of Strategy implementation will be divided between service groups, while overall management will be co-ordinated through the mechanism of the Contaminated Land Working Group (chaired by the Head of Environmental Health).
- 9.3.3 Table 9.2 below outlines the service groups of Scottish Borders Council who are expected to have the most involvement in the implementation of this Strategy and their likely principal tasks.
- 9.3.4 One of the first tasks of the Contaminated Land Working Group following adoption of this Strategy will be the preparation of an implementation plan which adds detail to the structure presented in Table 9.2.

Table 9.2: Internal Responsibilities

Service Group	Principal Tasks		
Economic Development & Environmental Planning	Preparation and review of Contaminated Land Inspection Strateg Data acquisition and management (particularly with respect to the use of GIS). Maintenance of the Contaminated Land Register.		
Lifelong Care	Preliminary Screening / Site Prioritisation. Investigation of complaints and information supplied by the public. Regulatory action.		
Transport & Environmental Standards	Phase I Site Investigations and the commissioning of consultants to undertake Phase II Site Investigations.		
Corporate Resources	Legal and financial advice regarding Strategy implementation and regulatory action.		

10 MONITORING & REVIEW

10.1 Background

- 10.1.1 While every effort has been made to ensure that this Strategy and the decisions based upon it are robust and defensible, it is recognised that both the context and experience gained during implementation might trigger the need for a review.
- 10.1.2 This chapter will address the types of review that might be required and consider a number of issues which might trigger such a review. This will lead to a brief analysis of some of the issues which will need to be monitored.

10.2 Types of Review

- 10.2.1 It is envisaged that there will be the need to consider two fundamental types of review:

 - Review of prioritisation and inspection decisions.
- 10.2.2 In addition, a useful distinction can be made in relation to the timing of such reviews between routine periodic reviews and non-routine reviews.
- 10.2.3 Table 10.1 below indicates the nature of the review appropriate to both types and shows that it is considered unlikely that periodic reviews will be required for prioritisation and inspection decisions.

Type of Review	Periodic	Non-Routine
Strategy Review	✓	>
Prioritisation & Inspection Review	Х	V

Table 10.1: Type and Nature of Expected Reviews

10.3 Strategy Review

- 10.3.1 This is the first Contaminated Land Inspection Strategy produced by Scottish Borders Council and is the first time the issue of contaminated land has been addressed at a strategic level. In addition, at the start of this process there was no available examples of what a Contaminated Land Inspection Strategy might be.
- 10.3.2 As a result, it is recognised that the experience of implementation and developing good practice in other areas may suggest that modifications could be made to the Strategy which would increase its efficiency and effectiveness. A periodic review of the Strategy in its entirety is seen as the best way to ensure that these improvements are incorporated into the Strategy.
- 10.3.3 It is considered that, given the likely extent of the issue of contaminated land in the Scottish Borders, the availability of resources and the consequent pace of implementation, a review after the first year of implementation would be premature and inefficient. The first periodic review of the Strategy will therefore take place and be

- reported to the Council's Executive prior to 14th October 2003, the end of the second year of Strategy implementation.
- 10.3.4 The report on the first periodic review will suggest a proposed timescale for the second periodic review to take place, based on the experience to date and an assessment of the future.
- 10.3.5 In addition to the periodic review of the full Strategy, there are a number of triggers which could require a review of part of the Strategy. These will be discussed in more detail in section 10.5 below.
- 10.3.6 Where it is considered that an amendment to the Strategy is required, consultation with all statutory consultees and relevant interested parties will take place prior to formal adoption by the Council. Such consultation may be on a more limited basis than the consultation exercise on the draft Strategy.

10.4 Prioritisation & Inspection Review

- 10.4.1 Individual prioritisation and inspection decisions will be based on the best available information at the time the decision is made.
- 10.4.2 Scottish Borders Council recognises, however, that subsequent events and the availability of fresh information could bring the enduring appropriateness of decisions into question. Where this is the case, mechanisms are required to ensure that decisions are re-evaluated so that they continue to be robust and defensible.
- 10.4.3 Depending on the nature of the trigger, a review might be required of a single decision, a set of decisions or all decisions. Potential triggers are discussed in more detail in section 10.5 below. The potential requirement for decisions to be reviewed re-emphasises the necessity of a clear audit trail and clear and consistent record keeping.

10.5 Potential Triggers for Review

10.5.1 As noted above, there are a number of potential triggers for a review of either the Strategy, individual or all prioritisation and inspection decisions. Table 10.2 below lists a number of potential triggers and the type of review that could be required.

Table 10.2: Potential Triggers and the Type of Review Required

Trigger	Strategy Review	Decision Review
Changes to the statutory definition of contaminated land		~
Case law which clarifies the interpretation of the statutory definition of contaminated land		~
Development of new techniques for assessing the risk posed by contaminated land	~	~
Change of use of a site which falls outwith planning control		~
Designation of a new ecological receptor		~
Information supplied by the public		~
Changes to internal Council structure	V	
Freedom of Information legislation	~	

10.5.2 It must be recognised that the triggers listed in Table 10.2 are not exhaustive but are merely shown to illustrate the types of event that could trigger the need for a review. It should also be stressed that in the majority of cases, reviews will concentrate on either one element of the Strategy¹, one geographical area² or one type of pollution linkage³.

10.6 Monitoring Framework

- 10.6.1 In order to ensure that appropriate reviews are triggered when required, there is a need to establish a monitoring framework which sets out the issues that will need to be watched. In most cases, this monitoring will be informal in nature and continuous over time.
- 10.6.2 Table 10.3 below outlines a number of categories of trigger which can be identified and require to be monitored. Where Scottish Borders Council are already aware of issues under these headings, these are noted.

Table 10.3: Monitoring Framework

	Trigger		Example
1	Legislation	⇒ Freedom of Information	
		⇒	Access to Environmental Information
		⇒	EU White Paper on Environmental Liability
		⇒	Draft Water Bill ⁴
		⇒	Water Framework Directive
2	Case Law	\Rightarrow	Definition of Contaminated Land
		⇒	Procedural Issues relating to the implementation of Part IIA
3	Government Guidance	\Rightarrow	Directions relating to National Security
		⇒	Directions relating to Commercial Confidentiality
4	Good Practice	⇔ Contaminated Land Inspection Strategies produced by other local authorities	
		⇒	Release of the CLEA model for risk assessment
5	Environmental Designations	\Rightarrow	Designation of new environmental receptors
		⇒	Creation of new pathways
6	Information	\Rightarrow	Information provided by members of the public
		⇒	Fresh evidence not available at the time of original decision

¹ For example, legislation relating to public access to information.

² For example, the designation of a new Site of Special Scientific Interest.

³ For example, amended guidance from SEPA relating to the protection of controlled waters.

⁴ This Bill, if enacted, would change the statutory definition of "contaminated land" in England. While the Act would not apply to Scotland, it may have an influence on Scottish Borders Council due to the fact that the area borders four English local authorities.

APPENDICES

CATEGORIES OF SIGNIFICANT HARM

	Type of Receptor	Description of harm to that type of receptor that is to be regarded as significant harm
1	Human beings	Death, disease, serious injury, genetic mutation, birth defects or the impairment of reproductive functions.
		For these purposes, disease is to be taken to mean an unhealthy condition of the body or a part of it and can include, for example, cancer, liver dysfunction or extensive skin ailments. Mental dysfunction is included only insofar as it is attributable to the effects of a pollutant on the body of the person concerned.
		In this Chapter, this description of significant harm is referred to as a "human health effect".
2	Any ecological system, or living organism forming part of such a system, within a location which is: > an area notified as an area of special scientific interest (commonly called a site of special scientific interest – SSSI) under section 28 of the Wildlife and Countryside Act 1981; > any land declared a national nature reserve under section 35 of that Act; > any area designated as a marine nature reserve under section 36 of that Act; > an Area of Special Protection for Birds, established under section 3 of that Act;	For any protected location: harm which results in an irreversible adverse change, or in some other substantial adverse change, in the functioning of the ecological system within any substantial part of that location; or harm which affects any species of special interest within that location and which endangers the long-term maintenance of the population of that species at that location. In addition, in the case of a protected location which is a European Site (or a candidate Special Area of Conservation or a potential Special Protection Area), harm which is incompatible with the favourable conservation status of natural habitats at that location or species typically found there. In determining what constitutes such harm, the local authority should have regard to the advice of Scottish Natural Heritage and to the requirements of the Conservation (Natural Habitats etc) Regulations 1994.
	 any European Site within the meaning of regulation 10 of the Conservation (Natural Habitats etc) Regulations 1994 (ie Special Areas of Conservation and Special Protection Areas); 	In this Chapter, this description of significant harm is referred to a an "ecological system effect".
	any candidate Special Areas of Conservation (see Scottish Office Circular 6/1995) or potential Special Protection Areas given equivalent protection;	
	any habitat or site afforded policy protection (ie candidate Special Areas of Conservation, potential Special Protection Areas and listed Ramsar sites);	
	any nature reserve established under section 21 of the National Parks and Access to the Countryside Act 1949; or	
	 any candidate National Park to be designated under the proposed National Parks Act. 	

3 Property in the form of:

- crops, including timber;
- produce grown domestically, or on allotments, for consumption;
- livestock;
- other owned or domesticated animals;
- wild animals which are the subject of shooting or fishing rights.

For crops, a substantial diminution in yield or other substantial loss in their value resulting from death, disease or other physical damage. For domestic pets, death, serious disease or serious physical damage. For other property in this category, a substantial loss in its value resulting from death, disease or other serious physical damage.

The local authority should regard a substantial loss in value as occurring only when a substantial proportion of the animals or crops are dead or otherwise no longer fit for their intended purpose. Food should be regarded as being no longer fit for purpose when it fails to comply with the provisions of the Food Safety Act 1990. Where a diminution in yield or loss in value is caused by a pollutant linkage, a 20% diminution or loss should be regarded as a benchmark for what constitutes a substantial diminution or loss.

In this Chapter, this description of significant harm is referred to as an "animal or crop effect".

4 Property in the form of buildings.

For this purpose, "building" means "any structure or erection, and any part of a building including any part below ground level, but does not include plant or machinery comprised in a building".

Structural failure, substantial damage or substantial interference with any right of occupation.

For this purpose, the local authority should regard substantial damage or substantial interference as occurring when any part of the building ceases to be capable of being used for the purpose for which it is or was intended.

Additionally, in the case of a scheduled Ancient Monument, substantial damage should be regarded as occurring when the damage significantly impairs the historic, architectural, traditional, artistic or archaeological interest by reason of which the monument was scheduled.

In this Chapter, this description of significant harm is referred to as a "building effect".

Source: SERAD Circular 1/2000 - Table A (p74 & 75)

NOTE

This table sets out the limitations as to what can be considered as a "*receptor*" under the contaminated land regime and the types of harm that can be classed as "*significant harm*" under the terms of the definition of contaminated land.

SIGNIFICANT POSSIBILITY OF SIGNIFICANT HARM

	Descriptions Of Significant Harm (As Defined In Table A)	Conditions For There Being A Significant Possibility Of Significant Harm		
1	Human health effects arising from	If the amount of the pollutant in the pollutant linkage in question:		
	> the intake of a contaminant, or	> which a human receptor in that linkage might take in, or		
	other direct bodily contact with a contaminant (exposure).	to which such a human might otherwise be exposed, as a result of the pathway in that linkage, would represent an unacceptable intake or exposure, assessed on the basis of relevant information on the toxicological properties of that pollutant.		
		Such an assessment should take into account:		
		the likely total intake of, or exposure to, the substance or substances which form the pollutant, from all sources including that from the pollutant linkage in question;		
		the relative contribution of the pollutant linkage in question to the likely aggregate intake of, or exposure to, the relevant substance or substances; and		
		the duration of intake or exposure resulting from the pollutant linkage in question.		
		The question of whether an intake or exposure is unacceptable is independent of the number of people who might experience or be affected by that intake or exposure.		
		Toxicological properties should be taken to include carcinogenic, mutagenic, teratogenic, pathogenic, endocrine-disrupting and other similar properties.		
2	All other human health effects (particularly by way of explosion or fire).	If the probability, or frequency, of occurrence of significant harm of that description is unacceptable, assessed on the basis of relevant information concerning:		
		> that type of pollutant linkage, or		
		> that type of significant harm arising from other causes.		
		Such an assessment should take into account the levels of risk which have been judged unacceptable in other similar contexts.		
3	All ecological system effects.	If significant harm of that description is more likely than not to result from the pollutant linkage in question, taking into account relevant information for that type of pollutant linkage, particularly in relation to the ecotoxicological effects of the pollutant.		
4	All animal and crop effects.	If significant harm of that description is more likely than not to result from the pollutant linkage in question, taking into account relevant information for that type of pollutant linkage, particularly in relation to the ecotoxicological effects of the pollutant.		
5	All building effects.	If significant harm of that description is more likely than not to result from the pollutant linkage in question during the expected economic life of the building (or, in the case of a scheduled Ancient Monument, the foreseeable future), taking into account relevant information for that type of pollutant linkage.		

Source: SERAD Circular 1/2000 - Table B (p77 & 78)

NOTE

This table sets out the conditions for there being a "significant possibility of significant harm" to a "receptor" under the terms of the definition of contaminated land.

REQUIREMENTS OF STRATEGY

Listed below are the requirements of the Contaminated Land Inspection Strategy as outlined in the statutory guidance (SERAD Circular 1/2000).

Source	Requirement	
B9 (a)	The approach of the Council should be rational, ordered and efficient.	
B9 (b)	The approach of the Council should be proportionate to the seriousness of any actual or potential risk.	
B9 (c)	The Council should seek to ensure that the most pressing and serious problems are located first.	
B9 (d)	The Council should seek to ensure that resources are prioritised to investigate areas where it is most likely to identify contaminated land.	
B9 (e)	The Council should seek to ensure that it effectively identifies requirements for the detailed inspection of land.	
B10	The Council should ensure that the strategy reflects local circumstances.	
B10 (a)	The Council should consider any available evidence that significant harm or pollution of controlled waters is being caused.	
B10 (b)	The Council should consider the extent to which any receptor is likely to be found in its area.	
B10 (c)	The Council should consider the extent to which any receptor is likely to be exposed to a contaminant.	
B10 (d)	The Council should consider the extent to which information on land contamination is already available.	
B10 (e)	The Council should consider the history, scale and nature of industrial or other activities which may have contaminated land.	
B10 (f)	The Council should consider the nature and timing of past redevelopment in its area.	
B10 (g)	The Council should consider the extent to which remedial action has already taken place, or is likely to be taken as part of an impending redevelopment proposal.	
B10 (h)	The Council should consider the extent to which other regulatory authorities are considering possible harm to receptors in the Council area or the likelihood of any pollution of controlled waters being caused.	
B11	The Council should consult SEPA and other relevant bodies when developing its strategy.	
B12	The Council should set out its approach as a written strategy.	
B13	The Council should keep its strategy under periodic review.	
B14	The Council should not await the publication of its strategy before investigating particular areas of land where necessary.	
B15 (a)	The strategy should include a description of the particular characteristics of the area and how they have influenced the approach adopted.	
B15 (b)	The strategy should include the Council's aims, objectives and priorities.	
B15 (c)	The strategy should include appropriate timescales for the inspection of the Council area.	
B15 (d) i	The strategy should include arrangements and procedures for dealing with land for which it may itself have responsibility by virtue of current or former ownership or occupation.	
B15 (d) ii	The strategy should include arrangements and procedures for obtaining and evaluating information on actual harm or pollution of controlled waters.	
B15 (d) iii	The strategy should include arrangements and procedures for identifying receptors and the possibility or likelihood of their exposure to a contaminant.	

Appendix 3: Requirements of Strategy

B15 (d) iv	The strategy should include arrangements and procedures for obtaining and evaluating existing information on the possible presence of contaminants.	
B15 (d) v	The strategy should include arrangements and procedures for liaison with, and responding to information from, other statutory bodies, including SEPA.	
B15 (d) vi	The strategy should include arrangements and procedures for liaison with, and responding to information from, the owners/ occupiers of land and other interested parties.	
B15 (d) vii	The strategy should include arrangements and procedures for responding to information or complaints from the public, businesses and voluntary organisations.	
B15 (d) viii	The strategy should include arrangements and procedures for planning and reviewing a programme for inspecting areas of land.	
B15 (d) ix	The strategy should include arrangements and procedures for carrying out the detailed inspection of particular areas of land.	
B15 (d) x	The strategy should include arrangements and procedures for reviewing and updating assumptions and information used to assess the need for the detailed inspection of different areas, and managing new information.	
B15 (d) xi	The strategy should include arrangements and procedures for managing the information obtained and held in the course of carrying out the Council's inspection duties.	

ORGANISATIONS RESPONDING TO CONSULTATION

Listed below are the individuals and organisations who were sent copies of the draft Strategy. In addition, the draft Strategy was made available at local libraries and was available on request from the Planning and Development Department. It was also placed on the Scottish Borders Council website for the duration of the consultation period.

 \checkmark = Response received by 3^{rd} August 2001

 $O = Response received after 3^{rd} August 2001$

Organisation / Individual	Response
Organisation / marviada	Kesponse
Scottish Executive	0
Scottish Environment Protection Agency	<u> </u>
Environment Agency (NW & NE)	0
Scottish Natural Heritage	
Borders Health Board	
Scottish Enterprise Borders	
Historic Scotland	
Food Standards Agency	
British Geological Survey	
National Radiological Protection Board	
Forestry Commission	
Forest Enterprise	
East of Scotland Water	0
River Tweed Commissioners / Tweed Foundation	<u> </u>
Lothian & Borders Fire Brigade	
Tweed Forum	_
Friends of the Earth	
National Farmers Union of Scotland	
Country Landowners Federation Scottish Wildlife Trust	
Scottish House Builders Association	
TT . A	
Housing Associations	√
Scottish Homes	<u> </u>
Berwickshire Housing Association	
Eildon Housing Association Scottish Borders Housing Association	
Waverley Housing Trust	
Adjacent Local Authorities	
City of Edinburgh Council	✓
Dumfries & Galloway Council East Lothian Council	<u> </u>
Midlothian Council	
South Lanarkshire Council	✓
West Lothian Council	
Alnwick District Council	
Berwick-upon-Tweed District Council	
Carlisle City Council	
Tynedale Council	
Comments Commelle	
Community Councils	
Abbey St. Bathans, Bonkyl & Preston	
Ancrum	
Ayton	
Bowden (Village Committee)	
Burnfoot	
Burnmouth	
Carlops	

Appendix 4: Organisations Responding to Consultation

C1: '1	
Chirnside	
Clovenfords & District	
Cockburnspath	
Coldingham	
Coldstream & District	
Crailing, Eckford & Nisbet	
Cranshaws & Longformacus	
Denholm & District	
Duns	
Earlston	
Eddleston & District	
Ednam, Stichill & Berrymoss	
Edrom, Allanton & Whitsome	
Ettrick & Yarrow	
Eyemouth Town Council	
Floors, Makerstoun, Nenthorn & Smailholm	
Foulden, Mordington & Lamberton	
Galashiels & Langlee	0
Gavinton, Fogo & Polwarth	
Grantshouse	
Greenlaw & Hume	
Hawick	
Heiton & Roxburgh	
Heriot	
Hobkirk	
Hutton & Paxton	
Innerleithen, Traquair & Glen	
Jed Valley	
Jedburgh	
Kalewater	
Kelso	
Lamancha, Newlands & Kirkurd	
Lanton	
Lauderdale	
Leitholm, Eccles & Birgham	
Lilliesleaf, Ashkirk & Midlem	
Manor, Stobo & Lyne	
Melrose & District	
Newcastleton & District	
Newtown St. Boswells	
Oxnam Water	
Oxton & Channelkirk	
Reston & Auchencrow	
Royal Burgh of Peebles & District	
Selkirk & District	✓
Skirling	
Southdean	
Sprouston	
St. Abbs	
St. Boswells Parish	
Stow & Fountainhall	
Swinton & Ladykirk	
Tweedbank	
Upper Teviotdale & Borthwick Water	
Upper Tweed	
Walkerburn & District	
West Linton	
West Linton Westruther & Gordon	
Yetholm	
1 Cuivilli	

POPULATION DISTRIBUTION

Table 1: Population Density in the United Kingdom

	Population (2000)	Area (sq km)	Pop / sq km
England	49,997,100	130,422	383
Northern Ireland	1,697,800	13,576	125
Scotland	5,114,600	78,133	65
Wales	2,946,200	20,779	142
United Kingdom	59,755,700	242,910	246

Source: 2000 MYE, GRO(S) & National Statistics

Table 2: Population Density of Scottish Local Authorities

	Population (2000)	Area (sq km)	Pop / sq km
Highland	208,600	25,784	8.1
Eilean Siar	27,180	3,134	8.7
Argyll & Bute	88,790	6,930	12.8
Shetland Islands	22,440	1,438	15.6
Orkney Islands	19,480	992	19.6
Scottish Borders	106,900	4,734	22.6
Dumfries & Galloway	145,800	6,439	22.6
Perth & Kinross	133,620	5,311	25.2
Aberdeenshire	227,200	6,318	36.0
Moray	84,950	2,238	38.0
Stirling	85,220	2,196	38.8
Angus	109,180	2,181	50.1
Scotland	5,114,600	78,133	65.5
South Ayrshire	113,920	1,202	94.8
East Ayrshire	120,630	1,252	96.3
East Lothian	91,270	678	134.6
North Ayrshire	138,850	884	157.1
South Lanarkshire	307,400	1,771	173.6
Midlothian	82,180	356	230.8
Fife	350,400	1,323	264.9
Clackmannanshire	48,460	157	308.7
West Lothian	156,710	425	368.7
Falkirk	144,320	299	482.7
East Renfrewshire	89,790	173	519.0
Inverclyde	84,600	162	522.2
West Dunbartonshire	94,600	162	584.0
East Dunbartonshire	110,780	172	644.1
Renfrewshire	176,970	261	678.0
North Lanarkshire	327,620	474	691.2
Aberdeen City	211,250	186	1,135.8
Edinburgh, City of	453,440	262	1,730.7
Dundee City	142,700	65	2,195.4
Glasgow City	609,350	175	3,482.0

Source: 2000 MYE, GRO(S)

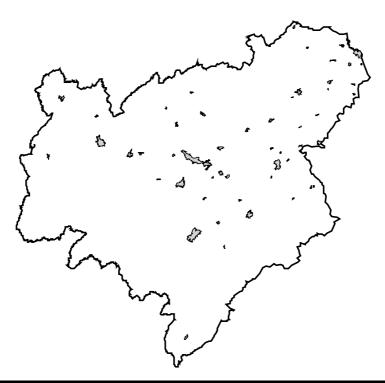
Table 3: Main Settlements in the Scottish Borders

Hawick	15,719
Galashiels	13,766
Peebles	7,080
Kelso	6,045
Selkirk	5,952
Jedburgh	4,088
Eyemouth	3,477
Innerleithen	2,581
Duns	2,450
Melrose	2,276
Coldstream	1,748
Earlston	1,641
Chirnside	1,259
West Linton	1,163
St Boswells	1,143
Newtown St Boswells	1,116
Lauder	1,064
Newcastleton	808
Walkerburn	660
Coldingham	635
Yetholm	612
Denholm	593
Greenlaw	588
Ayton	554
Stow	530
Gordon	410
Clovenfords	357
Ancrum	355

Cockburnspath	344
Gattonside	331
Reston	298
Broughton	275
Eddleston	275
Burnmouth	255
Swinton	255
Bowden	246
Lilliesleaf	225
Morebattle	202
St. Abbs	202
Gavinton	181
Oxton	157
Paxton	153
Foulden	150
Bonchester Bridge	141
Heiton	140
Leitholm	138
Birgham	136
Ednam	130
Stichill	118
Allanton	111
Skirling	110
Sprouston	109
Fountainhall	106
Yarrowford	103
	100

Source: 1991 Census, GRO(S)

Figure 1: Location of Settlements in the Scottish Borders



GEOLOGY

The **Solid Geology** of the Scottish Borders is quite varied in character according to locality and may best be approached with reference to the former County areas.

In the West of the Borders lies the former county of Peeblesshire. It is comprised principally of rocks of Ordovician and Silurian age. These formations do not differ greatly in lithography, with greywackes, siltstones and shales being the predominant rock types. The Ordovician strata forms a wide belt running in a south-west/north-easterly direction from the Broughton/Glenholm area in the south to the Moorfoot Hills in the north. The Silurian rocks extend over the rest of the area to the south and east, where they continue into the former county of Selkirkshire. The northern edge of the Ordovician strata is marked by the Southern Upland Fault. The rocks to the northwest of the fault are of mainly Old Red Sandstone and Lower Carboniferous age although the core of the Pentland Hills date to the Upper Silurian.

Lying to the south and east of Peeblesshire lies the former county of Selkirkshire. As already mentioned, the Silurian formations in Peeblesshire extend into this area, and make up the bulk of the solid geology of this part of the Borders. There are however a scattering of places where dykes of igneous rock (mainly dolerites and porphyrites) have intruded into the older sediments; the most noticeable of these being the Eildon Hills complex.

To the east and south again, lies the former county of Roxburgh. The solid geology of this area contains several different types of rock. The western part of the area, extending as far east as the Leader Water/ Minto/ Shankend Hill /north-west flank of Liddesdale, is composed of Silurian greywackes and shales. Travelling east to a rough line from Kelso to Carter Fell and the lower valley of the Kale Water the rock is of Upper Old Red Sandstone age. These sediments contain many areas of intrusive igneous rock. To the south-east of this area the principal rock types are lavas dated to the Lower Old Red Sandstone age. The area around Kelso comprises sediments of Lower Carboniferous age, bounded on the west and south by lavas of the same age. These lavas are also found amongst the Carboniferous Limestones and Calciferous Sandstones which make up Liddesdale. Further lava deposits form the landscape east towards the Cheviots.

To the north and east, lies the relatively level countryside of the former county of Berwickshire. In terms of it's geology, Berwickshire may be subdivided into three main areas; the Merse, the Lammermuirs and Lauderdale. Rocks of Carboniferous age occur over approximately 300 square kilometres of the Merse, the principal outcrop extending west from the English border in the direction of Duns, Greenlaw and towards Kelso. To the north of this can be found the Lammermuirs, where a broad belt of Silurian strata lies, separated into two main masses by a band of Old Red Sandstone which runs towards the Dunbar area. The same Old Red Sandstone strata runs west of north up Lauderdale and down towards the Jedburgh area. As in the rest of the Borders, these sedimentary deposits contain many local igneous intrusions, typical examples being those at Duns and Hume Castles. Remnants of old lava flows can also be found at various localities throughout the former County.

In general, there are no geological records in the Borders area from the end of the Carboniferous Era until the Quaternary Ice Age. Throughout this period the Borders were repeatedly covered by ice. The flow of this ice was in a roughly north easterly direction away from the high ground of the central Southern Uplands, and has removed all traces of any later strata.

In terms of **Drift Geology**, the Borders consists of glacial and alluvial deposits, meltwater deposits, boulder clays and bedrock.

The greater part of the Borders consists of the local bedrock which lies close to the surface and is locally overlain with peat at the highest elevations. At lower elevations, the predominant deposit type changes to Boulder Clays which have arisen through the action of Glacial Ice on the native rocks. These deposits reflect the nature of the parent rock type and continue down to the lower land areas to the North and East of the Area where they become intermixed with Glacial and Meltwater Deposits. This mix of deposits is further added to on the valley floors where sometimes sizeable areas of Alluvial Deposits exist.

The deposits of Greywacke found in the Borders have been extensively worked, principally as a source of building material and roadstone. Large and small scale quarrying operations have taken place throughout the area as can be seen by the number of quarries which dot the landscape. Lower Palaeozoic shales have been exploited as a source of roofing slates and old lime workings can be found where deposits of Lower Carboniferous Limestone occur within the area.

The extensive deposits of loose sediments deposited by the last Ice Age have been worked as a source of sand and gravel, and the Borders contains both active and abandoned sand pits.

Peat deposits within the Borders have tended to be worked by hand only as a source of local fuel. There has been some historical exploitation of coal, but this was only carried out on a very small scale and had, by and large, ceased by the middle of the 19th century. Similarly, there has been small scale mining of copper, iron, lead, zinc, silver and gold at various times and localities within the region.

LISTED BUILDINGS & SCHEDULED ANCIENT MONUMENTS

Listed Buildings in the Scottish Borders

Listed Buildings are designated by Historic Scotland because of their special architectural or historical interest. All buildings erected before 1840 (and where the character remains substantially unimpaired) are listed, along with later buildings selected on the basis of individual character and quality.

There are currently 2,646 statutory Listed Buildings in the Scottish Borders (as at 31/3/2001). These buildings are classified according to their relative importance as shown in Table 1 below:

Table 1: Listed Buildings in the Scottish Borders (as at 31/3/2001)

	A	В	C(s)	TOTAL
Listed Buildings	171	1,191	1,284	2,646
	6%	45%	49%	

A	Buildings of national or international importance
В	Buildings of regional importance
C(s)	Buildings of local importance

Historic Scotland is continuing with its re-survey of the Scottish Borders and, over the past few years, this has led to a significant increase in the number of Listed Buildings. The current total represents a 66% increase over the 1993 total of 1,590.

Figure 1: Listed Buildings in the Scottish Borders



Scheduled Ancient Monuments in the Scottish Borders

The Sites and Monuments Register (SMR) maintained by Scottish Borders Council currently holds 11,726 records (as at 31/3/2001). Of these, 726 are protected as Scheduled Ancient Monuments under the Ancient Monuments and Archaeological Areas Act 1979, responsibility for which rests with Historic Scotland. The management of non-scheduled sites is governed by the Town and Country Planning (Scotland) Act 1997 and responsibility resides with the local authority.

The Scheduled Ancient Monuments in the Scottish Borders cover a total area of approximately 1,900ha. Sites range in size from features as small as the Glebe Stone near Yarrow (5m²) to the Roman fort of Trimontium near Melrose at over 14ha.

Figure 2 below shows the general location of the Scheduled Ancient Monuments and it can be seen that there are a number of linear as well as point and area features shown.



Figure 2: Scheduled Ancient Monuments in the Scottish Borders

DEPARTMENT OF THE ENVIRONMENT INDUSTRY PROFILES

The DOE Industry Profiles provide developers, local authorities and anyone else interested in contaminated land, with information on the processes, materials and wastes associated with individual industries. They also provide information on the contamination which might be associated with specific industries, factors that affect the likely presence of contamination and the effect of the mobility of contaminants. They are not definitive studies but they introduce some of the technical considerations that need to be borne in mind at the start of an investigation for possible contamination. The list below, therefore, gives an indication of the types of land use where contamination may occur.

It should be stressed, however, that this list is not comprehensive and the context for its production will have influenced the land uses selected. Each bullet is a separate document, available from the Department of Transport, Local Government and the Regions at the address below.

- ⇒ Airports.
- ⇒ Animal and animal products processing works.
- ⇒ Asbestos manufacturing works.
- ⇒ Ceramics, cement and asphalt manufacturing works.
- ⇒ Chemical works: coatings (paints and printing inks) manufacturing works.
- ⇒ Chemical works: cosmetics and toiletries manufacturing works.
- ⇒ Chemical works: disinfectants manufacturing works.
- ⇒ Chemical works: explosives, propellants and pyrotechnics manufacturing works.
- ⇒ Chemical works: fertiliser manufacturing works.
- ⇒ Chemical works: fine chemicals manufacturing works.
- ⇒ Chemical works: inorganic chemicals manufacturing works.
- ⇒ Chemical works: linoleum, vinyl and bitumen-based floor covering manufacturing works.
- ⇒ Chemical works: mastics, sealants, adhesives and roofing felt manufacturing works.
- ⇒ Chemical works: organic chemicals manufacturing works.
- ⇒ Chemical works: pesticides manufacturing works.
- ⇒ Chemical works: pharmaceuticals manufacturing works.
- ⇒ Chemical works: rubber processing works (including works manufacturing tyres or other rubber products).
- ⇒ Chemical works: soap and detergent manufacturing works.
- ⇒ Dockyards and dockland.
- ⇒ Engineering works: aircraft manufacturing works.
- ⇒ Engineering works: electrical and electronic equipment manufacturing works (including works manufacturing equipment containing PCBs).
- ⇒ Engineering works: mechanical engineering and ordnance works.
- ⇒ Engineering works: railway engineering works.
- ⇒ Engineering works: shipbuilding, repair and shipbreaking (including naval shipyards).
- ⇒ Engineering works: vehicle manufacturing works.
- ⇒ Gasworks, coke works and other coal carbonisation plants.
- ⇒ Metal manufacturing, refining and finishing works: electroplating and other metal finishing works.
- ⇒ Metal manufacturing, refining and finishing works: iron and steelworks.
- ⇒ Metal manufacturing, refining and finishing works: lead works.
- ➡ Metal manufacturing, refining and finishing works: non-ferrous metal works (excluding lead works).

Appendix 8: Department of the Environment Industry Profiles

- ⇒ Metal manufacturing, refining and finishing works: precious metal recovery works.
- ⇒ Oil refineries and bulk storage of crude oil and petroleum products.
- ⇒ Power stations (excluding nuclear power stations).
- ⇒ Pulp and paper manufacturing works.
- ⇒ Road vehicle fuelling, service and repair: garages and filling stations.
- ⇒ Road vehicle fuelling, service and repair: transport and haulage centres.
- ⇒ Sewage works and sewage farms.
- ⇒ Textile works and dye works.
- ⇒ Timber products manufacturing works.
- ⇒ Timber treatment works.
- ⇒ Waste recycling, treatment and disposal sites: drum and tank cleaning and recycling plants.
- ⇒ Waste recycling, treatment and disposal sites: hazardous waste treatment plants.
- ⇒ Waste recycling, treatment and disposal sites: landfills and other waste treatment or waste disposal sites.
- ⇒ Waste recycling, treatment and disposal sites: metal recycling sites.
- ⇒ Waste recycling, treatment and disposal sites: solvent recovery works.
- ⇒ Profile of miscellaneous industries, incorporating: Charcoal works, Dry-cleaners, Fibreglass and fibreglass resins manufacturing works, Glass manufacturing works, Photographic processing industry, Printing and bookbinding works.

Documents available for purchase (£10 each) from:

Department of Transport, Local Government and the Regions Publication Sales Centre Cambertown House Goldthorpe Industrial Estate Goldthorpe Rotherham S63 9BL

Tel: (01709) 891318

POTENTIALLY CONTAMINATIVE USES

No.	Use	Type of Contamination
C.1.	AGRICULTURE	⇒ Burial of diseased livestock.
C.2.	EXTRACTIVE INDUSTRY	 Extracting, handling and storage of carbonaceous materials such as coal, lignite, petroleum, natural gas, or bituminous shale (not including the underground workings). Extracting, handling and storage of ores and their constituents.
C.3.	ENERGY	 ⇒ Producing gas from coal, lignite, oil or other carbonaceous material (other than
C.3.	INDUSTRY	from sewage or other waste), or from mixtures of those materials. ⇒ Reforming, refining, purifying and odourising natural gas or any product of the processes outlined in C.3(1) above.
		⇒ Pyrolysis, carbonisation, distillation, liquefication, partial oxidation, other heat treatment, conversion, purification, or refining of coal, lignite, oil, other carbonaceous material or mixtures and products thereof, otherwise than with a view to gasification or making of charcoal.
		 ⇒ A thermal power station (including nuclear power stations and production, enrichment and reprocessing of nuclear fuels). ⇒ Electricity sub-station.
C.4.	PRODUCTION OF METALS	⇒ Production, refining or recovery of metals by physical, chemical, thermal or electrolytic or other extraction process.
		⇒ Heating, melting or casting metals as part of an intermediate or final manufacturing process (including annealing, tempering or similar processes).
		⇒ Cold forming processes (including pressing, rolling, extruding, stamping, forming or similar processes).
		⇒ Finishing treatments, including anodising, pickling, coating, and plating or similar processes.
C.5.	PRODUCTION OF	⇒ Production or refining of non-metals by treatment of the ore.
	NON-METALS AND THEIR PRODUCTS	⇒ Production or processing of mineral fibres by treatment of the ore.
G (⇒ Cement, lime and gypsum manufacture, brickworks and associated processes.
C.6.	GLASS MAKING AND CERAMICS	 ⇒ Manufacture of glass and products based on glass. ⇒ Manufacture of ceramics and products based on ceramics, including glazes and vitreous enamel.
C.7.	PRODUCTION AND USE OF CHEMICALS	 ⇒ Production, refining, recovery or storage of petroleum or petrochemicals or their by-products, including tar and bitumen processes and manufacture of asphalt. ⇒ Production, refining and bulk storage of organic or inorganic chemicals, including fertilisers, pesticides, pharmaceuticals, soaps, detergents, cosmetics, toiletries, dyestuffs, inks, paints, fireworks, pyrotechnic materials or recovered chemicals. ⇒ Production, refining and bulk storage of industrial gases not otherwise covered.
C.8.	ENGINEERING AND MANUFACTURING PROCESSES	
C.9.	FOOD PROCESSING INDUSTRY	⇒ Manufacture of pet foods or animal feedstuffs.
C.10.	ANIMAL BY- PRODUCT PROCESSING	⇒ Processing of animal by-products (including rendering or maggot farming, but excluding slaughterhouses, butchering).
C.11.	PAPER, PULP AND PRINTING INDUSTRY	⇒ Making of paper pulp, paper or board, or paper or board products, including printing or de-inking.

Appendix 9: Potentially Contaminative Uses

C.12	TIMBER AND TIMBER PRODUCTS INDUSTRY	⇧	Chemical treatment and coating of timber and timber products.
C.13.	TEXTILE INDUSTRY	\Rightarrow	Tanning, dressing, fellmongering or other process for preparing, treating or working leather.
		\Rightarrow	Fulling, bleaching, dyeing or finishing fabrics or fibres.
		\Rightarrow	Manufacture of carpets or other textile floor coverings (including linoleum works).
C.14.	RUBBER INDUSTRY	企	Processing of natural or synthetic rubber (including tyre manufacture or retreading).
C.15.	TRANSPORT	\Diamond	Marshalling, dismantling, repairing or maintenance of railway rolling stock.
	INDUSTRY	\Rightarrow	Dismantling, repairing or maintenance of marine vessels, including hovercraft.
		\Rightarrow	Dismantling, repairing or maintenance of road transport or road haulage vehicles.
		\Rightarrow	Dismantling, repairing or maintenance of air or space transport systems.
C.16.	WASTE DISPOSAL	\Rightarrow	Treating of sewage or other effluent.
		\Rightarrow	Storage, treatment or disposal of sludge including sludge from water treatment works.
		\Rightarrow	Treating, keeping, depositing or disposing of waste, including scrap (to include infilled canal basins, docks or rivercourses).
		\Rightarrow	Storage or disposal of radioactive materials.
C. 17	MISCELLANEOUS	\Rightarrow	Premises housing dry cleaning operations.
		\Rightarrow	Laboratories for educational or research purposes.
		\Rightarrow	Demolition of buildings, plant or equipment used for any of the activities in this schedule.

Source: Scottish Office (1991) - Annex 3

NOTE

This list of potentially contaminative uses was prepared in preparation for the implementation of s143 of the Environmental Protection Act 1990, which was subsequently abandoned. While this list does not relate to the current contaminated land regime, it does give an indication of land uses which may have had a negative impact on land quality generally.

NATURAL HERITAGE DESIGNATIONS

Sites of Special Scientific Interest in the Scottish Borders

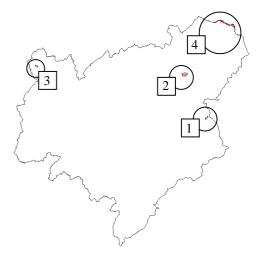
Туре	No.	Range by area (hectares) (Smallest ⇒ Largest)	Size (ha)
Biological	74	1 ➪ 8,848	24,210
Geological	13	1 🕏 94	168
Mixed	10	6.4 ➪ 257	4,370
	97		28,748

Note: River Tweed and its tributaries not shown as SNH are currently consulting on its designation.



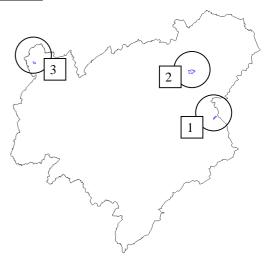
Special Protection Areas in the Scottish Borders

	Special Protection Areas	Designation	Size (ha)
1.	Din Moss - Hoselaw Loch	14/7/88	51
2.	Greenlaw Moor	15/3/96	248
3.	Westwater Reservoir	27/11/95	50
4.	St Abb's Head to Fast Castle	11/8/97	251
			600



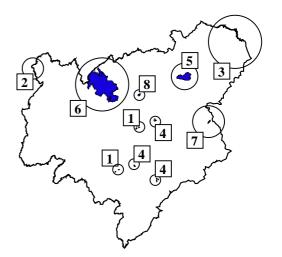
Ramsar Sites in the Scottish Borders

	Ramsar Sites	Designation	Size (ha)
1.	Din Moss - Hoselaw Loch	14/7/88	51
2.	Greenlaw Moor	15/3/96	248
3.	Westwater Reservoir	27/11/95	50
			349



Candidate Special Areas of Conservation in the Scottish Borders

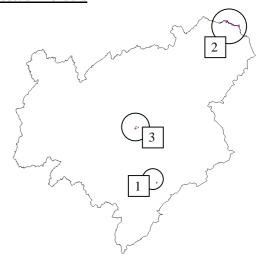
	Candidate Special Areas of Conservation	Designation	Size (ha)
1	Whitlaw and Branxholme	15/6/95	32
2	Craigengar	15/6/95	1
3	Berwickshire and North Northumberland Coast	14/10/96 & 16/12/98	454
4	Border Woods	30/10/00	53
5	Greenlaw Moor	30/10/00	1,172
6	Moorfoot Hills	30/10/00	8,832
7	Hoselaw Loch	30/10/00	51
8	Threepwood Moss	30/10/00	53
			10,648



Note: River Tweed and its tributaries not shown as SNH are currently consulting on its candidate status.

National Nature Reserves in the Scottish Borders

	National Nature Reserves	Designation	Size (ha)
1.	Cragbank Wood	26/04/85	9
2.	St Abb's Head	03/08/84	77
3.	Whitlaw Mosses	19/03/74 & 18/12/80	19
			105



SCOTTISH VACANT & DERELICT LAND SURVEY 2001

Scottish Borders Council carry out an annual Scottish Vacant and Derelict Land Survey (SVDLS) for the Scottish Executive. Definitions of "vacant"¹, "derelict"² and "contaminated"³ are set by the Scottish Executive and the definition of "contaminated" does not relate directly to the statutory definition of "contaminated land" set out in the Environmental Protection Act 1990 (s78A).

As shown in Table 1 below, at the time of the most recent survey in the Scottish Borders (31st March 2001), 84 sites were found to be either vacant or derelict under the definitions noted above, amounting to 68.5 ha of land.

Table 1: Quantity of Vacant & Derelict Land in the Scottish Borders (2001)

Type	Number	Area (ha)
Vacant	45	27.13
Derelict	39	41.37
	84	68.50

This represents 1.5% of the "developed" area of the Borders or 0.015% of the area of the Scottish Borders as a whole. A number of former uses are represented among these sites, as shown in Table 2 below.

Table 2: Former Uses of Vacant & Derelict Land in the Scottish Borders (2001)

Former Use		Number	Area (ha)	%
Agriculture:	Animal Husbandry	2	1.68	2.5
	Other	5	3.24	4.7
Forestry/ Woodland:	Sawmill	1	0.52	0.8
Community & Health:	Hospital	1	0.42	0.6
	Refuse Tip	5	8.31	12.1
	Other	3	0.48	0.7
Defence:	Munitions	1	10.10	14.7
Passive Open Space:	General	6	3.17	4.6
Recreation & Leisure:	Other	1	0.10	0.1
Manufacturing:	Metal Works	1	0.60	0.9
	Other	24	16.21	23.7
Other Gen. Industry exc. Manufacturing:	General	8	2.67	3.9
Mineral Activity:	Sand/ Gravel	1	6.10	8.9
Residential:	Housing	3	0.75	1.1
	Hotels	1	0.68	1.0
Storage:	Gas	4	3.73	5.4
	Other	3	0.63	0.9
Transport:	British Rail	3	3.23	4.7
	Other	2	0.91	1.3
Utility Services:	General	2	0.35	0.5
Wholesale Distribution:	General	1	1.53	2.2
Other		1	0.31	0.5
Unknown		5	2.78	4.1
		84	68.50	

¹ "Vacant" = land within (or within 1km of) settlements with a population of 2,000 or more which have the characteristics of urban vacant land, (e.g. unused, unsightly or land which would benefit from development).

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² "Derelict" = land (and buildings) which has been so damaged by development or use that it is incapable of development without rehabilitation or land which is not being used and where contamination is known or suspected. Any sites known or suspected to be contaminated must therefore be classified as derelict.

³ The definition of "contaminated" for the SVDLS relates to the presence of substances in the land and is not a risk-based, "suitable for use" approach as contained in the EPA 1990. The classification of a site as "contaminated" under the SVDLS does not mean that the site meets the definition of "contaminated land" under the EPA 1990.

Table 3 below gives an indication of the contamination status of the vacant and derelict land in the Scottish Borders. It can be seen that, under the definition of contaminated used in the SVDLS, thirteen sites were suspected to be contaminated and one had been tested and confirmed as such.

Table 3: Contamination Status of Vacant & Derelict Land in the Scottish Borders

Contamination Status	Total No.	Total Area
Tested & found to be contaminated	1	0.30
Suspected to be contaminated	12	14.34
Suspected not to be contaminated	45	27.26
Tested & found not to be contaminated	0	0
Unknown	26	26.54
	84	68.44

It should be noted, however, that the purpose of the SVDLS is not directly related to contamination and there is no requirement to test for the presence of contamination at vacant or derelict sites. Information on contamination is only presented where such information has been available through other sources.

Table 4 shows the spatial distribution of vacant and derelict sites among the largest settlements and shows that approximately 50% of the sites are in either Galashiels or Hawick while Selkirk accounts for a further 17% of sites. In terms of area, the two largest sites account for approximately 24% with Galashiels, Hawick and Selkirk accounting for a further 53%.

Table 4: Vacant and Derelict Sites by Settlement

Town	Sites	Area (ha)	Percentage of Sites	Percentage of Area
Coldstream	1	0.30	1.2%	0.4%
Duns	1	0.37	1.2%	0.5%
Earlston	3	1.40	3.6%	2.0%
Eyemouth	5	3.23	6.0%	4.7%
Galashiels	22	17.76	26.2%	25.9%
Gordon	1	6.10	1.2%	8.9%
Hawick	20	11.31	23.8%	16.5%
Innerleithen	5	2.92	6.0%	4.3%
Jedburgh	2	0.38	2.4%	0.6%
Kelso	3	0.84	3.6%	1.2%
Lauder	2	0.80	2.4%	1.2%
Peebles	4	5.64	4.8%	8.2%
Selkirk	14	7.35	16.7%	10.7%
St. Boswells	1	10.10	1.2%	14.7%

Table 5: Size of Vacant & Derelict Sites

Size	Sites	Area (ha)	%
0 - 0.49	47	11.0	16.1%
0.5 - 0.99	21	14.4	21.0%
1 – 1.49	6	6.9	10.1%
1.5 - 1.99	2	3.1	4.5%
2 - 2.99	4	9.3	13.6%
3 – 3.99	1	3.1	4.5%
4 – 4.99	1	4.5	6.6%
5 – 5.99	0	0	0.0%
6 – 6.99	1	6.1	8.9%
7 +	1	10.1	14.7%

As can be seen from Table 5, the vast majority of vacant and derelict sites in the Scottish Borders are relatively small. The minimum size of site which is able to be included in the survey is 0.1ha (10m x 10m). Of the 84 sites identified in the survey, 68 of the sites were of less than one hectare in size. This accounted for just over 37% of the total by area. The largest site was just over 10ha and represents almost 15% of the vacant and derelict land in the Scottish Borders. The average size of site was just 0.8ha.

COSLA FORMS



$FORM\ A\$ - request for site-specific information from sepa

ROUTINE / URGENT (DELETE AS APPROPRIATE)

SENT FROM LA: Scottish Borders Council

Lifelong Care (Environmental Health Services)

Scottish Borders Council

Scott House

ADDRESS: Sprouston Road

Newtown St Boswells

Melrose TD6 0QD

CONTACT NAME:

TELEPHONE:

FAX:

E-MAIL:

DATE SENT:

SENT TO SEPA OFFICE:

SEPA CONTACT:

SITE DETAILS NAME:

ADDRESS:

LA REFERENCE:

LOCATION PLAN:

GRID REFERENCE:

SITE AREA (HA):

SEPA USE ONLY DATE OF RECEIPT:

COPIED TO:

DATE ENTERED ON DATABASE:

DATE OF RESPONSE:

CONTACT NAME:

ADDRESS:

DATE SENT:

FORM A (CONTINUED)

INFORMATION ALREADY KNOWN ABOUT THE SITE (REFER TO NOTES)				
Category	Information	Source		
Site Owner(s):				
Site Occupier(s):				
Former site use(s):				
Current site use(s):				
Potential contaminants:				
Contamination source(s):				
Potential Pathways:				
Potential Receptors:				

FORM A (CONTINUED)

INFORMATION REQUESTED FROM S (PLEASE TICK)	FOR SEPA USE ONLY	
Regulatory history (spills, accidents etc.)		
Licences in force at the site		
Surface water quality information		
Groundwater quality information		
Closed landfill site information (landfill gas, borehole data, hydraulic gradients etc.)		
Hydrogeological conditions (water levels and flow)		
Nearby surface water courses		
Known abstractions for public drinking water supply and irrigation		
Any Risk Assessments conducted, including site investigations and modelling at site or adjacent sites		
Any remedial work undertaken		
Any other information (please specify)		



$FORM \ B \ \ \text{-} \ \text{record of land identified as contaminated}$

SENT FROM LA: Scottish Borders Council

Lifelong Care (Environmental Health Services)

Scottish Borders Council

Scott House

ADDRESS: Sprouston Road

Newtown St Boswells

Melrose TD6 0QD

CONTACT NAME:

TELEPHONE:

FAX:
E-MAIL:
DATE SENT:

SENT TO SEPA OFFICE:

SEPA CONTACT:

SITE DETAILS NAME:

ADDRESS:

LA REFERENCE: LOCATION PLAN: GRID REFERENCE: SITE AREA (HA):

SEPA USE ONLY DATE OF RECEIPT:

COPIED TO:

DATE ENTERED ON DATABASE:

SEPA REFERENCE:

FORM B (CONTINUED)

SITE DETAILS				
	Current Use & Dates	Previous Use & Dates (1)	Previous Use & Dates (2)	Previous Use & Dates (3)
Site Owner(s)				
Site Occupier(s)				
Appropriate Person(s)				
Former Site use(s)				
Current Site Use(s)				
Classification (see notes)				

FORM B (CONTINUED)

	BASIS ON WHICH	IDENTIFIED AS	CONTAMINATED	
	Number of Pollutant Linkage(s) Identified =			
	Linkage 1	Linkage 2	Linkage 3	
Contaminants				
Pathway identified				
Receptor identified				
Site Investigation/risk assessment reports and other documents available				
Brief statement on grounds for determination				



$FORM\ C$ - record of land designated as a special site

MUST ACCOMPANY FORM B IF NECESSARY OR COPY OF FIRST PAGE FROM FORM B IF FORWARDED AT A LATER DATE

Basis on which a Special Site (Please tick and Provide Further Information)				
Regulation			List Evidence Provided (attach details of evidence to form)	
Reg 3(a)	Land affecting water used as drinking water			
Reg 3(b)	Land resulting in classification criteria not being met			
Reg 3(c)	Land resulting in Schedule 1 substances entering strata specified in Reg.3(c)(ii)			
Reg 2(1)(b)	Land contaminated by waste acid tars			
Reg 2(1)(c)	Land associated with the purification/ refining of petroleum or the manufacture/processing of explosives			
Reg 2(1)(d)	Land on which a process prescribed for central control has been/is carried out			
Reg 2(1)(e)	Land within a nuclear site			
Reg 2(1)(f)	Land owned or occupied by a defence organisation and used for defence purposes			
Reg 2(1)(g)	Land associated with manufacture, production or disposal of chemical or biological weapons			
Reg 2(1)(h)	Land contaminated by virtue of substances escaping from a special site			

DRAFT PROPOSALS FOR A STATE OF CONTAMINATED LAND REPORT

Aims of the Report

The aims of the report are as follows:

- ⇒ to compile information on the general nature, extent and distribution of land identified as contaminated under Part IIA;
- ⇒ to assess the scale of the environmental impact of contaminated land and highlight where Part IIA is reducing this impact;
- ⇒ to summarise regulatory activity under Part IIA, in particular identification and remediation of contaminated land; and
- ⇒ to assess the effectiveness of Part IIA in addressing contaminated land, in particular the impact of the reasonableness and hardship provisions on remediation.

The report will focus on the three key stages of Part IIA: inspection strategies; the identification of contaminated land; and the remediation of contaminated. The emphasis on each stage will obviously vary for each report issued. Information will be presented as highlighted below for the individual stages.

Local Authority Inspection Strategies

Information obtained from published inspection strategies, subject to finalisation of the inspection strategy guidance, reported for each local authority:

- 1. date of publication of the strategy
- 2. date of proposed review of strategy
- 3. brief description of local authority area
- 4. information to be collected and organisations to be contacted
- 5. management of information
- 6. basis of prioritising sites for detailed assessment
- 7. timescales for inspection of sites

Land Identified as Contaminated

Information obtained from written records of determination, reported as total numbers and broken down per local authority:

- 1. date of notice
- 2. potential appropriate persons (causer, knowing permitter, current owner, previous owner, current occupier, previous occupier, trustee, other, none)
- 3. area of contaminated land
- 4. basis on which identified as contaminated (harm/pollution of controlled waters)
- 5. source of contamination (activity)
- 6. form of contamination (dissipated in soil, NAPL, discrete phase, present in tank etc.)
- 7. the contaminants present (chemical name)
- 8. pathway/s (soil, air, groundwater, surface water, foodchain)
- 9. receptor/s (humans, ecosystems, property, controlled waters)
- 10. number of pollutant linkages identified
- 11. current site use (residential, residential with gardens, commercial/industrial, parks/playingfields/open spaces and allotment gardens)
- 12. previous site use (residential, residential with gardens, commercial/industrial, parks/playing fields/open spaces and allotment gardens)

In addition, sites designated as special sites will be highlighted, with reference to the regulation which resulted in them being a special site.

Site Remediation

Information obtained from remediation notices, statements and declarations, reported as total numbers and broken down by enforcing authority:

- 1. date identified as contaminated
- 2. whether remediation notice, declaration or statement
- 3. whether replaces another remediation notice, declaration or statement
- 4. reason for issue (agreed remediation, EF uses powers, no remediation possible, remediation required)
- 5. date issued
- 6. whether urgent action taken (Y/N)
- 7. whether the notice/statement/declaration relates to an orphan site (Y/N)
- 8. whether assessment action taken (Y/N)
- 9. remediation objective (reduce concentration, break pathway, remove receptor)
- 10. remedial treatment actions: brief details
- 11. whether monitoring action taken (Y/N)
- 12. class of appropriate person (A/B/none)
- 13. nature of appropriate person (causer, knowing permitter, current owner, previous owner, current occupier, previous occupier, trustee, other, none)
- 14. time period for remediation (0-1 year, 1-5 years, 5 10 years, >10 years)
- 15. time after notice served/ statement issued, remediation commencing
- 16. receptor/s addressed by remediation notice/ statement
- 17. receptor/s excluded (human health, ecosystems, property, controlled waters)
- 18. basis on which remediation excluded (no liability, excessive cost, hardship, not serious)
- 19. number of pollutant linkages to be addressed
- 20. number of pollutant linkages to be excluded

Additional information is desirable in relation to remediation notices and statements to gain information on actual remediation undertaken:

- 21. whether work was undertaken by enforcing authority and the reasons why it was undertaken (imminent danger, written agreement, notice not complied with, precluded remediation, cost not recoverable, no appropriate person, authority is appropriate person)
- 22. whether costs were recovered for work undertaken by an enforcing authority
- 23. whether appeals were made against remediation notices served and the outcome
- 24. whether notifications of claimed remediation were received
- 25. whether remedial activity was completed or the requirements were met

Additional Information Supplied on a Voluntary Basis

Where available, the following information will be broken down by local authority to provide an indication of the effort involved in identifying land as contaminated under Part IIA and the percentage of sites considered which were found to be statutorily contaminated.

- 1. number of sites considered which were found not to be statutorily contaminated i.e. no pollutant linkage
- 2. number of sites considered which required a desk study to be conducted for the purposes of Part IIA
- 3. number of sites considered which required a site visit to be carried out for the purposes of Part IIA
- 4. number of sites considered which required an intrusive site investigation to be carried out for the purposes of Part IIA

Note: These are draft proposals for a "State of Contaminated Land Report" which were issued by SEPA to local authorities to aid their data management under Part IIA. This list is subject to change prior to the preparation of the first report by SEPA.

STATUTORY & NON-STATUTORY CONSULTEES

Scottish Executive

Environment Protection Unit

Victoria Quay

Edinburgh

EH6 6QQ

Scottish Environment Protection Agency (*)

Clearwater House

Heriot Watt Research Park

Avenue North

Riccarton

Edinburgh

EH14 4AP

Scottish Environment Protection Agency

Burnbrae

Mossilee Road

Galashiels

TD1 1NF

Historic Scotland

Longmore House

Salisbury Place

Edinburgh

EH9 1SH

Food Standards Agency

Contaminants Division

St Magnus House

6th Floor

25 Guild Street

Aberdeen

AB11 6NJ

Environment Agency (*)

North West Region

Ghyll Mount

Gillian Way

Junction 40 Business Park

Penrith

Cumbria

CA11 9BP

Scottish Natural Heritage

Anderson's Chambers

Market Street

Galashiels

TD1 3AF

Scottish Enterprise Borders

Bridge Street

Galashiels

TD1 1SW

Borders Health Board

Public Health

Rushbank

Newstead Melrose

TD6 9DB

Environment Agency (*)

North East Region

Tyneside House

Skinnerburn Road

Newcastle upon Tyne

Tyne and Wear

NE4 7AR

Neighbouring Local Authorities (Scotland)

East Lothian Council (*)

Environment & Technical Services

John Muir House

Haddington

East Lothian

EH41 3HA

West Lothian Council (*)

County Building

High Street

Linlithgow

EH49 7EZ

Midlothian Council (*)

Fairfield House

8 Lothian Road

Dalkeith

Midlothian

EH22 3AA

South Lanarkshire Council (*)

Athol House

Churchill Avenue

East Kilbride

G74 1AB

City of Edinburgh Council (*)

Chesser House

500 Gorgie Road

Edinburgh

EH11 3YJ

Dumfries & Galloway Council (*)

Department of Environment & Infrastructure

Council Offices

Rae Street

Dumfries

DG1 1LW

Neighbouring Local Authorities (England)

Carlisle City Council (*)

Civic Centre Rickergate

Carlisle CA3 8QG

Tynedale District Council (*)

Hexham House

Hexham

Northumberland

NE46 3NH

Alnwick District Council (*)

Environmental Health Division

Allerburn House

Alnwick

Northumberland

NE66 1YY

Berwick-upon-Tweed Borough Council (*)

Council Offices

Berwick-upon-Tweed

Northumberland

TD15 1ED

Note: Organisations marked with an asterisk (*) indicate locations where a Contaminated Land Register is held.

SCOTTISH BORDERS COUNCIL FINALISED STRUCTURE PLAN 2001 CONTAMINATED LAND POLICY

Contaminated Land

- 6.36 From July 2000, Scottish local authorities have new duties and powers under Part IIA of the Environmental Protection Act 1990 in relation to the identification and remediation of land that is not suitable for its current use owing to the presence of contamination. The Scottish Executive identifies the planning system as fulfilling a vital role in ensuring that land is suitable for new uses as planning consents are granted.
- 6.37 The definition of contaminated land under the legislation is complex and will mean, in practice, that some sites will not be 'contaminated' within the provisions of the Act yet will still require remediation before they can be developed. In accordance with the strategy to support development of vacant, derelict and brownfield sites, Local Plans can create opportunities for site redevelopment where contamination is a problem and where remediation would not otherwise take place.

POLICY I18

Contaminated Land

The Council will encourage and seek to facilitate the redevelopment of contaminated sites in accordance with Part IIA of the Environmental Protection Act 1990.

Source: Scottish Borders Council Finalised Structure Plan 2001, p86

REFERENCES

Environment Act 1995

Environmental Protection Act 1990

Contaminated Land (Scotland) Regulations 2000

Environment Act 1995 (Commencement No. 17 and Savings Provision) (Scotland) Order 2000

British Geological Survey (1998) "Hydrogeological Map of Scotland (1:625,000)" Nottingham

British Geological Survey (1995) "Groundwater Vulnerability Map of Scotland (1:625,000)"

Nottingham

British Geological Survey & Environment Agency (2000) "Some Guidance on the use of Digital Environmental Data" BGS Nottingham

British Standards Institute (2001) "Investigation of Potentially Contaminated Sites - Code of Practice (BS10175:2001)" BSI London

Department of the Environment (1994) "CLR 2: Guidance on Preliminary Site Inspection of Contaminated Land (2 Volumes)" DoE London

Department of the Environment (1994) "CLR3: Documentary Research on Industrial Sites"

DoE London

Department of the Environment (1995) "CLR 6: Prioritisation and Categorisation Procedure for Sites which may be Contaminated" DoE London

Greig D.C. et al (1971) "British Regional Geology: The South of Scotland (3rd Edition)" BGS
Nottingham

Hellawell T. (2000) "Blackstone's Guide to Contaminated Land" Blackstone Press London

Scottish Borders Council (1997) "Early Settlers in the Borders" SBC Newtown St Boswells

Scottish Borders Council (1999) "Scottish Borders Council Corporate Plan: 1999-2002" SBC Newtown St Boswells

Scottish Borders Council (1999) "Scottish Borders in Figures 1999-2000" SBC
Newtown St Boswells

Scottish Borders Council (2001) "Scottish Borders Community Plan: Borders 2010" SBC
Newtown St Boswells

Scottish Borders Council (2001) "The Scottish Borders: The New Way Forward - Finalised Structure Plan" SBC Newtown St Boswells

Scottish Environment Protection Agency (2000) "Contaminated Land Provisions: An Overview of Part IIA for Appropriate Persons" SEPA Stirling

Scottish Environment Protection Agency (2000) "Framework for Local Authority - SEPA Liaison under Part IIA of the Environmental Protection Act 1990 (Contaminated Land)" SEPA Stirling

Scottish Environment Protection Agency (2000) "SEPA's Approach to Considering Pollution of Controlled Waters Arising from Contaminated Land" SEPA Stirling

Appendix 16: References

Scottish Executive Rural Affairs Department (2000) "Circular 1/2000 - Environmental Protection Act 1990: Part IIA (Contaminated Land)" Scottish Executive Edinburgh

Scottish Executive (2000) "Agricultural Census: June 2000" Scottish Executive Edinburgh

Scottish Executive (2000) "Planning Advice Note 33: Development of Contaminated Land" Scottish Executive Edinburgh

Scottish Executive (2001) "Contaminated Land Inspection Strategies: Advice for Scottish Local Authorities" Scottish Executive Edinburgh

Scottish Natural Heritage & British Geological Survey (1997) "East Lothian and the Borders: A Landscape Fashioned by Geology" SNH Perth

Scottish Natural Heritage (2000) "Facts and Figures 1999/2000" SNH Perth

Scottish Office (1991) "Public Registers of Land which may be Contaminated (A Consultation Paper)" Scottish Office Edinburgh

Scottish Office (1993) "News Release 0442/93: Review of Contaminated Land" Edinburgh

SNIFFER (1999) "Communicating Understanding of Contaminated Land Risks"

Syms P. (1999) "Desk Reference Guide to Potentially Contaminative Land Uses"

ISVA / RICS / CIEH London

Websites (as at 05/09/01)

Home Page		http://www.scotland-leg	gislation.hmso.gov.uk		
	EA 1995		http://www.legislation.hmso.gov.uk/acts/acts1990/Ukpga 19900043 en 1.htm		
HMSO EPA 1990 Regulation		0	http://www.legislation.hmso.gov.uk/acts/acts1995/Ukpga 19950025 en 1.htm		
		ons	http://www.scotland-legislation.hmso.gov.uk/legislation/scotland/ssi2000/20000178.htm		
	Order		http://www.scotland-leg	gislation.hmso.gov.uk/legislation/scotland/ssi2000/20000180.htm	
		I			
			me Page	http://www.scotland.gov.uk	
			ss Release (14/07/00)	http://www.scotland.gov.uk/news/2000/07/se2030.asp	
Scottish E	xecutive		eular 1/2000	http://www.scotland.gov.uk/library3/environment/clc-00.asp	
			DLS 2000	http://www.scotland.gov.uk/stats/bulletins/00066-00.asp	
		PAI	N 33	http://www.scotland.gov.uk/library/pan/pan33-00.asp	
		Stra	tegy Advice	http://www.scotland.gov.uk/library3/environment/clis-00.asp	
		Нот	me Page	http://www.sepa.org.uk	
SEPA			taminated Land Pages	http://www.sepa.org.uk/contaminated-land/index.htm	
		Cor	tumuted Land Lages	mep.//www.sepa.org.un/concumulated rand/mack.mm	
Environment Agency		Hor	ne Page	http://www.environment-agency.gov.uk/	
DEEDA	DEFRA		ne Page	http://www.defra.gov.uk	
DEFKA			taminated Land Pages	http://www.defra.gov.uk/environment/landliability/index.htm	
		G''	CEP 1 1		
			of Edinburgh	http://www.edinburgh.gov.uk	
			nfries & Galloway	http://www.dumgal.gov.uk/dumgal/dgchome.asp	
			t Lothian	http://www.eastlothian.gov.uk	
	Adjoining Local		llothian	http://www.midlothian.gov.uk/default.asp	
			th Lanarkshire	http://www.southlanarkshire.gov.uk/index.htm	
Authorities	es		st Lothian	http://www.wlonline.org/main/frames~4~24~0.htm	
			wick	http://www.alnwick.gov.uk	
			wick-upon-Tweed	http://www.berwick-upon-tweed.gov.uk	
		Car	lisle City	http://www.carlisle-city.gov.uk	
		Tyn	edale	http://www.tynedale.gov.uk	
Scottish B	orders Co	uncil		http://www.scotborders.gov.uk	
Scottish D		unci	•	mtp.// www.scotootdots.gov.dx	

This Strategy is also available on the Scottish	http://www.scotborders.gov.uk/contaminated-land
Borders Council Website	http://www.scotborders.gov.uk/contaminated-land



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Further copies of this document are available from Scottish Borders Council at the address below.

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