

# **CONTAMINATED LAND STRATEGY**

## **FOREWORD**

In July 2000 a new legal framework was brought into force in Scotland.

The aim of this framework is to tackle the legacy of contaminated land left as a result of our industrial development over the years.

This document has been prepared to meet the requirements laid down by the Scottish Executive to tackle the issue of contaminated land in a strategic manner.

It outlines Clackmannanshire Council's commitment and policies towards the issue of contaminated land and the long term goal of working towards sustainable development and enhancing environmental quality.

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## **Chapter 1: Introduction**

### General Policy of the Local Authority

- The Council's corporate mission is
  - “To build a strong community, help individuals and protect and enhance the environment”**
  
- To support this mission, The Development and Environmental Services Department of Clackmannanshire Council aims
  - “To work towards sustainable development in Clackmannanshire through policies and the provision of services that facilitate positive social and economic development whilst maintaining and enhancing environmental quality”**
  
- The key themes of this approach are
  - Caring for the Environment
  - Enriching peoples lives
  - Promoting Sustainable Development
  
- The main cross cutting objective of these themes is sustainable development. This principle will be adopted in all aspects of the Development and Environmental Services Department in order to provide a sustainable future within Clackmannanshire.
  
- In order to achieve the themes outlined, the service will seek to provide a quality service based on the following principles
  - Working with Partners
  - Operating in a customer accused way
  - Being open and accountable
  - Wise use of public funds
  - Developing and Involving staff.
  
- The Development and Environmental Services Department will be responsible for the enforcement of Part 11a of The Environmental Protection Act 1990 within Clackmannanshire except where land is designated a “special site”.
  
- As enforcing authority the Service will actively seek voluntary remediation of sites prior to use of enforcement action. However remediation notices, specifying action required, will be employed if required.

## **Regulatory Context**

### **Role of Local Authorities**

**The primary regulatory role under Part IIA rests with Scottish local authorities.**

This reflects their existing statutory functions relating to Environmental Protection, Statutory Nuisance Control, Planning and Building Control. In outline, the role of these authorities under Part IIA will be:

- (a) to cause their areas be to be inspected to identify contaminated land;
- (b) to determine whether any particular site is contaminated land;
- (c) to act as enforcing authority for all contaminated land which is not designed as a “special site” (SEPA will be the enforcing authority for special sites).

The enforcing authorities will have four main tasks:

- (a) to establish who should bear responsibility for the remediation of the land (the “appropriate person” or persons);
- (b) to decide, after consultation with the appropriate person, the landowner and SEPA, what remediation is required in any individual case and to ensure that such remediation takes place, either through agreement with the appropriate person, or by serving a remediation notice on the appropriate person if agreement is not possible or, in certain circumstances, through carrying out the work themselves;
- (c) where a remediation notice is served, or the authority itself carried out the work, to determine who should bear what proportion of the liability for meeting the costs of the work; and
- (d) to record certain prescribed information about their regulatory actions on a public register.

### **Roles of SEPA**

SEPA will have four principal roles with respect to contaminated land under Part IIA. It will:

- (a) assist local authorities in identifying contaminated land, particularly in cases where water pollution is involved, by providing information and responding to consultations on pollution of controlled waters;

- (b) provide site-specific guidance to local authorities on the remediation of contaminated land;
- (c) act as the “enforcing authority” for any land designated as a “special site” (the descriptions of land which are required to be designated in this way are prescribed in the Regulations); and
- (d) publish periodic reports on contaminated land.

### **Definition of Contaminated Land**

Section 78A(2) defines CONTAMINATED LAND for the purposes of Part IIA as:

“any land which appears to the LOCAL AUTHORITY in whose area it is situated to be in such a condition, by reason of substances in, on or under the land, that: -

- “(a) SIGNIFICANT HARM is being caused or there is a SIGNIFICANT POSSIBILITY of such harm being caused; or
- “(b) POLLUTION OF CONTROLLED WATERS is being, or is likely to be, caused”.

This definition reflects the intended role of the Part IIA regime, which is to enable the identification and remediation of land on which contamination is causing unacceptable risks to human health or the wider environment. It does not necessarily include all land where contamination is present, even though such contamination may be relevant in the context of other regimes.

### **Principles of Pollution Linkages**

The definition of contaminated land uses the terms ‘significant harm’ and ‘significant possibility’ of harm being caused. The local authority is required to act in accordance with statutory guidance issued by Scottish Executive in determining what is ‘significant’.

Before a Local Authority can designate any land as contaminated land on the basis of ‘significant harm’ being caused, or the ‘significant possibility’ of harm being caused, the authority must therefore identify a significant pollutant linkage. To establish this, the following must be identified:

- (a) 

<p><b>A contaminant: and</b></p> <p>This is a substance which is in, on or under the land and which has the potential to cause harm or to cause pollution of controlled waters.</p>
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(b)

**A receptor; and**

This is either

- (i) a living organism, a group of living organisms, an ecological system or a piece of property (as defined)
- (ii) controlled waters which are being, or could be, polluted by a contaminant.

(c)

**A pathway by means of which either**

- (i) that contaminant is causing significant harm to that receptor, or
- (ii) there is a significant possibility of such harm being caused by that contaminant to that receptor

A pathway is defined as one or more routes or means by, or through, which a receptor:

- (a) is being exposed to, or affected by, a contaminant, or
- (b) could be so exposed or affected.

### **The Seriousness of Harm or of Pollution of Controlled Waters**

When evaluating the seriousness of any significant harm, for the purpose of assessing the reasonableness of any remediation, the enforcing authority should consider: -

- (a) whether the significant harm is already caused;
- (b) the degree of the possibility of the significant harm being caused;
- (c) the nature of the significant harm with respect, in particular, to:
  - (i) the nature and importance of the receptor,
  - (ii) the extent and type of any effects on that receptor of the significant harm,
  - (iii) the number of receptors which might be affected, and
  - (iv) whether the effects would be irreversible; and
- (d) the context in which the effects might occur, in particular:
  - (i) whether the receptor has already been damaged by other means and, if so, whether further effects resulting from the harm would materially affect its condition, and
  - (ii) the relative risk associated with the harm in the context of wider environmental risks.

Where the significant harm is an “ecological system effect” as defined in Chapter A, the enforcing authority should take into account any advice received from Scottish Natural Heritage.

In evaluating for this purpose the seriousness of any pollution of controlled waters, the enforcing authority should consider:

- (a) whether the pollution of controlled waters is already being caused;
- (b) the likelihood of the pollution of controlled waters being caused;
- (c) the nature of the pollution of controlled waters involved with respect, in particular, to:
  - (i) the nature and importance of the controlled waters which might be affected;
  - (ii) the extent of the effects of the actual or likely pollution on those controlled waters, and
  - (iii) whether such effects would be irreversible; and
- (d) the context in which the effects might occur, in particular:
  - (i) whether the waters have already been polluted by other means, if so, whether further effects resulting from the water pollution would materially affect their condition, and
  - (ii) the relative risk associated with the water pollution in the context of wider environmental risks.

Where the enforcing authority is the local authority, it should take into account any advice received from SEPA when it is considering the seriousness of any pollution of controlled waters.

### **Suitable for Use**

The suitable for use approach is considered the most appropriate way of dealing with the legacy of historical contamination. This approach focuses on the risk associated with land contamination and recognises that they will vary greatly according to site specific conditions.

There are three elements to this: -

- (a) ensuring that land is suitable for current use: this is the role of Scottish Local Authorities and SEPA in terms of Part IIa of the Environmental Protection Act 1990 as amended;

- (b) ensure that land is made suitable for any new use, as planning permission is given for that new use. This is the role of town and country planning and building control regimes; and
- (c) limiting requirements for remediation to work necessary to prevent unacceptable risks to human health to current or future use of the land for which planning permission is sought.

### **PAN 33 – Development of Contaminated Land**

Contamination is a material consideration under the planning and development control regime. This document is the principle mechanism for ensuring that land is made suitable for use for any proposed new development.

The document sets out the basic principles to be followed in terms of site risk assessment and remediation. Typically, planning consent conditions can be used to ensure adequate steps are taken to remediate sites prior to development.

It must be stressed, however, that the aim of the planning system is to ensure that land is suitable for proposed development and use, whereas the statutory regime under Part IIa requires land to be suitable for its current use.

### **Objectives of Strategy Document**

- To comply with the requirements of The Scottish Executive document “Contaminated Land Inspection Strategies: Advice for Local Authorities 2001”.
- To discharge the authorities duty under Part IIa of The Environmental Protection Act 1990.
- To provide a documented protocol for dealing with issues relating to contaminated land in a manner that is open and accountable to all stakeholders.
- To achieve progress in the handling of contaminated land within the objectives and themes specified by The Development and Environmental Services Department aims.
- To secure human health where, a threat to such is identified, and to improve land considered contaminated in order that it can be considered “suitable for use”.
- To provide a framework for measuring progress and to enable information of that progress to be collated by SEPA.
- To provide a basis for information to be collected for the Public Register.



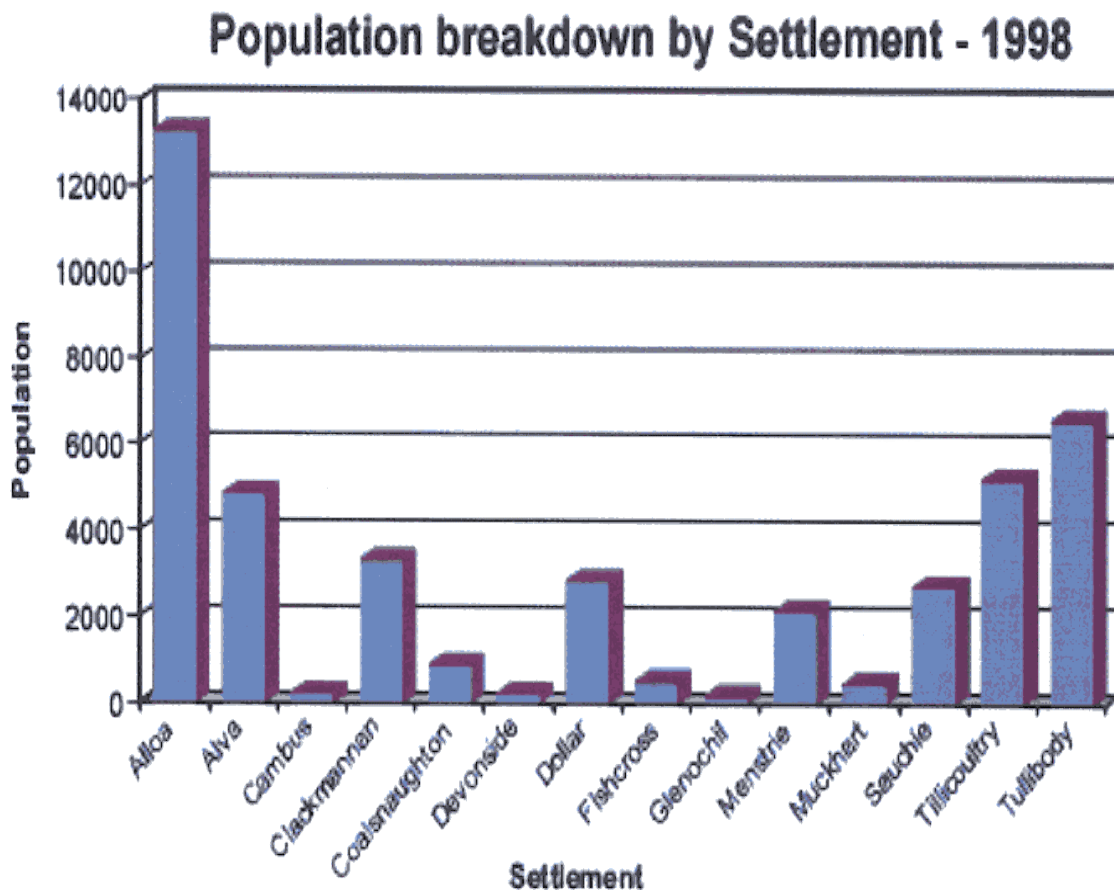
## **Chapter 2: Characteristics of Clackmannanshire**

Clackmannanshire District lies in the centre of Scotland. Bounded by the Ochil Hills to the north and the River Forth to the south, the district comprises a number of small towns and villages.

The district is the smallest in Scotland with a population around 48,000 people covering 15,662 hectares. Alloa with a population of around 13,000 people, remains the largest town in the district with the rest of the population spread throughout various small towns and villages.

### **Population Breakdown by Settlement - 1998**

The bar chart below gives the populations for every settlement in Clackmannanshire as of 1998. For the exact figures for each settlement, see the related table under the graph.



The table below gives the population of Clackmannanshire, broken down by settlement. Due to rounding error, the sum of each settlement may not mirror the given total.

<b>Settlement Population Estimates - 1998</b>		
<b>Settlement</b>	<b>Population</b>	<b>Percentage of Total Population (%)</b>
Alloa	13,300	27.3
Alva	48,58	10.0
Cambus	234	0.5
Clackmannan	3,331	6.8
Coalsnaughton	923	1.9
Devonside	256	0.5
Dollar	2,858	5.9
Fishcross	546	1.1
Glenochil	206	0.4
Menstrie	2,157	4.4
Muckhart	500	1.0
Sauchie	2,739	11.8
Tillicoultry	5,216	10.7
Tullibody	6,582	13.5
<b>Total</b>	<b>48,560</b>	<b>100%</b>

The district has a considerable industrial heritage which bounds a number of traditional industries – mining, shipbuilding, textile manufacture, engineering, food production, brewing and agriculture.

At this time, many of the traditional industries are being replaced and newer service orientated businesses are appearing within the boundaries of Clackmannanshire. There remains, however, industries linked to the industrial heritage of the district which continue to thrive. Thus the district can be seen in a transitional economic phase but with a heritage which indicates previous contaminative use throughout the various towns and villages that make up Clackmannanshire.

Although small in size, Clackmannanshire contains a wide variety of protected locations. These include Ancient Woodlands, Areas of Great Landscape Value, Local Nature Reserves, SSSIs and other wildlife sites. These sites are identified in the Council development plans – structural and local – and significant development controls exist on any activities that may undermine the value of these sites.

The Council also has a number of key property types including Scheduled Ancient Monuments, Outstanding conservation areas and listed buildings. These properties are scattered throughout both the urban and rural parts of the district but are also subject to strict controls when involved in the development process.

Clackmannanshire is supplied with water from two sources. The main supply to the district is through Loch Turret which is located outside the boundary of the authority. However, this supply is supplemented by water from Gartmorn Dam which is located within the boundary of Clackmannanshire. There are also a number of private supplies within the District which are closely monitored by the Development and Environmental Services Department.

Whilst the bulk of these supplies exist in the North West of the district, a number of springs have been used to provide water for food manufacture within Clackmannanshire particularly brewing. Whilst this activity has largely ceased within the district the water supply remains available and apparently palatable.

There is, as previously mentioned, a considerable industrial heritage in Clackmannanshire. A previous study in 1985 collated, documented and identified a number of potential contaminated sites using archived material together with information gleaned from various departments with both Clackmannan District Council and Central Regional Council. Together with the recent acquisition of an appropriate historical land use database, the basis for a framework in assessing contaminated land in Clackmannanshire Council clearly exists.

The broad geological characteristics of the district reflects the geographical location of Clackmannanshire. Bordered on the northern side of the district by the Ochil Hills, the district lies in the Kincardine Basin. The Ochils are the oldest strata in Clackmannanshire consisting of mainly andesite and basaltic volcanic rocks. The Kincardine basin, in which the rest of the district lies, has solid geology that exhibits the varied marine conditions that existed throughout much of Europe during earlier epochs. The lower strata consists of coarse sandstones, mudstones and siltstones. Above this, the Passage group consisting of coarse grained sandstone and clayrocks have been deposited. This outcrops in two significant areas – in the west from Menstrie to Alloa and the east from Dollar to the boundary of Clackmannanshire.

Through the North South intersection of the district there has been considerable deposition of coal measures – Upper, Middle and Lower. These measures dominate in the Sauchie and Coalsnaughton area of the district and have been widely mined throughout history.

These carboniferous rocks have, however, been intruded throughout history. Earth movements culminated in the folding and faulting towards the end of the Carboniferous period with the largest fault running through the Ochils – the Ochil fault. Numerous other smaller west east faults were also cut through the solid geology and in some cases resulted in uplift of the Carboniferous rocks with subsequent reddening and oxidisation.

The drift geology also exhibits a considerable distinction between the Ochil Hills and the rest of the district. The Ochils consist mainly of bedrock with small areas of peat at higher levels with some glacial drainage channels mainly confined to the northern side.

The rest of the district exhibits evidence of coastal and marine sedimentation and erosion. The western side of the district carries a heavy band of post glacial beach deposits and alluvium which travels along the border of the Ochil Hills encompassing Alva. This broad band also travels across the Forth Estuary on the Clackmannanshire boundary providing similar drift characteristics in Alloa. Intersecting this band of alluvium, is a large band of boulder clay which reaches from the far west of the district and covers areas such as Sauchie and parts of the Tullibody. Whilst these two bands of differing geology cover the most land areas of the district, there are areas of river terrace alluvium, sands and gravel particularly in the Dollar and Tillicoultry areas of the district.

Given the relative scale of both drift and solid geology together with the historical industrial development of brewing, it is clear that suitable hydrogeological conditions exist for the extraction of water for use.

Surface water catchments in the district are the Devon, Black Devon and Upper Forth Estuary. The quality of these waters is generally good although there is some local variation. There are no designated bathing or shellfish waters within the District. Historical sources of contamination have been associated with industrial development such as mining and contamination from the farming industry.

Little information is currently held about groundwater quality and its current usages. It is likely, however, that groundwater present in areas previously mined will have been adversely affected in terms of quality.

The district has no areas of highly permeable strata. The Ochils are weakly permeable due to their igneous nature but do have some small springs which have been used as private water supplies. The low lying areas of the district appear to be underlain by moderately permeable strata with the most productive area being the Passage group which consists mostly of sandstones, mudstones and thin limestones at base. These outcrop in areas previously identified.

There are, as previously identified, significant areas of alluvial deposits as well as sand/gravel deposits around Dollar. Both of these areas will be sensitive to pollution and subsequent contamination of groundwater. The rest of the area is underlain by boulder clay and associated marine alluvium. These are not considered to be as significant in terms of pollution and subsequent contamination.

As with most districts, Clackmannanshire has seen considerable change over the years. Many of the significantly contaminated sites have also received remediation including old town gas works, throughout the district, the Tullis Factory in Tullibody and the Old Burgh Yard in Dollar. The Council holds many records and archives relating to numerous sites throughout the district which have previous contaminative use.

Together with the acquisition of a historical land use database, it is anticipated that a detailed picture of the full implications of Part IIa of the Environmental Protection Act 1990 will be achieved over a relatively short timescale.

### **Chapter 3: Local Authority Strategy: Overall Aims**

The statutory guidance issued required that the strategic approach should:

- (a) be rational, ordered and efficient;
- (b) proportionate to the seriousness of any actual or potential risk;
- (c) seek to ensure that the most pressing and serious problems are located first;
- (d) ensure that resources are concentrated on investigating in areas where the authority is most likely to identify contaminated land; and
- (e) ensure that the local authority efficiently identifies requirements for the detailed inspection of particular areas of land.

In developing this strategic approach the local authority should reflect local circumstances. In particular it should consider:

- (a) any available evidence that significant harm or pollution of controlled waters is actually being caused;
- (b) the extent to which any receptor is likely to be found in any of the different parts of the authority's area;
- (c) the extent to which any of those receptors is likely to be exposed to a contaminate for example as a result of the use of the land or of the geological and hydrological features of the area;
- (d) the extent to which information on land contamination is already available;
- (e) the history, scale and nature of industrial or other activities which may have contaminated the land in different parts of its area;
- (f) the nature and timing of past redevelopment in different parts of its area;
- (g) the extent to which remedial action has already been taken by the authority or others to deal with land-contamination
- (h) the extent to which other regulatory authorities are likely to be considering the possibility of harm being caused to particular receptors or the likelihood of any pollution of controlled waters being caused in particular parts of the local authority's area.

This strategy document has been developed to meet the requirements set out in Part II a and the statutory guidance. Particular reference has been made to "Contaminated Land Inspection Strategies: Advice for Local Authorities" issued by the Scottish Executive Environmental Group in August 2000.

In reflecting local circumstances, the Service intends to incorporate these details in its main timetable, as detailed in Section 4 of this document.

In particular:

- (a) 'Any available evidence that significant harm or pollution of controlled waters is actually being caused'

**Phase One – Assessment (Oct 2001 – Oct 2002)**

**Phase Two – Detailed Assessment (Jan 2003 – Dec 2003)**

- (b) 'the extent to which any receptor is likely to be found in any of the different parts of the Authority's area'

**Phase One – Assessment (Oct 2001 – Oct 2002)**

**Phase Two – Detailed Assessment (Jan 2003 – Dec 2003)**

- (c) 'The extent to which any of those receptors is likely to be exposed to a contaminant, for example, as a result of the use of the land or of the geological, and hydrological features of the area'

**Phase One – Assessment (Oct 2001 – October 2002)**

**Review (Nov 2002 – Dec 2002)**

**Phase Two – Detailed Assessment (Jan 2003 – Dec 2003)**

- (d) 'The extent to which information on land contamination is already available'

**Phase One – Assessment (Oct 2001 – Oct 2002)**

**Phase Two – Detailed Assessment (Jan 2003 – Dec 2003)**

- (e) 'The history, scale and nature of industrial or other activities which may have contaminated the land in different parts of its area'

**Phase One – Assessment (Oct 2001 – Oct 2002)**

**Phase Two – Detailed Assessment (Jan 2003 – Dec 2003)**

- (f) 'The nature and timing of past redevelopment in different parts of its area'

**Phase One – Assessment (Oct 2001 – Oct 2002)**

**Phase Two – Detailed Assessment (Jan 2003 – Dec 2003)**

- (g) 'The extent to which remedial action has already been taken by the Authority or others to deal with land contamination problems or is likely to be taken as part of an impending redevelopment'

**Phase One – Assessment (Oct 2001 – Oct 2002)**

**Phase Two – Detailed Assessment – (Jan 2003 – Dec 2003)**

- (h) 'The extent to which other regulatory authorities are likely to be considering the possibility of harm being caused to particular receptors or the likelihood of any pollution of controlled waters being caused in particular parts of the Local Authority's area'

**Phase One – Assessment (Oct 2001 – Oct 2002)**

**Review (Nov 2002 – Dec 2002)**

**Phase Two – Detailed Assessment (Jan 2003 – Dec 2003)**

**Phase Three – Inspection (Jan 2004 – Jan 2006)**



## **Chapter 4: Clackmannanshire Council Priorities**

In implementation of Part II(a) the Service proposes the following priorities:-

- to protect human health;
- To protect controlled waters;
- To protect designated ecosystems;
- To prevent further damage to property;
- To encourage re-use of brownfield sites.

The Authority will actively encourage the voluntary remediation of any land deemed or thought to be contaminated in terms of Part II(a).

However, at all stages in the inspection of their area, the Authority is required to act 'proportionate to the seriousness of any actual or potential risk' and remediation steps, voluntary or otherwise, will be based on risk, and significance and likelihood, as defined in the statutory guidance.

### **Preliminary Phase (Prior to October 2001)**

#### (a) Consultation

External consultation will be undertaken with SEPA, Scottish Natural Heritage, Historic Scotland, The Scottish Executive, The Food Safety Agency and the Local Enterprise body.

Internal consultation will be undertaken with all relevant Services prior to submission to the local elected members. It is also intended to present draft copies to all local Community Councils.

#### (b) Acquisition of Landmark Database

To assist in the process of investigation, the Service has acquired the landmark system which will be incorporated into the council's Geographical Information System (GIS).

This will enable the logging and mapping of potential contaminated sites and the establishment of a dataset for each potential contaminated site.

#### (c) Implementation

Once agreed in principle, the draft should be implemented and made available in the local Community Access Point as well as the Council's Website. Statutory consultees will receive an implemented copy as soon as practicable.

## **Phase One (October 2001 – October 2002) - Screening**

### (a) Briefing/Training of all relevant staff

It is anticipated that all Environmental Health staff potentially involved in the enforcement of the Contaminated Land Regs 2000 will be briefed and updated in the requirements of the strategy document and the handling of issues relating to contaminated land. Copies of relevant briefing papers will be made available to all other services, particularly Development Services, for their use.

It is hoped to provide each individual with a number of briefing papers relating to contaminated land as well as standardised operating protocols.

### (b) Preliminary Identification of Potential Contaminated Sites

Using the acquired database system, it is intended to identify the number of sites on a purely desktop exercise.

Each site will be formally and uniquely identified.

### (c) Development of Secure Data Storage

During this period development work will be undertaken on the internal computing system used by Environmental Services to incorporate a link to the GIS System.

This should enable the computerised holding of mapping data together with investigatory action details associated with each site. It should also enable the development of standard protocol and correspondence in dealing with each site.

### (d) Evaluation of existing Council Data

Having previously identified, on a purely desk top basis, a number of potential sites, the Service will then examine all paper based information held for each site.

It is anticipated that this evaluation will incorporate the vast majority of council held land and areas where the Council may be the “appropriate person”. It will also provide an opportunity for the examination of works previously done on contaminated sites and its suitability in respect of the current regime.

The Council has previously examined potential contaminated land and compiled a report in 1985. This report will provide an excellent framework for the paper based examination of current data held within the Council.

### **Review Phase (Nov 2002 – Dec 2002)**

It is anticipated that the Service will have acquired considerable data on a number of sites that may require further investigation.

During this period, each site will be assessed, based on risk assessment and available scientific documents, and prioritised according to the Council's priorities.

It is anticipated that this phase will provide

- (a) A list of prioritised sites suspected of being "contaminated land" as defined.
- (b) A list of sites with previous contaminative use which may not fall within the definition of "contaminated land" as defined.
- (c) A robust and secure data storage system able to hold and retrieve information pertaining to each site.

### **Phase Two: (Jan 2003 – Dec 2003) – Detailed Assessment**

Having now identified a number of prioritised sites from preliminary screening, the following more detailed investigations will occur:

- Establishment of sources, pathways and receptors including acquisition of information in detail.
- Assessment of data available.
- Attempt to establish a pollution linkage based on a conceptual model.
- Prioritisation of sites.
- Further review of current methodology and results obtained.
- Establish a list of known contacts within external organisations who can assist in the development of contaminated land policy including remediation.

### **Phase Three: Inspection (Jan 2004 – Jan 2006)**

- (a) Inspection will be based on:-
  - specified protocols outlined in the strategy document.
  - The Service priorities in relation to contaminated land.

- (b) It is expected that external specialised assistance may be required where complex issues relating to contaminated land are discovered. This is exceptionally difficult to anticipate and may lengthen the time scales involved in the investigation and remediation of contamination land.
- (c) It is anticipated that much of the initial inspection work will focus on the urban areas, given the Service priority to human health, gradually spreading outwards into rural parts of the district as time and resources dictate.
- (d) The Service is also considering out-sourcing a percentage of the inspection work to an approved and suitable competent external organisation.

This would run in tandem with the Council's inspection work and would ensure transparency in the Council's approach as well as assisting in the establishment of good working practice within the Service.

- (e) At the end of each year the Service will assess the success of the previous year's activities in relation to contaminated land.

It will also enable the Service to ensure that the necessary information is available and accountable for all actions taken in respect of sites. It will also assist in the collation of data for the presentation purposes to SEPA and the Scottish Executive as required.

- (f) At the end of January 2006, a total review of all actions taken will be undertaken.

This will evaluate the timescales identified within this document and the actions taken by the Service.

It will also identify those areas that remain to be actioned and what further work is required.

This timescale describes the general approach to be adopted by Clackmannanshire Council in respect of the investigation of sites which are potentially contaminated.

Whilst the Council will attempt to remain within this timetable, the nature of contaminated land issues mean that considerable flexibility is required as knowledge, information and resources change.

## **Chapter 5: Procedures**

### **5.1 Internal Management Arrangements**

Within Clackmannanshire Council, the Environmental & Development Services are responsible for the implementation of Part IIa of the Environmental Protection Act 1990.

The lead officer for the contaminated land issue is the Head of Amenity & Protective Services. Inspection and identification of land likely to be designated as contaminated land will be through the Safety, Health and Environment Team within the Service.

Prior to any designation of land as contaminated land in terms of Part IIa, consultation with the Council's Legal Services will be undertaken to ensure the legalities of any action taken.

Prior to designating any Council owned land or land where the Council is the "appropriate person" and may be liable for remediation, the elected members of the Council will be consulted.

#### **Development Control**

The vast majority of contaminated land issues are currently addressed through the development control regime where contamination is a material consideration.

This means that the planning system requires to consider contamination for strategic planning purposes (e.g. local and structure plans) and where granting planning permission for proposed development.

Whilst Part IIa places a duty on local authorities to address the issue of contaminated land, it is anticipated that the redevelopment of brownfield sites under the development control regime will remain a key method of addressing contamination. It should not be possible for land addressed through the planning regime to be 'contaminated land' within the meaning of Part IIa.

There will be a number of areas where Part IIa interacts with the planning regime: -

- (a) where land undergoing or about to undergo redevelopment could be defined as contaminated land under Part IIa;
- (b) where contaminated land has been identified but is already subject to redevelopment proposals, or the appropriate person decides to bring forward proposals to remediate land;
- (c) where remediation is carried out and the works themselves could be constituted 'development' and consequently require planning permission;

- (d) where remediation works have been carried out in context of redevelopment of a site.

It is anticipated that close liaison between Environmental Health staff and Planning officials will require to be maintained throughout the development of the strategy document to provide a consistent and effective response to the issue of contaminated land.

### Building Control

The Building Control Regulations 1991 can require measures to be taken to protect any buildings, and future occupants, against the potentially adverse effects of contamination.

### 5.2 Considering Local Authority Interests in Land

Investigation of Council owned land will follow the timetable identified in Chapter 4. Since the Council's priorities remain based on the threat to human health, it would appear inappropriate to differentiate between land owned by the Council and land owned by others.

- Contact will be made with the Service responsible for the land being examined and the reasons why.
- The Service responsible for the land will be requested to provide all relevant information on this land with reference to potential contamination.
- Full assessment and inspection of the land concerned will follow the timetable detailed and protocols established.
- Should concerns arise about the possibility that the land concerned falls within the scope of Part IIa of the Environmental Protection Act 1990, the Head of Service involved in the land concerned will be approached directly.

### 5.3 Information Collection

A number of potential sources of information have been examined and include

- The use of GIS as a means of logging details relating to sites and providing a unique means of identifying each site.
- Historical land use database – as described in Section 4 of this document. This enables the identification of previous contaminative land use and can be linked to the GIS.

- Geological maps – used to determine sources and pathways. These are also helpful in the identification of groundwater receptors.
- Council records – a number of different Council Services hold records relating to previous land use. An investigation in 1985 by Environmental Services resulted in the compilation of a report which will be used as part of the framework for site identification and investigation.

Examination of the Council records since 1985 will be undertaken and where necessary will be transferred to the contaminated land investigations as appropriate.

- Other Sources – these may include archives, complaints and comments from the public and relevant organisations as well as public registers held by the Authority

All information gleaned will be assessed according to the priorities of Clackmannanshire Council specified in Part 3. This information will also be used to identify in the broadest terms, the likelihood of actual harm, receptors available and the contaminants present.

#### 5.4 Information and Complaints

Any complaint received regarding contaminated land will be dealt with according to procedures currently established within the Service.

All complainants can expect

- Their complaint to be logged and recorded
- To be contacted by an officer regarding their complaint within one working day of receipt
- To be kept informed of progress
- To have their details kept confidential

Every effort will be made to resolve complaints quickly. There are, however, a number of issues that may need addressing prior to resolution and accordingly the timescale involved could be protracted. This will be explained to the complainant on initial contact, assessed on an individual basis.

The complaint will be logged in the computing system (FLARE) used by the Service. This complaint will be attached to the site in question and through that, to the GIS location. Accordingly it should be possible to create a complaints log for each site.

The Council will accept anonymously supplied information but will only act on this information where a significant issue has been identified. In this case,

suggestion of physical contamination, causing harm, new receptors or suggestion of a direct pollution linkage previous unknown are liable to result in investigation.

In general, the Council will only act in relation to contaminated land where robust scientific evidence is available. In many cases, this will rely on the knowledge and experience of the individual officer concerned where information is supplied.

## 5.5 Information Evaluation

- Evaluating information on actual harm or pollution.

Information pertaining to individual sites will be assessed on an individual basis using available scientific knowledge.

Chapter 7: Inspection Procedures outlines some of the key guidance that will be employed by the Council in this regard. However, as time passes and information and knowledge improves the Council will consider other relevant scientific guidance as it becomes available.

- Contaminant Sources v Receptors  
As above
- Effectiveness of previous actions or other regimes in preventing or dealing with contamination.

The contaminated land regime overlaps with other regulatory fields and accordingly liaison with relevant bodies will be necessary. In particular

### Water Pollution

Both formal and informal liaison with SEPA can be used to raise concerns about pollution. Within the contaminated land regime a formal agreement has been reached with SEPA to share information and assist in the production of annual statistics. This includes dealing with special sites.

Initially, any contact with other bodies involved in the prevention of pollution will be informal where a situation arises that requires action by that body. This information will, however, be followed by written details of the matters involved to the relevant body.

### Urgent Sites

At any given time sites may come forward that require immediate action. Where the Council can quickly determine the “appropriate person” immediate contact will be made and they will be encouraged to act accordingly. Formal



action will be taken if necessary, particularly if the “appropriate person” is unwilling to take action on the site.

Where the “appropriate person” cannot be found, the Council may have to consider taking action. Prior to committing any form of expenditure the matter would need to be brought to the attention of the lead officer. If it is considered appropriate, further authorisation may be required.

#### Cross Boundary Contamination

The Council has numerous ways of formally and informally contacting neighbouring authorities where concerns arise over the possibility of cross boundary contamination.

In particular, the Council belongs to the Central/East Pollution Control Liaison Group which encompasses all of Clackmannanshire’s direct neighbours.

## **Chapter 6: General Liaison and Communication Strategies**

### **Statutory Consultees**

- SEPA
- Scottish Natural Heritage
- Scottish Executive
- Historic Scotland
- Forth Valley Enterprise
- Food Standards Agency

Each organisation will be invited to comment on the draft strategy prepared by Clackmannanshire Council.

Before any site is identified as contaminated land which may be of any specific interest to any of the statutory consultees, informal contact will be made with the relevant body to establish any specific issues wish to raise.

Where more formal contact is required, a letter confirming exact details of the site will be forwarded to the relevant body.

### **Non-Statutory Consultees**

As well as consulting internally with all other Services within Clackmannanshire Council, details of the strategy will be forwarded to all Community Councils for perusal and comment.

### **Owners, Occupiers and other interested parties**

The Service approach to the enforcement of Part IIa is to emphasise voluntary action before any enforcement. This recognises the complexity of the regime and hopefully encourages all parties involved to approach this issue in partnership. Effective communication with all interested parties will be achieved by identifying one individual member of staff to each site and ensuring that contact name and telephone number is attached to all relevant correspondence.

Where contamination is present but the site is not designated under Part IIa as contaminated land, reference may be made, if appropriate, to the Development Control regime where contamination could be considered a material planning consideration.

Clearly, where conflict does occur direct lines of communication with Service Managers and, if necessary, the Head of Amenity and Protective Services will be available.

Remediation Notices will follow the style laid down in the Regulations and provide the content required by law including: -

- name and address of person on whom notice is served.
- location and extent of contaminated land to which the notice relates
- the significant harm or pollution of controlled waters by reason of which the contaminated land in question is contaminated land.
- the substances by reason of which the contaminated land in question is contaminated land and, if any of the substances have escaped from that land, the location of that land.
- the current use of contaminated land in question.
- what each appropriate person is to do by way of remediation and the periods within which they are required to do each of these things.

The Service recognises the need for strict confidentiality in dealing with interested stakeholders. Chapter 7 details the method of risk communication which it will adopt to prevent problems with conflict and blight.

### **The Public Register**

- The Council is obliged to hold a register of regulatory action carried out under Part IIa.
- The register is required under S78R of the Environmental Protection Act 1990. It is required to hold information relating to a prescribed list of notices, declarations, statements and convictions, as outlined in Schedule 4 of the Contaminated Land (Scotland) Regulations 2000.
- The register is required to hold the following information, namely;
  - (a) Identification Notices;
  - (b) Remediation Notices;
  - (c) Appeals against Remediation Notices;
  - (d) Remediation Declarations;
  - (e) Remediation Statements;
  - (f) Designation of special sites;
  - (g) Notification of claimed remediation;
  - (h) Convictions for offences under S78M of the Environmental Protection Act 1990;
  - (i) Guidance issued under S78V(1) of the Environmental Protection Act 1990;
  - (j) Information relating to sites where the authority is precluded from service of remediation notices;
  - (k) Information relating to sites where the authority is precluded from specifying action in a remediation notice.
- Wherever practicable, sites will be identified using Ordnance Survey plans and grid references.

- No information will be placed on the register which is not a statutory requirement.
- Information is required to be excluded from the register where it would comprise national security or be commercially confidential.
- Scottish Ministers have the power under the Environmental Protection Act 1990 to issue directions specifying types of information which must be excluded.

It is essential to recognise that the register is not a list of all potentially contaminated sites within the district.

This register will be held by the Development and Environmental Services Department, Clackmannanshire Council, Kilncraigs, Greenside Street, Alloa, FK10 1EB.

## **Chapter 7: Programme for Inspection**

‘The primary objective in inspecting land is to enable the Local Authority to obtain the information needed to decide whether or not land appears to be contaminated land.’ Paragraph 3:22 Scottish Executive Circular 1/2000 Environmental Protection Act 1990 – Part IIa Contaminated Land.

‘Any determination by the Local Authority that particular land appears to be contaminated land is made on one or more of the following bases, namely that:

- (a) Significant harm is being caused
  - (b) There is a significant possibility of such harm being caused
  - (c) Pollution of controlled waters is being caused; or
  - (d) Pollution of controlled waters is likely to be caused.’
- Paragraph 3.27 Scottish Executive Circular 1/2000 Environmental Protection Act 1990 - Part IIa Contaminated Land.

This Section details the approach that will be followed by Clackmannanshire Council in respect of inspection of its area.

Reference should be made to the timetable in Chapter 4 for exact dates of actions to be taken.

### **Site Investigations:**

The following guidance will be used as reference for site investigations.

<b>Key Guidance in Connection with Site Investigation</b>	
General Good Practice	Model Procedures for the Management of Contaminated Land (CLR 11) (in preparation)  BS10175: 2001 Code of Practice for the Investigation of Potentially Contaminated Land BSI  CIRIA Special Publication 103, Site Investigation and Assessment (1995)
Desk Studies:	Documentary Research on Industrial Sites, DETR, 1994, (CLR 3)  Trade Industry Profiles, DoE  Prioritisation and Categorisation Procedure for Sites which may be contaminated, DETR, 1995 (CLR 6)

Site Reconnaissance:	Guidance on Preliminary Site Inspection of Contaminated Land, DETR, 1994 (CLR 2)
Intrusive Site Investigation:	<p>Sampling Strategies for Contaminated Land, DETR, 1994 (CLR 4)</p> <p>A framework for Assessing the Impact of Contaminated Land on Groundwater and Surface Water, DETR 1994, (CLR 1)</p> <p>Development of Approaching Soil Sampling Strategies for Land Contamination, Environment Agency R &amp; D Report HOCO 352 (in preparation)</p>

Liaison with owners and appropriate persons on individual sites will follow the methods detailed in Chapter 6.

Liaison with SEPA will follow the protocol laid down with the organisation after a period of consultation. Standardised forms for the exchange of information with SEPA will also be employed, where necessary, to gain information as required.

Liaison with other statutory bodies will be of an informal nature. It is anticipated that a telephone call will be made to the relevant contact when information is required, outlining the details requested, followed by a letter confirming this conversation and outlining the information required.

**(i) Initial Assessment (Phase 1)**

- computer based research
- paper based research
- any other information available

**Assessment/Prioritisation**

The main driver for prioritisation of sites remains the risk to human health and accordingly assessment and subsequent prioritisation will depend on the identification of potential risk to human health.

The priority sites are likely to be

- identified as having previous contaminative use from the ‘Landmark’ database and
- identified as having previous contaminative use from paper based information held by Clackmannanshire Council; and
- identified as having previous contaminative use from Clackmannanshire Council’s previous investigation into contaminated land.

In terms of potential impact on controlled waters the following should also be considered

- vulnerability of the waters concerned to pollution;
- the use of the waters;
- the importance of the waters; and
- the magnitude of the likely pollution.

Sites which fall within some of the above but not necessarily all will be considered within the broad framework of the Council's priorities in relation to contaminated land.

The objective of this stage in the process relates to the collation of all relevant information in relation to specific sites.

- the purpose of this stage is prioritisation of sites.

## **(ii) Detailed Assessment (Phase Two)**

- At this stage the Service will have considerable information on a number of sites. In many cases, suspicion about actual contamination may have arisen.
- During this period, the Service will attempt
  - (a) To specifically identify each site in geographical terms
  - (b) To create an active file for each site collating all known information
- Consideration will be given to the acquisition of suitable software packages which can assist in the collation of known information for each site and/or in risk assessment and/or site prioritisation.
- The purpose of this stage is to provide specific evidence that suggests that a pollution linkage consisting of source, pathway and receptor exists for those sites within Clackmannanshire that desire further investigation as a result of the assessment phase.
- The objective of this stage is to provide a list of sites within Clackmannanshire that have priority status in terms of inspection and which have been identified in a manner required by Chapter 3 of this document namely
  - rational, ordered and efficient
  - proportionate to the seriousness of any actual or potential risk
  - seek to ensure that the most pressing and serious problems are located first
  - ensure that resources are concentrated on investigating in areas where the authority is most likely to identify contaminated land; and
  - ensure that the local authority efficiently identifies requirements for the detailed inspection of particular areas of land.

The assessment period reflects both the resource implications for this Service and the anticipated volume of information that is liable to be available for many sites.

This does not preclude action where an urgent site is identified or a serious and pressing problem arises.

It does, however, enable the Service to accurately pinpoint sites which are liable to have

- a pollution linkage and
- present a risk to human health

### **(iii) Inspection: (Phase 3)**

Before considering the use of statutory powers to gain access to land, the Service will informally contact the landowner requesting access and advising of the reason for such access.

Without being duly alarmist, the Service will attempt to outline to the landowner that the possibility of a pollution linkage exists and that the Service requires to investigate further.

Section 108 of the Environment Act 1995 gives the local authority the power to authorise a person to exercise specific powers of entry. For the purpose of this Chapter, any inspection of land carried out using this power can be described as 'inspection using statutory powers of entry'.

Initial inspection is likely to involve only a walkover study. This will not normally involve intrusive work although it is possible that sampling of visible contamination and/or fauna noticed on the site may be undertaken, if appropriate. This will only occur, however, based on scientific evidence and site specific concerns identified in the assessment stage. The walkover study will, however, involve photographic evidence, particularly where contamination is evidence and some rough mapping (if necessary).

- Details of the walkover study will be logged and attached to the site specific file held by the Service.
- If intrusive investigation is required for a site, the Service is likely to use specialist knowledge and expertise from external sources. This is only likely to occur after the walkover study has confirmed or raised suspicions that the site(s) concerned may be contaminated.
- Prior to any investigations, unless extremely urgent sites, further contact will be made with the landowner/appropriate persons' and



details of the concerns raised and the actions considered appropriate will be provided.

The exact details of the intrusive investigations will be based on scientific assessment, using conceptual modelling where necessary, and will emphasise the basis of the concept of pollution linkage.

The methodology used in intrusive investigations will follow general good practice as laid down at the beginning of this Chapter.

The Service will attempt to execute intrusive investigations as soon as practical after it is considered they are necessary. However, the appointment of external contractors/consultants may delay this process. Where this occurs, every effort will be made to advise all parties concerned of the up to date progress on the site concerned.

Where it is considered necessary to contact other regulatory bodies throughout any part of the inspection process, methods outlined in Chapter 6 will be followed.

- Once the appropriate scientific and technical assessment of the land has been undertaken, and, giving due regard to comments from other regulatory bodies, the authority will then made an appropriate determination, as soon as possible.

## **Risk Assessment**

The main conceptual steps in risk assessment include

- Hazard Identification
- Hazard Assessment
- Risk Estimation
- Risk Evaluation

Each site, as it develops, will undergo refinement in the risk assessment undertaken. Hazard identification is liable to be covered in the initial assessment stage leading to Hazard Assessment which will assist in the prioritisation of site investigation. Risk estimation and evaluation may involve the use of suitable software but will require site specific scientific breakdown of the hazard assessment process to enable adequate investigation of each site. Given the site specific nature of the last two stages, in particular, it is anticipated that a number of sources of scientific study will be used. Whilst many can be covered by the 'Key Guidance in connection with Site Investigation', some may not e.g. The "Sniffer" Framework for Deriving Numeric Targets to minimise the adverse Human Health Effects of Long Term Exposure to Contaminants in Soil. Any communication, however, will identify the scientific guidance involved, where appropriate.

### Risk Communication:

The Service does not intend to adopt an inflexible unitary approach to risk communication.

Dependant on the site, the contamination involved and the levels of contamination identified, the Service will adopt a pragmatic approach to communication with all customers.

However, where information is required to be released, the Service anticipates that a number of methods of communication are available

- Fact sheets to residents
- Press releases
- Public notices/sheets at all offices
- Meetings with community/residents groups as required
- Information page on Council's Website

All the information supplied will detail the relevant points in a sensitive manner which is easily understood.

Furthermore, in following the general policy of the local authority (Chapter 1) the Service seeks to provide based on principles of openness and accountability. Accordingly, every effort will be made to provide information which is suitable for the purpose, accurate, and relevant whenever asked.

Reference will also be made to the booklet 'Communicating Understanding of Contaminated Land Risk' and the advice contained.

## **Chapter 8: Review Mechanisms**

This part of the strategy outlines instances when review of the approach being taken by this Service will be undertaken.

### Acting Outwith The Strategy

- Unplanned events – accidents, spills
- Introduction of new receptors e.g new build on potentially contaminated land
- Supporting voluntary remediation
- Responding to information received

This list is not exhaustive. This Service intends to remain as flexible and open as possible to address concerns raised. Clearly, however, for the strategy timetable to work, the Service cannot have the above items acting as the main drivers for inspection.

### Reviewing Inspection Decisions

- Significant changes in legislation
- Establishment of case law
- Revision of guideline values or other scientific information

### Responding to Relevant Information

- Proposed or actual changes to the use of the site
  - Proposed changes in the use of surrounding land
  - Unplanned changes in land use
  - Unplanned events
  - Reports of pollution
  - Responding to information from statutory bodies
  - Responding to information from other stakeholders
  - Monitoring information becomes available
- In order to remain open and transparent, the Service must be able to change approach when information received indicates that the findings of a previous approach require review. All decisions will be recorded in the unique site file created

### Reviewing The Strategy

- It is intended that a period of review will be undertaken at the end of each year to identify any potential areas of difficulty within the Strategy
- This will also enable a period of assessment of the previous years work as well collation of the actions taken, sites assessed etc.

- At the end of the five year period proposed in the timetable (Section 4) a major review of the whole strategy will be undertaken to identify what matters remain outstanding and the way forward with contaminated land issues in Clackmannanshire.

## **Chapter 9: Information Management**

### **General Principles**

It is anticipated that the authority will obtain a large and varied amount of information in relation to its performance of the duty specified in Part IIa of the Environmental Protection Act 1990.

The authority will strive to ensure that the information held will be

- (a) Accurate
- (b) Secure
- (c) Relevant
- (d) Accessible (where appropriate)

Information pertaining to the service of remediation notices and identification notices shall be held in register form at the Development and Environmental Services Department Clackmannanshire Council, Kilncraigs, Greenside Street, Alloa, FK10 1EB. This is detailed in Chapter 6: General Liaison and Communication Strategies.

Other information or reports will be released, as appropriate, on an individual request basis. Every attempt will be made to ensure transparency of all decisions made by Clackmannanshire Council in relation to Part IIa. Where concerns occur about the relative confidentiality of information as opposed to accessibility, legal opinion will be considered if necessary.

It is anticipated, particularly over the assessment phases of the strategy, to develop a secure system which can be fully utilised by staff. In particular the system should incorporate the available GIS with the working system used by the officers within Development and Environmental Services.

The aim is to provide a system which

- identifies each site uniquely;
- enables storage and retrieval of all relevant information pertaining to each site;
- enables details of site investigation and study work to be logged for each site;
- enables the individual officer involved in a site to be identified.

It is hoped that from this system a number of standardised communications, both formal and informal, can be developed which will enhance the transparency, efficiency and effectiveness of the enforcement of Part IIa of the Environmental Protection Act 1990.

This system will be actively managed by the investigating personnel and supervised by line management.

Information released will have a contact name and address should any queries arise. Both informal and formal communications will be attached to the specific site concerned together with the relevant officers details.

## **Appendix 1**

### **Consultees**

- Scottish Executive  
Environment Protection Unit  
Victoria Quay  
Edinburgh  
EH6 6QQ
- S.E.P.A. (f.a.o. Kim Bradley)  
Edinburgh Office  
Clearwater House  
Heriot Watt Research Park  
Avenue North  
Riccarton  
Edinburgh  
EH14 4AP
- S.E.P.A. (f.a.o. Carrie Stein)  
East Region  
Stirling Office  
Erskine Court  
The Castle Business Park  
Stirling
- Scottish Natural Heritage (f.a.o. Mike Shepherd)  
Battleby  
Redgarten  
Perth  
PH1 3EW
- Historic Scotland  
Longmore House  
Salisbury Place  
Edinburgh  
EH9 1SH
- Scottish Enterprise Forth Valley  
Laurel House  
Laurelhill Business Park  
Stirling

- Food Standards Agency  
6<sup>th</sup> Floor  
St. Magnus House  
25 Guild Street  
Aberdeen  
AB11 6NJ

Neighbouring Authorities

- Falkirk Council
- Stirling Council
- Perth & Kinross Council
- Fife Council



## **Appendix 2**

### **References**

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