Comhairle nan Eilean Siar
Contaminated Land Inspection Strategy
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Chapter 1

BACKGROUND AND INTRODUCTION

Summary
A new statutory regime for the identification and remediation of contaminated land came into force in Scotland on 14 July 2000 and all Scottish local authorities are required to adopt and publish a written strategy by 14th October 2001. The aim of the new regime is to identify and remove unacceptable risks to human health and the environment, to bring damaged land back into beneficial use and to ensure the cost burdens faced by individuals, companies and society are proportionate, manageable and economically sustainable.

This document sets out an inspection strategy adopted by Comhairle nan Eilean Siar with respect to carrying out its responsibilities in terms of the contaminated land regime, brought into force with the Contaminated Land (Scotland) Regulations 2000. It is presented in three parts and represents an ordered and rational approach to contaminated land identification.

Chapter 1 explains how the Comhairle will undertake its duties in terms of strategy development and implementation.

Chapter 2 is an introduction to the contaminated land regime, it identifies corporate aims and objectives of Comhairle nan Eilean Siar and discusses the relationship of existing Comhairle plans and policies, that will influence the development of the strategy.

Chapter 3 highlights the characteristics of the Western Isles, which have important implications for development of the strategy.
Strategy Development and Implementation

Outline

The following sections of this strategy document describe how the Comhairle nan Eilean Siar will address the development and implementation of its strategic response to the contaminated land regime. This strategy addresses the issues of land contamination by developing an information management system utilising a MapInfo Geographic Information System.

Elements of the pollutant linkage (source-pathway-receptor), likely to be important within the Western isles are described and priority considerations identified.

Information from a number of key data sources (listed in Appendix V) will be input into the MapInfo database. This dataset and the management of existing and newly sourced information will be described.

As soon as this key data has been captured in the database, the initial screening of the dataset will be carried out by the Lead Officer for Contaminated Land. Comhairle nan Eilean Siar is in the process of developing an “in house” initial priority ranking system. This will effectively be a desk top based survey of the area to identify areas of land where:

- previous uses indicate contamination may exist.
- there are known receptors within a determined area of influence.
- there is no existing pollution control regime in place.

Following this “in house” screening process to categorise potentially contaminated land, the Comhairle will use the CLARE (Contaminated Land Risk Evalulator) risk based software package to evaluate these potentially contaminated sites and rank them accordingly.

The first year after the strategy is published will be devoted to carrying out the desktop survey of the Western Isles.

The remaining sections outline internal procedures for dealing with the contaminated land regime, and issues associated with land contamination.
**Aims and objectives**

The Comhairle’s Strategy aims are:

- to provide a framework within which the Comhairle will ensure compliance with and enforcement of Part IIA of the Environmental Protection Act 1990, inserted by Section 57 of the Environment Act 1995,
- to demonstrate Comhairle’s strategic approach to the contaminated land regime and integrate the actions of individual Comhairle Services around issues of land contamination,
- to ensure that the approach to inspection is carried out in an ordered and efficient manner and is subject to appropriate consultation and review,
- to highlight the influence the characteristics of the Western Isles area have on the implementation of the contaminated land regime,
- to ensure that the strategy is kept under periodic review,
- to encourage voluntary remediation where contaminated land is identified or considered likely,
- to ensure that where redevelopment of land takes place, the planning process deals effectively with any land contamination so that the land is suitable for its intended use, and
- to address the liability issues associated with the Comhairle’s existing and former land holdings and avoid any new liability with land transactions.

The Comhairles’ objectives are the:

- provision of a documented strategy for the information of Comhairle members and officials, interested parties and individuals, and members of the public,
- identification of potential sources, receptors and possible pathways,
- collation of existing information within the Comhairle, and identification of important information held outwith the Comhairle,
- development and management of an electronic contaminated land data base,
- targeting of priority areas for the investigation of historically polluted land, and land likely to fall within the statutory definition of contaminated land,
- identification and where necessary determination of statutorily contaminated land,
- to establish close working relationships with other enforcement authorities and provision and maintenance of a contaminated land public register.
- periodic review of the Comhairle’s strategy for dealing with contaminated land,
- provision to ensure where a planning application is received for a site which is potentially contaminated either: the planning application is not approved until a site investigation with respect to contamination has been undertaken, and any necessary remedial works have been identified and approved; or planning permission is granted subject to conditions relating to the investigation of the site and the carrying out of necessary remedial works prior to the development commencing,
- provision of data in a format that will assist the Planning Authority in the identification of potentially contaminated land, and
- provision to assess land for which the Comhairle may be the “appropriate person”.

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Information Management

Information currently being gathered is an essential pre-requisite in terms of the implementation of this strategy. This information is in electronic and digital formats, paper records and maps. As the majority of this information is spatially orientated, a MapInfo Geographic Information System (GIS) will be utilised.

MapInfo (GIS) will facilitate the risk-based screening of sites and assist in prioritisation of site inspections. Cross-referencing with existing archives and the integration with existing electronic databases will also be achieved.

Access to MapInfo will be limited to data custodians with contaminated land responsibilities and IT support and management staff. The long-term aim will be for access to be made available Comhairle wide to the MapInfo contaminated land database subject to data protection, confidentiality and restricted access protocols being in place.

A series of screening and risk evaluating stages will require to be applied to data within MapInfo to identify sites of highest priority and those where contaminated land is most likely to be found.

Sources-Pathways and Receptors

Sources of Contamination

The following section outlines the sources of contamination most likely to be considered as important within the Western Isles.

Historical industrial land use

The following categories represent the types of land use likely to contain contaminants within the Western Isles;

- Engineering and fabrication
- Former landfill sites
- Animal slaughter and by products processing
- Scrapyards
- Dockyards wharves and airports
- Energy production and generation
- Tanneries (small-scale)
- Garages, including depots, sale and storage of fuels and vehicle repair
- Derelict petrol tanks
- Textile manufacture and dyeing
- Gasworks
- Quarries
- Builders yards
- Aquaculture processing facilities
- Vacant Ministry of Defence Land and Property

A risk based software package has been purchased that will enable the Comhairle to evaluate the risks for those sites identified as potentially contaminated and risk rank them accordingly. The software package will be used to generate a database of the contamination sources, receptor and pathway types, legal history, as well as site and ownership details of potentially contaminated sites.
**Historical landfill**

Sites where a variety of materials with the potential to act as contaminants have been disposed of or where they may have been used in landscaping can act as important sources of contamination. A review of existing information regarding such land use within the Comhairle will be undertaken.

**Military**

The Western Isles area has had a long association with various sectors of the military establishment; military bases, fuel and weapons depots, ranges, airfields and training areas that may contain historic contaminants, which require consideration within the strategy. The identification of such sites is already taking place.

**Natural**

Natural sources of contamination, resulting from naturally occurring, elevated levels of chemicals or compounds will be considered. Such information will be sourced from BGS, MLURI and existing site investigation reports provided through the planning regime.

**Redevelopment**

Sources of contamination, which may form an element of pollutant linkages as a result of previous redevelopment, require to be considered within the inspection strategy.

**Current Industrial Land Use**

Current industrial land use, highlighted in contemporary maps, local plans and process authorisations may indicate potential historic industrial land use and potential sources of contamination. Such information will be collated and utilised within the assessment procedures developed within the Comhairle’s contaminated land MapInfo GIS.

**Pathways**

Direct exposure of human populations with proximity to sources, through inhalation, dermal contact and ingestion pathways will be considered as the highest priority within the implementation of the contaminated land regime. Water courses can also allow migration of contaminants, thereby acting as an indirect potential pathway to potable water supplies.

Water supplies (Public or Private) can allow migration of contaminants to receptors and by doing so introduce a pollution linkage. As a result water supplies will be considered as important potential pathways to human receptors. Liaison between the Comhairle’s Department for Sustainable Communities and NOSWA will be important in identifying such potential pathways and assessing any impact on the human population.

The produce of agriculture, fisheries and aquaculture when incorporated in the human food chain may expose contaminants to the human population and thus may be important pathways within a pollutant linkage. Similarly certain commercial uses of water resources, both indirectly and directly, may introduce a pollutant linkage within the human food chain. Again, it will be important for the Comhairle’s Department for Sustainable Communities to liaise with the Food Standards Agency Scotland (FSAS), and The Western Isles Health Board, both in identifying contaminative hazards and assessing the risks they present.

Similarly the potential use of private gardens and allotments for growing food for human consumption will be an important consideration in identifying potential pathways in areas with suspected contamination.
Both solid and drift geology exposed to particular sources of contamination may allow transmission of contaminants, either as liquids, or in solution, and as gasses. Different rock types may act as a pathway for a variety of receptors ranging from controlled waters, property, and ecological and human receptors. Should it be required, expertise in an appropriate field (hydrologist, geologist, etc.) may have to be employed by the Comhairle to assess the significance of such a pathway.

**Designated Receptors**

Population density has been mapped across the Western Isles. Further clarification of information within this dataset, to identify particularly sensitive population categories and characteristics, is being considered. Following the successful screening of this information it will be mapped within the database as and when it becomes available. The human population of Comhairle nan Eilean Siar’s area is considered within this strategy as the highest priority receptor. The proximity of the human receptors to a number of identified potential sources of contamination will be considered within the strategy as an initial screening step during the identification of contaminated land.

Surface waters have been mapped across the Western Isles and will be included in the contaminated land database. North of Scotland Water Authority (NOSWA) will be consulted on important catchments for public water supply, and requested to provide this as digital information for inclusion within the contaminated land database. The mapping of private water supplies across the Western Isles will be reviewed and included within the database.

Information on ground water vulnerability will be obtained from BGS and if at all possible will be incorporated within the contaminated land database.

SEPA, within its general responsibility for protecting the water environment, has been consulted on the controlled waters it considers as particularly important by virtue of their value, use or vulnerability. This information will be incorporated into the MapInfo Contaminated Land database.

Spatial mapping of designated ecological sites already exists within the MapInfo database. This information will be updated as and when it becomes available from Scottish Natural Heritage and will be imported into the contaminated land database.

The Comhairle’s archaeologist has up to date digitised information regarding scheduled ancient monuments that will be available for importation into the contaminated land database. Historic Scotland has provided this information.

The results of a pilot GIS mapping project will determine the time frame by which additional spatial datasets could be mapped and incorporated into the contaminated land database. For example, additional land use categories associated with agriculture and crofting units, important fisheries and locations of sites of fish and shellfish farms. However, land associated with those directly involved in food production will be given priority.

The determination of land as statutorily contaminated will be in accordance with descriptions of significant harm and significant possibility of significant harm contained within the statutory guidance (Appendix I & Appendix II), and in relation to controlled waters. Issues relating to the pollution of controlled waters will be viewed in light of statutory guidance and advice will be requested from SEPA.
Sources of Information

Internal sources

Comhairle nan Eilean Siar will utilise a variety of sources of information in identifying receptors, sources and pathways, and assessing pollutant linkages in its strategic approach to the regime.

Identification of potentially contaminated sites from historic land uses will require examination of historical maps. Ordnance Survey County Series and National Grid archive maps have been digitised and are commercially available. These digital maps allow a more efficient examination of historic spatial information and can be formatted to integrate directly with MapInfo GIS. The purchase and use of these maps is an essential element in strategy implementation.

The Comhairle, with its many functions, holds a variety of registers, lists and databases that contain information relevant to the inspection strategy. Data on sites, from a number of sources, is currently held on both paper based and electronic systems within the Comhairle. Individual departments are reviewing this information and assessing its potential use within the contaminated land regime.

Remediation works at sites prior to this regime coming into force have been identified and an assessment of these works will be undertaken. To determine the extent of remediation undertaken, liaison within the Comhairle, outside bodies and other regulatory authorities will be required.

Anecdotal evidence from current and previous staff members will be sourced and in some instances will be invaluable in identifying potentially contaminated sites. Staff will be encouraged to contribute such information through a number of internal channels. When appropriate, former staff will be invited to contribute to this knowledge gathering exercise.

External sources

Other external organisations hold registers and information, which will also be important in enabling Comhairle nan Eilean Siar to identify potentially contaminated sites. These include the Scottish Executive, Scottish Natural Heritage, Historic Scotland, Statutory Enterprise Bodies, Scottish Environment Protection Agency, the Ministry of Defence, owners of large estates such as the utility companies, Community Councils, and Historical Societies to name but a few. Appropriate links will be established with such organisations to ensure efficient liaison, consultation and transfer of information.

Comhairle nan Eilean Siar will purchase digitised solid geology maps from BGS. Information on the geology and hydrology of the Western Isles is essential for the determination of pollutant linkages and in assessing potentially contaminated sites. The Comhairle will consider the purchase of digitised hydrogeological data for the Western Isles as and when it becomes available in digital format.

Information provided by the Public and other Outside Bodies

This is recognised as being an important source of information, as certain members of the public will be in possession of information that is not likely to be common knowledge. The Comhairle will encourage the participation of the public within the implementation process, and will welcome information they provide.

The Comhairle will welcome information from all sources, but it should be noted that it can only act on information that can be verified or can withstand robust scrutiny.
Anecdotal information will be noted and assessed at the discretion of the appropriate officer.

All information providers will be requested to supply their names and contact details. Their identities will, as far as practicable, remain confidential.

**Prioritisation**

In carrying out its inspection duty, the statutory guidance states that the local authority should take a strategic approach to the identification of land that merits detailed individual inspection. Inspection priorities must reflect the application of principles set out in the statutory guidance and ensure their approach:

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

The statutory guidance indicates that each authority, in determining its individual priorities for inspecting its area, should take into account the particular circumstances of its area. For example, priorities will be influenced by the history, scale and nature of industrial and other potentially contaminative land use activities, the areas geographic and population settlement patterns, and may reflect the authority’s broader objectives in such fields as economic development, land management, public health and environmental protection.

Following the “in house” desk top survey, areas of land which merit more detailed inspection, because they represent the most pressing or serious sites or are areas where contaminated land is most likely to be found, will be investigated on a more detailed or site specific bases. Such sites will be identified through the CLARE (Contaminated Land Risk Evaluato) risk based software package that will evaluate the potentially contaminated sites and rank them accordingly.

Areas of land to be classified as part of the ‘In house’ desktop survey for inspection within the strategy are those:

- with an historic land use profile for contamination,
- identified within a high population buffer zone,
- containing designated environmental receptors,
- important in food production,
- containing designated historic sites and property,
- associated with valuable and vulnerable water resources,
- with important established pathways,
- that are important in maintaining, supporting and sustaining the fragile Western Isles economy
- that in particular maintain, support and sustain the Islands unique environmental and cultural heritage
Procedures for Site Prioritisation

Comhairle nan Eilean Siar scheme for identifying and prioritising areas of land for inspection is outlined in the following stages:

- **Stage 1** is effectively the input and incorporation within MapInfo of key data sources reproduced for information in Appendix V.
- **Stage 2** involves the identification and land use classification of potential sites based on an index of perceived risk. Reference is made to the Desk Reference Guide to Potentially Contaminative Land Uses (Sym 1999) as this will be used to initially categorise sites. These perceived risk categories are intended to indicate the likelihood of the presence of contaminative substances at concentrations, that might result in “significant harm” having been caused or the pollution of controlled waters.
- **Stage 3** will involve the use of a risk based software package called CLARE, that will prioritise potential sites identified in stage 2.
- **Stage 4** will involve the assessment of whether existing information is adequate to determine land as “Contaminated Land”, identify requirements for further information and how this information will be obtained. Should site investigations be required then the services of consultants will be commissioned.
- **Stage 5** will be the designation of “Contaminated Land” based on adequate information being gathered (Procedural flow diagram is reproduced for your information in Appendix III). In carrying out this final step Comhairle nan Eilean Siar will have regard to the following:
  - Scottish Executive Circular 1/2000 statutory guidance,
  - national and international robust frameworks and standards for the investigation of contaminated land and pollution of controlled waters, for example BS 10175:2001 Investigation of potentially contaminated sites – Code of practice, and

Urgent sites will be addressed as and when the Comhairle becomes aware of them and will be considered within the appropriate stage of this prioritisation procedure, depending on the extent of existing information and/or the information provided.

Internal Procedures

**Strategy Responsibilities within Comhairle nan Eilean Siar**

Within Comhairle nan Eilean Siar the responsibility for its regulatory role rests with the Director for Sustainable Communities who will designate a Lead Officer for Contaminated Land. The Lead Officer is responsible for the development and implementation of the Inspection Strategy. The Lead Officer will oversee information management within the regime, carry out procedures to identify priority sites, liaise with external organisations and appropriate persons where identification of contaminated land is likely, and ensure remediation through, voluntary agreement, formal designation or by direct intervention.

The Lead Officer will be responsible for advising the Comhairle on contaminated land issues, ensuring objectives are met within appropriated timescales and reviewing the Inspection Strategy.
A Contaminated Land Working Group has been established with a remit to consider corporate issues arising as a result of the development and implementation of the contaminated land regime. The working group will convene every 6 months to review and assess the impact on, and interaction with existing service functions.

The Lead Officer chairs this working group, which has delegates representing the services listed in Table 1.
**Table 1: Responsibilities of Comhairle nan Eilean Siar within the contaminated land regime**

<table>
<thead>
<tr>
<th>Departmental Service Provision</th>
<th>Role within contaminated land regime</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sustainable Communities</td>
<td>Consideration of the Inspection Strategy within Corporate policies and relationships with organisations in established partnerships.</td>
</tr>
<tr>
<td>Environmental Health</td>
<td>Manage the development and implementation of the Inspection Strategy; enforce; external liaison with other regulatory agencies &amp; outside bodies; provision of public health and environmental protection advice.</td>
</tr>
<tr>
<td>Strategic Planning and Projects</td>
<td>Advice on strategic planning considerations, local plans and structure plan. Support and development of contaminated land GIS: provision and maintenance of key datasets utilised in Strategy; advice on issues of sustainable development and Agenda 21.</td>
</tr>
<tr>
<td>Planning and Building Control</td>
<td>Ensuring issues of land contamination are addressed within planning applications and advice on historical planning issues. Ensuring contaminated land issues arising within the building control regime are identified and addressed.</td>
</tr>
<tr>
<td>Education &amp; Leisure</td>
<td>Advice on building receptors with archaeological importance.</td>
</tr>
<tr>
<td>Cleansing</td>
<td>Provision of information and advice on historic landfill sites.</td>
</tr>
<tr>
<td>Corporate Services</td>
<td>Advice regarding legal interpretation of the statutory regime; representation and provision of advice with respect to Comhairle and Service liabilities and obligations, particularly regarding all land transactions, &amp; Comhairle’s estate portfolio. Provision and maintenance of the Comhairle’s corporate property database.</td>
</tr>
<tr>
<td>Financial Services</td>
<td>Advice regarding financial implications of the strategic response to the contaminated land regime, Comhairle obligations and its regulatory role.</td>
</tr>
</tbody>
</table>

- **Policy Officer**
- **Lead Officer Contaminated Land**
- **Planning Officers**
- **Comhairle Archaeologist**
- **Cleansing Officer**
- **Legal Services**
- **Senior Accountant**
Complaints and Service Requests

Comhairle nan Eilean Siar will continue to use its existing internal departmental complaints procedures. These procedures will be adapted to deal with contaminated land issues. Complaints or service requests will be logged and updated within the departments existing electronic recording system by the appropriate administrative officer, and will be subject to the same standards of service delivery as are currently adopted. Every effort will be made to resolve complaints quickly and efficiently, and to keep the complainant informed of progress.

An anonymous complaint or information received relating to contaminated land will be processed to a degree considered necessary according to the circumstances. No extensive investigations will be undertaken unless there is supporting evidence of contamination from historical or a non-intrusive examination of the site.

All complainants and information providers will be requested to supply their names and contact details. The identities of all complainants and information providers will, as far as practicable, remain confidential.

Interaction with Planning and Building Control Regimes

Land contamination can be addressed by the planning system in terms of its strategic policy framework and when individual applications are considered as part of the development control process. In relation to the determination of planning applications, land contamination may be regarded as a “material consideration”. Land contamination should also be considered as a factor in the preparation of development plans. Although the contaminated land regime and planning system run in parallel, and are administered through different services within the Comhairle, land contamination issues will require interaction between them and an important part of the Comhairle’s Inspection Strategy will be how such issues are addressed.

The contaminated land regime only considers contamination issues in terms of risk within the context of historic and existing use. There are likely therefore to be instances where issues of land contamination on a particular site will fall outwith the contaminated land regime, by virtue of the statutory definition of “contaminated land”, yet remain issues within development control.

Within Comhairle nan Eilean Siar the Contaminated Land Working Group will review the interaction between development control and the contaminated land regime. Discussions, regarding issues of land contamination relating to development plans, and the strategic policy framework of the planning system, will take place within this group.

Procedures have been developed to make certain land contamination issues are highlighted within the development control process, make sure appropriate comment is made at local area level, and confirm that such information is managed within the implementation of the contaminated land regime. These procedures will be routinely reviewed to ensure consistency and effective function.

Where a proposed development would come within the remit of the Building Control service, issues of land contamination would be addressed in terms of the Building Standards (Scotland) Regulations 1990. Technical Standards for compliance with these Regulations ensure that measures are taken to protect people, and the fabric of a building, from harm, which could be caused by site conditions. Procedures have been developed to make sure that Building control are notified, where these issues arise.
Communications within and between Comhairle services, about land contamination issues arising as a result of applications within the development and building control processes, have been formalised to ensure an ordered and efficient approach.

Information, consultants’ reports and other supporting documentation submitted with planning applications are available in the public domain, such information cannot therefore be treated as confidential and will be used in compiling information on specific sites.

**Information Requests**

The Comhairle recognises it has an important role in relation to the provision of information on contaminated land. However there are important resource implications in such provision. In addition there are issues of confidentiality, data protection, access to information and human rights, in the request and provision of information. Such issues will be addressed within Comhairle nan Eilean Siar Contaminated Land Working Group and will receive particular scrutiny by the Comhairle’s legal department.

The Comhairle will continue to provide information in response to enquiries as they arise, and will meet any resource implication with an appropriate charge.

On going investigations of contaminated land will be considered as confidential information and as such Corporate Services will determine access to this information.

**Communications**

The development, publication and implementation of Comhairle nan Eilean Siar’s Contaminated Land Strategy has and does require the formation and use of direct lines of communication within and outwith the Comhairle. Internal communication within the Comhairle between officers, services and members, has progressed through a Contaminated Land Working Group and elected members have been advised through Committee reports.

To facilitate the development and implementation of the Inspection Strategy, Comhairle nan Eilean Siar has and will liaise and consult with a number of bodies and organisations in established partnerships and working groups. These include the Scottish Executive, SEPA, neighbouring local authorities, Western Isles Health Board, Local Enterprise Companies, Historic Scotland, SNH, NOSWA, HSE and the BGS.

Direct and effective communication with SEPA is essential in implementing the contaminated land regime in the Western Isles. This is because SEPA is a source of site-specific advice, has a complementary regulatory role and has the responsibility of compiling a state of contaminated land report. In consultation with local authorities, SEPA has published a framework for liaison (Framework for Local Authority- SEPA Liaison under Part IIA). Although there is no formal adoption of this framework, Comhairle nan Eilean Siar will use it where appropriate.

Informal approaches with the owners and occupiers of sites considered in the implementation of the inspection strategy will be essential in establishing site contamination profiles, communicating issues with potentially responsible individuals and organisations, and promoting voluntary remediation.

Importantly Comhairle nan Eilean Siar may require the expert services of contractors and consultants for site investigation, assessment and interpretation, and in some instances, remediation work. It will be important therefore, that lines of communication are established with companies that have the professional expertise and experience, incorporating verifiable quality control accreditation’s and are able to demonstrate their
competence in terms of the requirements of the contaminated land regime. This basically relates to site investigations, pollutant linkage and risk assessment methodologies. This process has already started.

**Timescales and Review**

The setting of objectives requires an indication of the time period within which these objectives can be achieved. Statutory guidance indicates that local authorities should include in their strategies appropriate time scales for the inspection of different parts of their area.

Within the contaminated land regime there are many uncertainties. These are associated with resource implications for the Comhairle and not knowing the extent of contaminated land within the Western Isles. It is therefore difficult to estimate the time tasks such as information gathering are likely to take, particularly where archived materials are involved or information has been requested from other organisations or agencies outwith the Comhairle.

The initial “in house” screening of the main settlements will be completed by October 2002. A provisional timescale for achieving a number of objectives and addressing priorities over a five-year period is provided in Appendix VI.

It is unlikely that the strategy at this stage can identify the full range of issues, which it will require to address as the Comhairle implements its response to the regime. This document therefore represents the first attempt to provide a strategic response for the Comhairle nan Eilean Siar to the issues of land contamination and the contaminated land regime.

It will provide a framework around which policies, procedures and management systems will be developed and reviewed. The strategy will have to be seen as a living document and as such will need to be both proactive and reactive in terms of addressing local needs and incorporating further changes in statutory guidance as and when they occur.

The strategy will be subject to annual review by the Comhairle’ Contaminated Working Group to ensure that it reflects the changes in current guidance and/or legislation, that it adequately addresses the range of contaminated land issues and reviews the implementation of the strategy. It is anticipated that such a review will take place within 6 months of the publication of the strategy.

This will not preclude unplanned reviews should situations arise which require amendments or alterations of the strategy.
Chapter 2

Contaminated Land

Contaminated land: the problem

In common with many other countries, Scotland has a legacy of land contamination arising from past industrial activities. It is not known, in detail, how much land in Scotland is contaminated. To this day many human activities have caused land contamination. Pollution from industrial processes, the manufacture, use and storage of chemicals, gasworks, landfill, heavy engineering facilities, petrol stations and some agricultural activities have historically been allowed to escape onto and into land and waterways. Land can be contaminated by a variety of substances that pose immediate or long-term risks to human health and the environment. Such contaminates could escape from the site to cause air, land, surface water or ground pollution, and in some cases may even damage buildings and underground services, or contaminate the food chain.

It has been the intention of successive governments to implement a regime to deal with contaminated land since the early 1990’s. Following consultation on the Governments’ White paper in 1993 “Paying for our Past”, the government published a policy document, “Framework for Contaminated Land”, in November 1994. This emphasised a number of central objectives that have guided UK policy on contaminated land, namely:

- Prevention of future pollution;
- Sustainable development having regard to the precautionary principle;
- A ‘Suitable for use’ approach to land remediation.

Eventually, after lengthy consultation, a new legal framework for the control of specific threats to human health or the environment from existing land contamination was brought into force in Scotland on 14\textsuperscript{th} July 2000. Part IIA of the Environmental Protection Act 1990 (inserted by Section 57 of the Environment Act 1995) provides this new legal framework. The Scottish Executive Circular 1/2000, Contaminated Land, is also vital to the working of the new regime. It contains some six Annexes, the most important of which is Annex 3. This contains the statutory guidance in accordance with which enforcing authorities are required to act.

Scottish Executive Sustainable Development Policy

As the Scottish Executive point out in their sustainable development policy, contaminated land is an example of our failure in the past to move towards sustainable development. The Scottish Executive intends to prevent the creation of new contamination in the first instance, through regulation and licensing. Secondly, by addressing historical contamination, it aims to deal with land already contaminated. This is reflected in the statement of Government policy, which forms Annex 1 to the Circular. This statement seeks to set the new provisions in the overall context of current Government thinking on sustainable development.
As paragraph 6 points out, the existence of contamination presents its own risks to sustainable development:

(a) it impedes social progress, depriving local people of a clean and healthy environment;
(b) it threatens wider damage to the environment and to wildlife;
(c) it inhibits the prudent use of land, particularly by obstructing the recycling of previously developed land and increasing development pressures on Greenfield areas; and
(d) the cost of remediation represents a high burden on companies, home and land owners, and the economy as a whole.

In this context, the Scottish Executive's objectives with respect to contaminated land are threefold:

(a) to identify and remove unacceptable risks to human health and the environment;
(b) to seek to bring damaged land back into beneficial use; and
(c) to seek to ensure that the cost burdens faced by individuals, companies and society as a whole are proportionate, manageable and economically sustainable.

These three objectives feed into the ‘suitable for use’ approach, which the Government considers the most appropriate way to deal with our historic legacy of contaminated land, in a way that takes account of environmental, social and economic objectives.

The ‘suitable for use’ approach focuses on the assessment of risks on a site-by-site basis and consists of three elements:

(1) ensuring that land is suitable for its current use;
(2) ensuring that land is made suitable for any new use, as planning permission is given for that new use, and;
(3) limiting requirements for remediation to the work necessary to prevent unacceptable risks to human health or the environment in relation to the current use or future use of the land for which planning permission is being sought.

There will be few cases where land cannot be restored to some beneficial use. However, the actual or potential existence of contamination on a site can inhibit the willingness or ability of a developer to do so.

The Scottish Executive therefore is acting in three specific ways to overcome the potential obstacles to the redevelopment of land affected by contamination, by

(1) providing public subsidy (funding is made available through Scottish Enterprise and the local enterprise network to support site redevelopment costs for projects aimed at particular social and economic regeneration objectives);
(2) promoting research and development, and;
(3) providing an appropriate policy and legal framework.

The main objective underlying the introduction of Part IIA Contaminated Land regime is to provide an improved system for the identification and remediation of
land where contamination is causing unacceptable risks to human health or the wider environment, assessed in the context of the current use and circumstances of the land.

The Scottish Executive have also stated that the following objectives are just as important:

- improving the focus and transparency of the controls, and ensuring authorities take a strategic approach to the problem;
- enabling all problems resulting from land contamination to be handled as part of the same regulatory process; rather than by separate regulatory action to protect human health and the water environment;
- increasing the consistency of approach taken by different authorities; and
- providing a more tailored regulatory mechanism, including liability rules, which is better able to reflect the complexity and range of circumstances found on individual sites.

Following its implementation, the Scottish Executive considers that the improved clarity and consistency of the new regime will facilitate an important secondary objective of encouraging voluntary remediation.

**General Policies of Comhairle nan Eilean Siar**

As a local authority Comhairle nan Eilean Siar has a significant role to play in implementing actions and policies that will influence the long-term sustainability and quality of life within the islands. The Comhairle has endeavoured to ensure its policy decisions and services complement sustainable development within its area. This commitment to sustainable development and a sustainable environment is clearly expressed within the Comhairles’ Corporate aims and objectives;

**The overall mission of the Comhairle is to;**

“Sustain and improve the quality of life for all people in the Western Isles, respecting the cultural and religious traditions”

The Comhairle will achieve its mission by implementing policies that will;

- result in prosperous communities;
- facilitate community well being, and
- achieve capable and sustainable communities.

This strategy is set within the context of the Corporate Plan of Comhairle nan Eilean Siar, the emerging Community Plan and Structure Plan. The Structure Plan is at the early consultation stage and will be subject to change following consultation and comment from the Scottish Ministers.

The Structure Plan provides a land use framework for sustaining the communities of the Western Isles. This will be achieved by setting policies that;

- promote sustainability and improved quality of life;
- encourage population retention, inward investment and address the imbalances in the demographic structure; and,
- help support those who wish to live, work and invest in the Western Isles.
The structure plan provides the land use framework within which other strategies including the Community Plan, the Quality of Life Initiative (Agenda 21), the Housing Plan, the Community Safety Plan, and Community Well Being partnership operate.

It aims to create a shared vision of how the people in the Western Isles can work together to develop a prosperous future, sustainable communities and a healthy environment. Importantly, the Comhairle’s Structure Plan recognises that issues affecting non land use issues also have to be addressed in order for it to be effective and to that end it identifies some of these matters. As a corporate document the Structure Plan provides a framework with which the Comhairle can make an active contribution to achieving the aim of sustainable development across all spheres of it’s service provision. **The implementation of the contaminated land strategy will play an important part in this respect.**

The Structure Plan highlights a number of strategic issues and presents a vision founded on three interdependent principles of sustainable development. It identifies sustainable objectives, which will directly interact and influence the implementation of the contaminated land regime.

Within the broader context of the community supports a partnership approach to policy formulation. Importantly this is reflected in the emerging Community Plan for the Western Isles, which is a policy document drafted by the local authority and other local agencies, aimed at promoting a shared vision for promoting the well being of the Islands.

The Western Isles Community Planning Forum recognises the Islands internationally acclaimed environmental heritage as one of the area’s key economic and social assets, and that the unique cultural traditions of the Western Isles have attracted a great deal of positive comment and can provide enormous economic advantages.

The Partnership’s vision for the Western Isles is of a prosperous, inclusive and healthy community with a diversified sustainable economy and respecting the environmental and cultural heritage of the Islands. To achieve this vision, it has identified a number of strategic themes and shared priorities for the Islands. Namely, prosperous communities, community well being, community health, capable and sustainable communities, and education and governance.

These strategic themes and shared priorities have a commitment to sustainable development by focussing on the long term needs of the area. The Community Plan represents a local strategy to deliver this. Within this context, the contaminated land regime has an important complementary role, in that it will help to protect public health, the Islands environmental stature, and as such will make a significant contribution to the Partnership’s vision for the Western Isles.

**Definition of contaminated land**

The term “Contaminated land” is used in a specific sense in Part IIA of the Environmental Protection Act 1990. The definition is given at section 78A(2) and is based on two main criteria; significant harm and the pollution of controlled waters.
Contaminated land is “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

(a) POLLUTION OF CONTROLLED WATERS is being, or is likely to be, caused.”

The legislation effectively makes an implicit distinction between land that is contaminated, and land which is so contaminated that it requires clean-up in the public interest.

The concept of risk assessment is fundamental to the determination of whether land is "contaminated land". In particular, the guidance applies existing principles of considering whether there is a contaminant, a relevant receptor (target), and a possible pathway between the two. The contaminating substances in question are the potential source of harm, and the receptor (target) is the living organisms, ecological systems or property which may be harmed, or the controlled waters which may be polluted. The pathway is the route or means by which the receptor is being exposed to or affected by the contaminants, or by which it could be so exposed or affected. The guidance terms the relationship between the contaminant, the pathway and the receptor as “a pollutant linkage” and is represented diagrammatically below in figure 1:

- **FIGURE 1**: “A pollutant linkage” Source-Pathway-Receptor relationship

If the three components of the pollutant linkage exist, a risk assessment will be undertaken to determine the likelihood of harm being caused and the likely nature and extent of the harm caused if the predicted event actually occurred. The source can be any substance and is defined as meaning: “any natural or artificial substance, whether in solid or liquid form or in the form of a gas or vapour”.

However, Part IIA does not apply to harm or to pollution of controlled waters so far as this is attributable to radioactivity possessed by any substance. Where a radioactive substance has other harmful properties, such as toxicity, Part IIA will be applicable in relation to those properties. Whilst the Government has indicated that it views Part IIA as providing a suitable basis for dealing with radioactive contamination on old industrial sites, it considered that changes to the detail might be required in view of the particular scientific problems involved. A consultation paper published in February 1998, *Control and Remediation of Radioactively Contaminated Land*, discusses the proposed extension of the regime to such land; the enforcing authority would be the Scottish Environment Protection Agency (SEPA).

The list of receptors is given in Appendix I and includes human beings, specified designated ecological sites, property and controlled waters. If the pollution linkage chain is broken the land cannot be designated contaminated land.
The statutory definition of contaminated land is based upon the principles of risk assessment, which requires that a pollutant linkage is identified and the significance of this linkage is risk assessed.

Risk is considered for the purposes of statutory guidance as a combination of:

(a) the probability, or frequency, of occurrence of a defined hazard (for example, exposure to a property of a substance with the potential to cause harm); and
(b) the magnitude (including the seriousness) of the consequences.

The authority should regard as significant only harm which is both:

(a) to a receptor of the type listed in Appendix I, and;
(b) within the description of harm specified for that type of receptor as listed in Appendix II.

In each case, it is clear that the intention is to confine the scope of the legislation to what are clearly, and by any standards, serious effects. So far as humans are concerned, the types of harm in question are death, disease, serious injury, genetic mutation, birth defects, or reproductive impairment. “Disease” is to be taken to mean unhealthy condition of the body or part of it, and by way of example can include cancer, liver dysfunction, or extensive skin ailments, but not mental illness, except insofar as it is attributable to the bodily effects of a pollutant on the person concerned.

The assessment of risk at specific sites, within the context of the contaminated land regime, will rely on the use of risk assessment methodologies. There are a number of risk assessment models available, which address specific receptors. Further development of models for use within the regime is anticipated. Target or guideline values used in such assessments are required to be risk based. The use of generic levels in assessing site-specific land contamination is not appropriate.

The definition of contaminated land has been clearly defined by statutory guidance and as such, ensures that the regime is targeted at those sites which give rise to serious risk to human health, property, the environment or controlled waters, rather than all land which is subject to contamination.
Role of Enforcement Authorities

Local Authorities
The primary regulatory role under the contaminated land regime rests with local authorities, whose main responsibilities are set out below:

Regulatory role of Comhairle nan Eilean Siar under Part IIA

- to adopt and publish a strategy for the identification of contaminated land within its area by 14th October 2001.
- to inspect its area to identify statutorily defined contaminated land (Appendix III).
- to determine whether any particular site is contaminated land and where appropriate, designate it as a “Special Site”.
- act as the enforcing authority for sites identified as contaminated land which are not designated as Special Sites (SEPA will act as enforcing authority for Special Sites).
- establish who should bear responsibility for the remediation of sites determined as contaminated land.
- decide on remediation measures required and ensure that such remediation is undertaken, either by agreement or where necessary by serving a remediation notice. Under certain circumstances it may be necessary for the Comhairle to carry out the remediation works itself.
- apportionment of costs of works either subject to notice, or carried out by the Comhairle, depending on liability.
- to record certain prescribed information about their regulatory actions on a public register.

Within Comhairle nan Eilean Siar the responsibility for its regulatory role rests with the Director for Sustainable Communities who will designate a lead Officer for Contaminated Land. The lead Officer for Contaminated Land will be based at Sustainable Communities, Sandwick Road, Stornoway, Isle of Lewis. This Officer will co-ordinate the development and implementation of the Comhairles’ strategic response to the contaminated land regime, oversee the development of internal procedures, and chair the Contaminated Land Working Group.

In carrying out its responsibilities, the Comhairle will be required to consult and liaise with organisations and individuals including other regulatory bodies, organisations representing special interests, and individuals who are site owners, appropriate persons or members of the public.

Comhairle nan Eilean Siar will adopt formal liaison procedures as necessary and will endeavour to progress remediation of sites through voluntary agreement. Responses to enquiries will, as far as possible, be comprehensive and in making decisions the Comhairle will reflect its strategic responsibilities and display openness and transparency.

Public Registers
Comhairle nan Eilean Siar is required to maintain a public register containing prescribed information relating to its functions under Part IIA. The duty is subject to restrictions on including information on two grounds, national security and confidential commercial information. Additionally, SEPA is required to publish reports on the state of contaminated land generally.
The matters to be contained on the public register are listed below:

- identification notices served by the enforcing authority;
- remediation notices served by the enforcing authority;
- appeals against remediation notices;
- remediation statements or remediation declarations under section 78H;
- appeals against charging notices;
- notices by the local authority affecting designation of land as a special site;
- notices of the Secretary of State effecting designation as a special site;
- notices terminating the designation of land as a special site;
- notifications of what has been done by way of remediation by a person served with a remediation notice or who is required to publish a remediation statement;
- notification given to owners or occupiers of what has been done on land by way of remediation;
- any other matters relating to contaminated land prescribed by the Secretary of State.

It will be appreciated from this list that the register is not intended to be a register of sites that are, or may be, contaminated as such. Rather, it is a register of what is effectively the enforcement history of a site once a remediation notice has been served (or in the case of special sites, their prior designation).

Comhairle nan Eilean Siar’s contaminated land public register must be kept at the local authority’s principal office, and as such will be kept and maintained by The Department for Sustainable Communities, Sandwick Road, Stornoway, Isle of Lewis, HS1 2BW.

The register will be available for public inspection during normal office hours. Copies of entries on the register can be obtained from Comhairle nan Eilean Siar, for which a reasonable charge will be made.

Scottish Environment Protection Agency (SEPA)

SEPA has an important complementary regulatory role within the contaminated land regime, and its responsibilities include:

- providing local authorities with assistance and advice in identifying contaminated land, including site specific guidance.
- acting as the enforcing authority for any land designated as a special site.
- preparation and publication of the state of contaminated land report.

In carrying out its responsibility for preparing and publishing the state of contaminated land report SEPA will require information from local authorities on their activities within the contaminated land regime. Liaison between the Comhairle and SEPA will determine the extent and nature of such information.

Annex 4 to Scottish Executive Circular 1/2000, which constitutes a Guide to the regulations, indicates three main groups of cases where descriptions of land have been prescribed as special sites:
• water pollution cases, in particular those where SEPA will have concerns under other legislation, on drinking water, surface water quality, and groundwater;
• industrial cases, where the land in question is being or has been used for specific types of activities that either pose particular remediation problems or are subject to other statutory regimes, for example, oil refining, explosives, integrated pollution control, nuclear sites;
• defence cases, designed to ensure that SEPA deals with most cases where land involves the Ministry of Defence Estate, on the basis that SEPA is best placed to ensure uniformity and appropriate liaison with MoD across the country.

It remains the task of the local authority to decide, in the first instance, whether land within the description of a special site is contaminated land or not. **It is not necessarily the case that special sites represent the most severely contaminated sites rather, that SEPA is best placed to be the enforcing authority.** Sites may also be assigned special site status on the basis of duality of control. However, SEPA’s views will be sought at the earliest opportunity.

**Interactions with Other Regulatory Regimes**

**Planning & Building Control**

Contamination may threaten public safety, the natural and built environment, and act as a barrier to economic activity. A key role of the planning system with regard to contaminated land, is to ensure that land is made suitable for any new use, as planning permission is given for that new use. Therefore, whether confirmed or suspected, contamination is a material consideration. It should be considered one of the factors in the preparation of development plans, as well as in the determination of planning applications.

The planning authority should satisfy itself that the potential for contamination is properly assessed, and the development incorporates any necessary remediation. Where necessary, any planning permission should include appropriate site investigations and remediation conditions. Under the “suitable for use” approach, risks should be assessed, and remediation requirements set, on the basis of both current use and circumstances of the land and its proposed new use. In addition to considering the risks from existing contamination of the site, it is also the responsibility of the planning authority to consider the potential risk from development works, and/or a proposed use, to contaminate a site or surrounding area. Where new development is taking place, it will be the responsibility of the developer to carry out the necessary remediation.

Guidance to planning authorities is set out in Planning Advice Note (PAN) 33-Development of Contaminated Land, and PAN 51-Planning and Environmental Protection. It is likely that revised planning guidance will amplify PPG23, Planning and Pollution Control, on the relationship between Part IIA and planning powers.

**Planning law is concerned with ensuring that the risks consequent on developing and changing the use of the land are properly identified and addressed. Part IIA is concerned with ensuring that unacceptable risks arising from the land in its current use are removed, and allocating and apportioning, the liability for the costs of doing so.**

The implementation of the contaminated land inspection strategy will facilitate the identification of potentially contaminated land for the purposes of the planning process.
In addition to the planning system, the Building Standards (Scotland) Regulations 1990 may require measures to be taken to protect the fabric of new buildings, and their future occupants, from the effects of contamination. Part G of the Technical Standards for Compliance (Preparation of sites and Resistance to Moisture) gives guidance on these requirements.

**Pollution of Controlled Waters**

The Control of Pollution Act 1974 (as amended) gives SEPA powers to take action to prevent or remedy the pollution of controlled waters. Enforcement action may be instigated against anyone who has caused or knowingly permitted the potential pollutant to be in the place from which it is likely to enter controlled waters, or to have caused or knowingly permitted a pollutant to enter controlled waters.

There is an obvious potential for overlap between these powers and Part IIA regime in circumstances where substances in, or under land are likely to enter controlled waters.

SEPA are actively working with the Scottish Executive to develop a policy on enforcement procedures, with particular reference to cases where there is an overlap with the Part IIA regime.

No remediation notice can require action to be carried out which would have the effect of impeding or preventing a discharge into controlled waters for which a “discharge consent” has been issued under Part II of the Control of Pollution Act (COPA)1974.

**Integrated Pollution Prevention and Control (IPPC)**

The Environmental Protection Act 1990 gives SEPA the power to take action to remedy harm caused by a breach of IPPC controls and this could apply to cases of land contamination arising from such causes.

The Pollution Prevention and Control (Scotland) Regulations 2000 require the submission of reports characterising the condition of sites subject to IPPC, in order to identify whether the condition of the site has deteriorated whilst operated under a PPC permit. The system will limit the likelihood of such sites falling within the contaminated land regime.

**Waste Management Licensing**

There are three areas of potential interaction between the Part IIA regime and the waste management licensing system under Part II of the Environmental Protection Act 1990.

Firstly, there may be significant harm or pollution of controlled waters arising from land for which a site licence is in force under Part II of Environmental Protection Act 1990. Where this is the case, the land cannot formally be identified as “contaminated land” and no remediation notice can be served. Action to deal with a pollution problem would be enforced through a “condition” attached to the site licence. However, Part IIA does apply if the harm or pollution on a licensed site is attributable to a cause other than a breach of the site licence, or in carrying on of an activity authorised by the licence in accordance with its terms and conditions.

Secondly, the local authority cannot serve a remediation notice in any case where the contamination results from an illegal deposit of controlled waste. In these circumstances,
SEPA has powers to remove the waste, and to deal with the consequences of its having been present.

Thirdly, remediation activities on contaminated land may themselves fall within the definition of “waste disposal operations” or “waste recovery operations”, and will be subject to waste management licensing requirements.

Statutory Nuisance

As a result of the introduction of the contaminated land regime, most land contamination issues will be removed from the scope of the Statutory Nuisance provisions contained within the Environmental Protection Act 1990. Any matter which would otherwise have been a statutory nuisance will no longer be treated as such, to the extent that it consists of, or is caused by, land “being in a contaminated state”. The definition of land which is “in a contaminated state”, and where the statutory nuisance regime is therefore excluded, covers all land where there are substances in, on, or under the land which are causing harm or where there is the possibility of harm being caused.

It should be noted that the statutory nuisance regime will continue to apply to the effects of deposits of substances on land which give rise to such offence to human senses (such as unpleasant smells) as to constitute a nuisance, since the exclusion of the statutory nuisance regime applies only to harm and the pollution of controlled waters.

Other Regimes

Other regimes which may have implications for land contamination, or which may overlap with Part IIA include health and safety, landfill tax, major accident hazards, and food safety.
Chapter 3

Characteristics of Comhairle nan Eilean Siar’s Area

Location

The Western Isles (Figure 2 Map A) are located to the north-west of mainland Scotland. The Islands measure 210km in length from the Butt of Lewis in the north to the small uninhabited Islands of Berneray and Mingulay at the southern extremity. The Islands are 60km at the widest point, with the Clisham in North Harris being the highest peak at 799 metres.

![Figure 2: Map A - The Western Isles.](image)

General Geography

The landscape of the Western Isles is a combination of hills, moorland and machair, with a rural settlement pattern based on traditional crofting communities. Over 75% of land is in crofting tenure and there are approximately 6,000 crofts throughout the Islands. The coastline of the Western Isles area totals approximately 2,400 Km². The total area of the Western Isles is estimated at 2898 Km² excluding inter-tidal land.

Climate of the Western Isles

The Western Isles enjoys a Temperate Maritime Climate – a climate without extremes, modified by the effect of the ocean. Weather systems in the Northern Hemisphere in general move from west to east, so the prevailing weather in the Western Isles follows a 5000 Kilometre sea track, all the way from the eastern seaboard of the United States. The warm ocean current known initially as the Gulf Stream and further north as the North Atlantic Drift flows from the Gulf of Mexico past the Islands ensuring the temperatures never vary by extremes, but also providing a plentiful supply of moisture ensuring the Islands reputation for rain.
The Western Isles are at high latitude, so seasonal variations in day length are very noticeable. Wind is the element most associated with the Western Isles. Mean monthly wind speeds range from about 12 knots (13 mph) in July/August to about 16 knots (18 mph) in December/January, though daily mean wind speed over 30 knots (35 mph) with gusts in excess of 50 knots (58 mph) are not uncommon, even occasionally during the summer months. The highest gust recorded at Stornoway in recent years was 98 knots (113 mph) in February 1962.

If a high pressure system settles over Scandinavia, cold dry easterly winds, often persisting for a week or two, are a common feature during April and May. From mid–July there is a tendency for a mobile south-westerly to westerly airstream to become established, characterised by moist but mild conditions carried along on a succession of Atlantic frontal systems. As autumn progresses into winter the south-westerly winds continue but with a tendency for the winds to swing more frequently to north-westerly or north bringing heavy showers, often of hail or even snow after the turn of the year.

**Coasts and Machair Land**

The extensive coastline of the Western Isles is a dominant feature of the natural landscape. Generally speaking the east coast tends largely to be cliff-bound, with the deep waters of the Minch close inshore, whilst much of the west coast has gently sloping sandy beaches. The beach material is derived both from glacial debris and crushed shells and is constantly moved along by the persistent Atlantic swell. Immediately behind the sandy foreshore there is commonly a narrow belt of dunes separating the coastal edge from the interior of the Islands. The vegetation of these dunes is dominated by the tough Marram grass which helps to stabilise the constantly shifting sands.

Constant erosion and deposition by countless years of onshore winds and tides has created the low, sandy coastal plain, known as machair, which lies further inland. In the Western Isles the machair areas lie along the west coast, particularly in the Uists and Benbecula, where nearly 6,000 hectares of machair make up about 8% of the land area.

**Peatland and Moorland**

A large proportion of the inland areas of the Western Isles consists of moorland, characterised by a blanketing accumulation of nutrient poor peat. This is especially the case in Lewis, where it has been estimated there is a covering of peat nearly 595 Km² and averaging a depth of 1.5m. Drainage of the moor varies from area to area, with the result that peat tends to accumulate faster in rock depressions and slower on knolls, giving rise to the distinctive undulating appearance of much of northern Lewis. Most of the peatland of the Western Isles is divided up into common grazing areas that are allocated to individual crofting townships and managed by an elected local committee.

In addition to the utilisation of the moor for grazing, each croft, and many of the non-crofting families, have access to a small area of moor for cutting peat. This is largely done manually using a spade-shaped implement, and once dried the peat is transported home for use in domestic cooking and heating. The rough topography and uneven depth of peat does not permit large-scale commercial peat extraction in the Western Isles.

**Upland Areas**

There are isolated hills in the Uists and Barra, but the largest continuous upland area is formed by the hills of South Lewis/North Harris, stretching in a belt from the lochs in the east to the bold bare tops of Uig in the west of the island. The highest summit in the islands, the Clisham (799m) lies within this range. Throughout most of the uplands, the
dominant land use is unimproved grazing for sheep and/or deer. In a few localities the hill land is managed for grouse shooting by the annual burning of different strips of heather.

Flora and Fauna

The flora of the Western Isles is restricted by their geology, climate and geographical position. Almost completely composed of impermeable Lewisian gneiss, they support only those acid loving plants which can cope with an oceanic climate and exposure to wet salty gales. Where these westerly winds have blown shell sand over peat a greatly enriched flora exists on the resultant machair. One of the botanical wonders of the Islands is the golden spread of primroses by the airfield on Barra. Elsewhere the machair is noted for vast numbers of orchids and associated vegetation. Three heathers, ling, bell heather and cross-leafed heather, dominate the moorland vegetation which does hold, however, large numbers of insectivorous plants such as sundews.

Formerly covered by discontinuous scrub moorland, the Islands are now devoid of natural woods except for pockets on inland cliffs and on freshwater islets, secure from fire and sheep. The most important mixed wood is that around Lews Castle at Stornoway, dating from the mid 19th century. A large part of the Western Isles is covered by water and bog and both sustain important communities of peat and wetland vegetation.

There are only two native land mammals in the Western Isles, red deer and otter. The rabbit, blue hare, hedgehog, brown and black rat, feral cat, polecat and mink were introduced by man. The only reptile is the slow-worm and no native amphibians are known. Any frogs, newts or toads found have been introduced. Pipistrelle bats occur in and around Stornoway.

Marine mammals include the grey and common seal and many species of whale, dolphin and porpoise. Freshwater fishes present include salmon, sea trout, brown trout, Arctic char, rainbow trout, European eel, sticklebacks, thick lipped mullet and flounder.

Three hundred and twenty seven species of birds have been recorded in the Western Isles and more than 100 breed. The Islands provide a natural flyaway for migrating land birds to and from their Arctic breeding grounds and a refuge for windblown vagrants from America and Northern Europe. Golden eagles inhabit the uplands of Lewis, Harris and North and South Uist.

Neighbouring Local Authorities

The nearest Mainland Councils to the Western Isles are Highland Council and Argyll and Bute Council. The Orkney Islands are the nearest Island Council areas to the Western Isles.

Influences on Strategy

Like all other local authorities, Comhairle nan Eilean Siar is democratically accountable. The strategic development of its response to the contaminated land regime, and the implementation of its strategy, will be influenced by the population of the Western Isles and communities through their elected representatives.

The provision of services through a number of Comhairle Departments, with roles in the development and implementation of the Strategy will have significant and possibly unique influences on the Strategy.

Airborne deposition of contaminants will be an important potential pollutant linkage to consider. Wind direction has perhaps the greatest impact on air quality at a given point, for changes in wind direction have a great effect on the pollution received from a source.
The landscape of the Western Isles has a distinctive geography that will have a major influence on the practicalities of carrying out investigations and site inspections and as such will influence staff and resource deployment. The logistical difficulties of transporting staff between communities and islands will further influence staff and resource deployment.

Land being contaminated by neighbouring authorities is thought to be remote.

**History**

The Western Isles have been occupied for at least five thousand years, and possibly as much as eight thousand years. The remains of this history are visible in the landscape about us; the very ecology is the result of generation after generation of human activity, clearing the woodlands, farming the land, managing the drainage pattern, hunting, gathering, fishing and farming. Prehistoric ruins stand visible in the machair and on the moors; prehistoric field walls underlie later fields. Our ancestors’ cemeteries and settlements also erode out of the coastline.

During the first half of the twentieth century, political changes led to a series of laws extending the rights of crofters to secure tenancies. Cleared land was purchased by the government and re-crofted, and landowners were encouraged to re-establish cleared townships. In Lewis and Harris, the strength of the Harris Tweed industry, sustained the crofting economy, as did the fishing industry.

In the latter years of the twentieth century, elements of the earlier life still survive within a modern Island society. Most of the population is still in the rural areas. Many people have croft tenancies, and manage livestock, though cultivation is much decreased. Peat is still cut, as it has been for four thousand years. However, there is now a move towards other forms of fuel for domestic heating. Many archaeological monuments have been recognised as being of national and international importance.

**Industrialisation**

Over the passage of time industrial processes tend to have been focused within the major settlements. The greatest concentration of land affected is in and around the Old Burgh of Stornoway. The Harris Tweed industry has been one of the principal industrial processes along with development related to the fishing industry, with fish and shellfish processing persisting at a significant scale to the present day. In addition a large steel fabrication yard was set up at Arnish Point in the 1970’s and was the focal point of the Islands contribution to oil fabrication work for around 25 years.

The need for economic activities relating to natural resources e.g. seaweed, resulted in industrial processes (past and present) based in remoter parts of the islands. One of the slightly newer operations is fish farming that developed in large scale in the 1980’s.

Other processes likely to affect land are agricultural/crofting practices, and shipping/marine activity. Small scale industrial activities may have also impacted on land for example through lime and kelp burning, peat oil extraction, fish salting, dumps of fuel oil from garages and stores, and any biological hazards e.g. animal burials.

Finally, looking towards the future, a process that may impact upon the land is the possible development of oil and gas west of the Hebrides.

**Industrial and Economic Perspective**

The industrial base of the Islands is very narrow, being represented broadly by Harris Tweed manufacture, fishing, fish processing, agriculture and construction. Retail, tourism,
professional and public providers dominate the service industries. Employment is significantly dependent on traditional primary industries of fishing (approximately 40 fishing boats working out of Stornoway harbour), fish processing and increasingly public sector service providers. The Rural Scotland Price Survey of winter 1998-99 found that of 80 areas in Scotland, generally costs and prices in the islands are higher than on the mainland, largely because of the additional burdens imposed by the sea crossings.

The highest figures were in Tarbert, in terms of total expenditure on a range of domestic necessities. Stornoway, however, ranked with Grampian as being among the areas where the cost of the standard items was lower. Despite the fragile nature of the area economy, the cultural and social infrastructure remains buoyant.

**Industrial Process Operators**

There are currently 10 authorised process operators in the Western Isles, 1 Part A process and 9 Part B processes. There are no heavy industrial areas with most industrial activities being centred in areas of higher population and in particular, Stornoway. SEPA regulate these industrial activities.

**Military**

The Western Isles have had a continuing association with the military, particularly in training, strategic deployment, and in providing personnel and recruits for all the services in campaigns and wars fought throughout the last two Centuries. There are a number of in-use and disused army installations on the Islands.

**Influences on Strategy**

The Western Isles are blessed with an archaeological heritage that is remarkably well preserved. Archaeological remains of all periods occur throughout the Western Isles, and are important as both potential sources and receptors. Pre-industrial archaeological remains are less likely to act as sources but due to their nature, they are potential receptors within the contaminated land regime.

Historic and more recent industrial practices can potentially act as sources of pollutants and contamination.

Military activity throughout the Western Isles has the potential to provide both sources of contaminants and receptors. Areas occupied or used by military forces may also contain valuable environmental receptors, and may be within close proximity of controlled waters.

**Geology**

The following sections give a general overview of the regional geology and its implications for contaminated land. However, the geology of the Western Isles is complicated and for a thorough review the reader is directed to the British Geological Survey (BGS) Regional Geology Guides.

**Solid Geology**

This section refers to the complex strata of rock found underneath the soils. The predominant rock type is a metamorphic rock known as Lewisian gneiss, which takes its name from the largest island area in the archipelago. Geologists have dated this rock at nearly 3000 million years, making it the oldest rock formation in Britain. The Western Isles as a complete structural unit, is believed to have been separated from the Mainland in early Pliocene times when, as Western Scotland subsided, the Atlantic waters invaded the area now known as the Minch. However, the division of this unit into the islands of today...
Contaminated Land:
Implementation of Part IIA of the Environmental Protection Act

is thought to have resulted from a rise in sea level at the end of the Ice Age, about 10,000 years ago.

Unaltered sedimentary rocks are limited to an area north and east of Stornoway. These are mainly sandstones and conglomerates and are believed to date from Triassic times (about 200 million years).

Igneous rocks are mainly found as intrusive dyke swarms, many of which form an extension of the Tertiary igneous complexes of Skye and Mull. Most of the dykes are composed of basalt and are aligned in a NW-SE direction. Their relative softness has resulted in the erosion of a large number of precipitous coastal inlets or geos. The small stacks known as the Maddies, that guard the entrance to Lochmaddy harbour are thought to be the remnants of an intrusive dolerite sill.

The most important structural feature in the Western Isles is the Outer Hebrides thrust zone. The thrust plane, which marks the boundary between moved and unmoved rock, stretches for almost 200 km from Barra to Northern Lewis. Movement along the thrust resulted in the formation of a wide range of cataclastic rocks. Perhaps the most interesting of these is pseudotachylite, a glassy rock formed by frictional melting, which is well exposed near Greian on the Isle of Barra. The following table shows the main rock types of the Western Isles.

Table 2: Solid Geology of The Western Isles Area, falls into five general groups of main elements.

<table>
<thead>
<tr>
<th>Main Elements</th>
<th>Description</th>
<th>Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foreland</td>
<td>Basement rock, product of repeated deformation and metamorphism</td>
<td>Precambrian crust of uncertain origin</td>
</tr>
<tr>
<td>Lewisian</td>
<td>Quartzites, sandstones siltstones, limestones and others</td>
<td>Cambro-Ordovician (430-600 Ma)</td>
</tr>
<tr>
<td>Cambro-Ordovician</td>
<td>Sandstones, schists, mica, and metamorphosed shales and siltstones</td>
<td>Silurian/Devonian (c.400 Ma)</td>
</tr>
<tr>
<td>Moine Thrust Zone</td>
<td>Metamorphosed sandstones, shales, mudstones, granite (post-metamorphic)</td>
<td>Post-Cambrian/ pre-Silurian (c.500 Ma)</td>
</tr>
<tr>
<td>Caledonides</td>
<td>Metamorphosed sandstones, shales, limestones, granite (post-metamorphic)</td>
<td>Cambrian (c.600 Ma)</td>
</tr>
<tr>
<td>Moine Schists</td>
<td>Sandstones, mudstones, shales and conglomerates</td>
<td>Devonian (350-400 Ma)</td>
</tr>
<tr>
<td>Dalradian Schists</td>
<td>Volcanic sequences (primarily basaltic) underlain by Triassic and Jurassic rocks</td>
<td>Tertiary (c.60 Ma)</td>
</tr>
<tr>
<td>Stornoway Beds</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lavas</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Hydrogeology

Different rock types present potential pathways for both natural and artificial contaminants. An aquifer is a subsurface layer or layers of rock or other geological strata
of sufficient porosity and permeability to allow either a significant flow of groundwater or the abstraction of significant quantities of groundwater. Aquifers represent a zone of saturation and that perched aquifers can occur in the unsaturated zone. They are classified as highly, moderately or weakly permeable aquifers in terms of their hydraulic characteristics (fissured, fissure-porous and porous) and rock make up. It is worth mentioning that weakly permeably aquifers, although low yielding, can provide water for private water supplies and will not be discounted in considering pollution of controlled waters and harm to human health.

The unsaturated zone is that part of the aquifer which lies above the water table. It can play an important role in attenuation of pollutants, through physical, chemical and biochemical processes, and by acting as a delay mechanism. Travel times through the unsaturated zone can vary depending on the geology and the rainfall recharge. Cracks in the aquifer will allow faster movement whereas rocks with a predominant intergranular flow may slow movement down significantly. The important factors that could be deemed to pose a threat to aquifers are; physical disturbance, waste disposal on land, contaminated land, disposal of sludges and slurries to land and discharges to underground strata.

There is only one major aquifer in the Western Isles, the Stornoway Beds and this has been classified as highly permeable. This formation consists of conglomerates and coarse grained sandstones of the Permo Triassic age. These comprise an outlier of limited extent, cropping out on the isthmus separating the Eye Peninsula from the town of Stornoway, and northwards along the east coast of the island. This formation is capable of yielding good quality groundwater, and a number of wells are indicated on the 1:25,000 Ordnance Survey Map. It is important therefore that these important receptors are protected.

The groundwater vulnerability map of Scotland classifies the Lewisian as weakly permeable, the Stornoway Beds as highly permeable and the machair lands as moderately permeable. Porous substrata, such as the Stornoway Beds have the potential to allow substances to permeate to ground waters, with the additional possibility of being transported to other receptors.

**Superficial Deposits**

The Western Isles area has been extensively shaped and formed by glacial events, leaving large amounts of glacial deposition in some areas, while having left other areas devoid of much drift through the scouring effect.

The British Geological Survey (BGS) were commissioned by Comhairle nan Eilean Siar, Scottish Natural Heritage and LEADER to undertake a reconnaissance survey of sand and gravel resources in the Outer Hebrides in 1993. The technical report explained that, the low-lying windswept, coastal sandy plains (machairs) that are widespread in the Western Isles, together with sand dunes and hillocks, form up to 10% of the land area. They are best developed along the western coasts of the Uists. The sand that builds the machair consists of a mixture of siliceous and calcareous fractions in varying proportions. The siliceous fraction has been derived mostly from till and glaciofluvial sediments deposited on the offshore platform – this is also the source of the shingle and cobbles which form long ridges at the back of many of the beaches.

A complete picture of Quaternary sediments for the Western Isles is not available. However, the BGS has indicated that they intend to survey the Western Isles and expect to have this completed by 2007-9 and the Comhairle considers this to be very important in terms of the implementation and development of this strategy.
Certain naturally occurring elements and chemicals found in bedrock and soils can pose risks to local receptors given a suitable pathway. These include arsenic, uranium, radium, lead, and some greenhouse gases, including methane, which can be produced naturally in areas such as peat bogs, common in the Western Isles.

Geology, both solid and quaternary, may be considered as important pathways and/or receptors by virtue of their capacity to hold water, and may by containing naturally occurring “contaminants”, also be considered as potential sources.

**Influences on Strategy**

Geology has implications in all aspects of land contamination and to a large extent will dictate whether pollutants remain in situ or are able to migrate through the strata, potentially reaching water sources or other receptors.

Aquifers will be the main types of solid geology to be considered within the strategy as these are capable of storing and transporting controlled waters. They can both be a receptor and a pathway in terms of the contaminated land regime. Identification of important and vulnerable groundwaters will be an important consideration within the development and implementation of the strategy.

Information on soils and naturally occurring elements and compounds at some stage may be available through BGS and the MacAulay Land Use Research Institute (MLURI). Both these sources will be pursued in the development of the contaminated land database.

**Community**

**Population**

The population of the Western Isles has fallen steadily during this century to 27,180 (mid-year estimate 2000). Census data from 1991 states the populations in the following inhabited islands of the Western Isles as being: Lewis (population 19,600), Bernera (260), Harris (1,800), Scalpay (380), Berneray (140), North Uist (1,400), Grimsay (200), Benbecula (1,800), South Uist (2,100), Eriskay (150), Barra (1,200), and Vatersay (70).

**Settlements**

Stornoway has a population of around 6,000 and is the largest settlement in the Western Isles. The 5 other main centres of population and human activity are: Tarbert in Harris (480), Lochmaddy in North Uist (260), Balivanich in Benbecula (500), Lochboisdale in South Uist (280), and Castlebay in Barra (540). The rest of the population is spread throughout a series of around 280 scattered crofting townships that are of relatively low population density and are both linear and dispersed in their settlement patterns.

The impact of remoteness on communities outwith the major population centre, in terms of service provision is recognised in the Comhairle’s draft structure plan. The structure plan supports the consolidation of existing settlement hierarchy, while seeking to enhance remote and peripheral areas. The draft structure plan states:

“The Comhairle, along with its Community Planning partners, will give specific consideration to levels of service provision, development opportunities and availability of land development in areas suffering from the impact of peripherality, insularity or remoteness” DM2 Remote and Peripheral Areas.

**Housing**

Housing in the Western Isles is principally of four main types; croft houses, private houses, local authority and Housing Association houses. In 1999, it was estimated that there were approximately 13,400 dwellings.
The vast majority of houses were built after the 1st World War, which gives an indication of the poor standard of housing before that time. A series of initiatives has been undertaken since then to effect improvements in housing standards, with remarkable results. The most recent of these were the Housing Action Areas of the 1980’s that are still helping to improve houses in townships throughout the Islands.

The Structure Plan recognises that the provision of quality housing, social and recreational facilities is as important in the fight against population decline and in developing sustainable communities as the creation of employment opportunities. While the Comhairle is no longer a direct provider of housing (through new builds), it still plays a key role through the provision of housing grants for upgrading of existing properties. The Comhairle also manages over 2000 Comhairle owned stock. The Comhairle works closely with Scottish Homes and local housing associations to find suitable sites and locations throughout the Western Isles.

Importantly, the draft Structure Plan highlights that the provision of adequate housing must be met in a way, which minimises the impact on the environment.

Recreation

The Comhairle accepts that access to good quality social and leisure facilities is an essential factor in retaining the population and attracting inward migration. This is in tandem with the sustainable use of our natural and built heritage resources. The Comhairle recognises issues of land use related to the provision and the importance of safeguarding sports fields and parks from development.

The Comhairle confirms its support for recreational land protection and provision in its draft Structure Plan Policy (HCL4):

"Existing sports and leisure facilities, including public open space, should be safeguarded from development unless acceptable alternative provision can be provided".

Influences on the Strategy

The population of the Western Isles is a major potential receptor within the contaminated land regime. Whilst there is a variety of instances and situations where a pollutant linkage may arise with regard to elements of the population, be it groups or individuals, the initial broad screening for this receptor will be prioritised according to population density.

Generally speaking, areas with high population density are likely to have had an historic association with industrial land use. They have greater numbers of people within proximity to potential sources, and have a greater risk associated with potential hazards. Pollutant linkages are likely to have greater significance in more densely populated areas.

This approach will not exclude the investigation of sites in remoter or less populated areas within the Western Isles, although it may dictate the timescale within which they are conducted.

Economy

Business and industry

The creation of an improved business environment is an important strategic theme within the Comhairle’s Structure Plan. It recognises that the provision for business and industry is closely related to community, environmental and infrastructure considerations. The Comhairle is committed to the creation of a diversified sustainable economy and is focusing on opportunities arising from growth industries such as renewable energy, Information Communications Technology, tourism and fish farming. The fragility of the
Western Isles economy and its dependency on relatively few major employers makes it essential that an opportunity to assist in the new growth of new and emerging industries, as well as existing businesses, is taken.

The Comhairles’ Structure Plan identifies areas for the promotion of business and industrial development in policies reproduced for information in Appendix IV.

**Land Management, Crofting and Bio-diversity**

A major characteristic of agriculture in the Western Isles is its stewardship of the high environmental quality of the area. The Structure Plan seeks to set out policies, which promote and maintain its agricultural and crofting sectors whilst recognising the changing nature of crofting. The Structure Plan supports sustainable land management practices that promote bio-diversity and will advocate the application of agri-environment schemes across the whole of the Western Isles.

It will seek to safeguard agricultural land which although of lesser quality may nevertheless be important locally for the viability of a farm unit or croft. These policies are reproduced for information in Appendix IV.

**Fisheries and Aquaculture**

The sea fishing industry is seeing the increasing importance of shellfish landings, which accounts for around 90% of total Western Isles landings. A significant proportion of shellfish is exported and the value of landings is partly a reflection of the value of sterling.

The most significant change in the composition of the fleet in the last decade has been the decline in the number of boats in the 10 to 15 metre category. This trend reflects the changing economics of inshore fishing and is not unique to the Western Isles. Decommissioning has encouraged retirements and ‘trading down’ to smaller vessels with lower running costs.

Due to the high costs of boats and licences for quota species, new entrants to the industry are mainly in the under 10m sector. The Western Isles has the largest fleet of small vessels of any fishery district in Scotland and is therefore well placed to develop the shellfish and non-quota stocks in inshore waters. Despite the economic pressures on fishing, the total numbers employed in the catching sector have remained fairly stable in recent years. As well as the 680 directly employed in fish catching there are an estimated 300 persons employed in ancillary activities, including 200 engaged in processing and around 100 in other activities such as product marketing, gear manufacture and vessel maintenance and repair.

The fish farming industry in the Western Isles provides around 550 full time equivalent (FTE) jobs. Direct employment, mainly in marine salmon farming, accounts for over 350 FTE jobs while related activities such as processing, marketing and distribution provide around 200 jobs. Due mainly to lower market prices, many smaller companies have been forced out of salmon farming and three companies now account for over 80% of production.

Fishing and aquaculture make a significant contribution to the economy of the Western Isles. These industries account for 15% of the Western Isles GDP. The Comhairle works closely with other agencies and representatives of these industries to ensure sustainable management of fish stocks and of the marine environment. The activities associated with these industries straddle both land and offshore areas and at present the remit of the planning system only covers the landward part of this. However, this situation is changing and offshore issues are increasingly falling within the planning remit.
Recreational fishing is also important to the Western Isles economy and is recognised in the draft Structure Plan.

Tourism

The Western Isles’ unique and attractive environment offers tremendous potential for tourist visitors. The total annual number of visitors to the Western Isles is estimated to be around 95,000, contributing some 30 million to the local economy.

There are obvious linkages between tourism and the environment, culture, language and way of life in the Western Isles. Tourism based on culture, environment and outdoor recreation often attracts people ‘out of season’ thus helping to extend economic activity through more of the year. The Gàidhlig language and Gàidhlig culture is a unique selling point of the Western Isles and the Gàidhealtachd.

The tourism product of the Western Isles relies heavily on the quality of the cultural, natural and built heritage of the islands. These can be utilised in a sustainable manner to the economic benefit of the residents through the promotion of niche tourism packages such as water-based recreation, eco-tourism, genealogy and cultural tourism. As the tourist season is relatively short at present, there is potential to extend it through increased promotion of the area and the provision of indoor visitor facilities. The 2000-2005 Tourism in the Western Isles Strategic Plan seeks to ensure the development of tourism in a sustainable manner that enhances and protects the culture, environment and communities of the Western Isles. Consequently the Structure Plan will support sustainable development that meets these objectives.

Visitors receive their first impression of the Western Isles when they arrive, either by air or sea, at one of the Islands ‘ports of entry’ and often spend a considerable amount of time within these ports. The impact this has on visitors cannot be underestimated and the importance of creating a quality environment, and consequently a pleasurable experience for visitors, is recognised in the draft Structure Plan.

Influence on Strategy

Agriculture, aquaculture, fishing and shooting involve crops and animals specified in the statutory guidance as receptors covered within the description of property. These receptors will be considered within the development and implementation of the strategy.

Potential sites that fall outwith planning control, for example, developers with Class 44 permitted development rights, but with comparable contamination profiles, will be given higher priority for consideration within the contaminated land regime because their potential problems are less likely to be dealt with through the planning redevelopment process. To this end, the Planning Authority will contact all existing developers with permitted development rights outlining the requirements of the contaminated land regime and request that they should contact the Department for Sustainable Communities prior to any proposed future development.

The Comhairle recognises the importance of balancing the demands on land in its efforts to sustain communities, and in its role in directing and integrating development. This role will have a major effect in addressing development pressures, which are likely to drive redevelopment of sites through the Development Control process and therefore remove them from consideration within the contaminated land regime.
Land

Land Cover

Table 3: Land use characteristics and land cover of the Comhairle’s area.

<table>
<thead>
<tr>
<th>Land use category</th>
<th>% of land cover</th>
<th>Area (Hectares)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arable</td>
<td>0.2</td>
<td>6.5</td>
</tr>
<tr>
<td>Improved Grassland</td>
<td>3.2</td>
<td>98.8</td>
</tr>
<tr>
<td>Good rough grassland</td>
<td>0.9</td>
<td>27.8</td>
</tr>
<tr>
<td>Heather Moorland</td>
<td>8.1</td>
<td>248.5</td>
</tr>
<tr>
<td>Peatland</td>
<td>14.5</td>
<td>449.0</td>
</tr>
<tr>
<td>Recent Plantings/Fellings</td>
<td>0.1</td>
<td>3.8</td>
</tr>
<tr>
<td>Coniferous Woodland</td>
<td>0.2</td>
<td>5.3</td>
</tr>
<tr>
<td>Broad-leaved/Mixed Woodland</td>
<td>&lt; 0.05</td>
<td>1.3</td>
</tr>
<tr>
<td>Fresh Water</td>
<td>5.7</td>
<td>177.0</td>
</tr>
<tr>
<td>Development-Rural/Urban</td>
<td>0.4</td>
<td>9.8</td>
</tr>
</tbody>
</table>

A profile of the land cover within the Comhairle’s area is presented in Table 3.

Land Ownership

Information will be obtained from the Crofters’ Commission on occupiers of croft land throughout the Western Isles. The Comhairle will establish a crofting ownership database. Land ownership information may also be available through the Comhairle’s Assessors and Area Valuation Rolls. Ownership information may also be held within other Comhairle services. Other Comhairle departments hold information on land ownership and this information will be sourced to establish a land ownership database. This information will be useful where potential significant contamination issues arise in relation to property or sites highlighted during implementation of the strategy.

Information on potential land contamination may be available from property owners or estates where there may have been historical contaminative land use. A mandatory accountancy standard applicable to most organisations producing financial statements, known as “FRS12 -Provisions, Contingent Liabilities and Contingent Assets” requires the assessment of provisions and contingent liabilities. Organisations with potentially contaminated land, or those whose activities may have lead to historic contamination would need to consider such potentially contaminated land as Provisions or Contingent Liabilities. Such assessments and the strategies these organisations prepare to deal with sites, may be very useful to local authorities when implementing their inspection strategies.

Comhairle Estate Portfolio

The Comhairle own a number of sites and premises throughout the Islands, ranging from schools to business units. Comhairle ownership is not restricted to occupied buildings but also extends to a vacant properties and land. The Comhairle is actively involved in monitoring it’s own land ownership and that will help to define areas most likely to be
inspected for contamination. In particular land and buildings used for industrial purposes and for the transfer and disposal of wastes.

Issues of ground contamination are most likely to arise on land with industrial use associated historically with contamination, and land used in the past for the transfer and disposal of wastes. There is also a potential for the existence of contaminated materials in parcels of reclaimed land managed by the Comhairle. Information on the extent of the Comhairle’s estate is held by Corporate Services in the corporate property database. This database is mainly paper based and has in part been transferred to electronic format.

A comprehensive assets register will be established for all Comhairle owned land and property. This will be facilitated by the purchase of a corporate land and property management software package. A working group has been established to facilitate this acquisition.

Once established in electronic format the corporate property database will be linked to a Geographical Information System (GIS) called MapInfo. Potentially contaminated land will be identified using point and shapefile polygons for each parcel of land or property. Priority sites already identified are being investigated.

Any decisions on investigation and remediation of Comhairle owned or managed sites will be the same as that for privately owned land and will have due regard to the policies and procedures referred to in this strategy.

**Waste disposal**

Almost 90% of our domestic waste is disposed of to landfill – burying untreated waste in holes in the ground (such as disused quarries). If not properly managed landfill sites can give rise to a variety of pollution problems, including leachate (a liquid formed when waste is broken down by bacteria which can cause contamination of groundwater); production of potentially explosive levels of methane gas, dangerous levels of carbon dioxide, plus trace concentrations of a range of organic gases and vapours. In the past it was possible for the owner of a site to close it down and walk away without legal obligation or liability. The Environmental Protection Act 1990 and the recently introduced European Directive on Landfill places new responsibilities on the owners and operators of landfill sites to ensure that the site is monitored and maintained after closure. The Western Isles, in common with many remote settlements across mainland Scotland and the Islands, have historically disposed of waste in local tips. Local knowledge and the Cleansing Service records will be used to identify these historic community settlement tips.

The nature of household wastes up until relatively recently was such that in general, material going to the tip would have been relatively inert and not considered as a problem. Management of “tips” would have consisted of judicious burning, selective scavenging and burial of the remaining materials and residues.

The significant change in composition of the waste stream in the last 50 years, the greater potential for disposal to impact within the local environment, and increasing awareness of waste and environmental issues, has sponsored a series of waste management legislation and the tighter regulation of disposal. This and the major structural changes in the provision and delivery of local services have driven both the centralisation of waste management and disposal, and the increase in size and capacity of disposal sites. As a result most of the local tip sites have been closed.

It should also be borne in mind that unregulated disposal of commercial and industrial waste may be associated with tip sites. Commercial and industrial waste composition can have an important effect on the likely pollution from, or contamination in, such sites.
It is possible that historic commercial and industrial waste materials have been used in land reclamation and landscaping, or may have been tipped into convenient quarries or other excavations.

Existing licensed landfill sites, subject to current regulatory regimes are outwith the scope of the contaminated land regime. Historic tip sites and landfill will be considered as potential sources of contamination (migration of landfill gas to sensitive receptors). Information held within the Comhairle, and by Comhairle staff regarding historical disposal will be collated and other sources of such information explored.

**Potentially Contaminative Land Use**

The most probable sources of soil contamination to be considered within this regime are likely to have arisen from the supply, storage, use of, and wastes arising from materials used in historic commercial and industrial processes. These are highlighted below. Such industrial land uses within the Western Isles will also include Part A and Part B process operators regulated by SEPA.

- Agriculture (disposal of farm wastes on site, burial of diseased animals)
- Quarrying
- Manufacture and processing of textiles & paraffin (from peat cuttings)
- Steel fabrication and Engineering
- Land where significant quantities of chemicals or fuels have been stored or used,
- Gasworks, electricity generation,
- Dock yards, airports,
- Use, storage, or disposal of explosives or military ordinance,
- Waste recycling, treatment, disposal and sewage works.

There may also be issues of land contamination associated with the historic disposal of domestic wastes and on land used in military activities.

Industry in the Western Isles has developed around the exploitation of abundant natural resources, and the growth of population around ports of entry.

**Influences on the Strategy**

Information on land use and ownership, including Comhairle owned land and property is fundamental to the development and implementation of the strategy.

Many Western Isles communities will have within close proximity of their settlements a disused or closed tip site, there may be numerous unofficial tips particularly in remoter areas, and commercial or industrial wastes may have been used historically in land filling or landscaping. Materials migrating from these sites may affect environmental receptors, property or controlled waters. Known, suspected and potential historic tip or landfill sites will be identified within the strategy.

Liaison with representatives of industry and organisations with potential contaminated land interests will be advised and encouraged to address any potential contaminated land liabilities and obligations. Similarly liaison within the Comhairle will ensure that potential liabilities and obligations within the current and previous local authority estate portfolio are addressed.
Water

Controlled Waters

Paragraphs B50 and B51 of the statutory guidance, contained in The Scottish Executive Circular 1/2000, provides guidance to local authorities on the determination of pollution of controlled waters. Pollution of controlled waters is defined in section 78A(9) of Part II as:

“the entry into controlled waters of any poisonous, noxious or polluting matter or any solid waste matter”.

This is not further defined, although poisonous, noxious or polluting matter is often viewed as being capable of causing harm or making water impure.

Controlled waters are as defined in Section 30A of the Control of Pollution Act (COPA) 1974 (as amended) and in general include:

- Relevant territorial waters (extending seaward for three miles from the baseline from which the breadth of territorial sea adjacent to Scotland is measured)
- Coastal waters (extending from the baselines above as far as the limit of the highest tide or as far as the fresh-water limit of the river or watercourse which adjoins waters within that area)
- Inland waters (including the waters of any relevant loch or pond and rivers or other watercourses above the fresh-water limit)
- Ground waters (contained in underground strata, including water in wells, boreholes and excavations into underground strata)

Assessment of Water Pollution

External guidance on the pollution of controlled waters arising from contaminated land has been issued by SEPA to all Scottish Local authorities. It states that the key principles in the assessment of water pollution are as follows:

- there is no risk if there is no mechanism for contaminants to enter water.
- a contaminant can enter water without causing pollution i.e. pollution means adverse impact not just entry.
- contaminants that pose the greatest risk to water are those which are mobile or leachable and have the potential to adversely impact on aquatic life and other users of water.

SEPA’s external guidance will be referred to when assessing water pollution.

Surface waters

Surface waters in the Western Isles area provide a valuable resource, not only in terms of supporting environmental and biological quality, but also in provision of water supply, their recreational, commercial and industrial uses, and their impressive scenic and landscape value. Maintaining and protecting marine and freshwater surface water resources are important priorities within the Comhairle’s strategic response to the contaminated land regime.

Some surface water quality is surveyed on a routine basis. In Scotland SEPA undertakes this responsibility and assesses quality on the basis of chemistry, biology, nutrients, dangerous substances and aesthetic conditions. SEPA will be consulted on the quality of
such waters as they are incorporated as potential receptors within the contaminated land database.

The implementation of the EC Water Framework Directive (WDF) is soon to be transposed into Scots law by the Water Environment Act. The strategy recognises that the standards to be applied relate to groundwater and surface waters. When inspecting potentially contaminated sites consideration will be given to groundwater and surface water pollution from the site. Reference will be made to the Environmental Quality Standard (EQS) and the Environmental Quality Objective (EQO) in terms of the entry of substances to surface waters. As and when appropriate, human drinking water standards, bathing waters regulations, surface waters regulations (fresh water & marine), and surface waters (dangerous substances) regulations will be referred too.

**Ground water**

Groundwater is important in terms of potable water supply and other industrial/commercial uses, in addition to supplying surface water bodies. It is a valuable resource throughout Scotland and within the Western Isles and comprises bodies of water contained as aquifers within both solid and drift geology.

A ground water policy was initially developed by the National Rivers Authority (NRA), a statutory body established for England and Wales under the Water Act 1989, to take over the responsibilities of their water authorities. In 1992 the NRA outlined a policy for protecting ground water supplies and defined source protection zones. Whilst this policy is not statutory, the compilation of maps showing groundwater areas and their vulnerability has been undertaken by the Environment Agency (SEPA’s equivalent in England and Wales), and are available to English and Welsh local authorities.

Scotland’s strategy for the protection of ground water was originally published in 1995, and by SEPA in 1997 (SEPA Policy No 19) and uses the same approach as the NRA in identifying protection zones. SEPA indicated their plan to prepare similar maps for Scotland in their policy and these will be sourced as soon as they become available.

**Water supplies**

North of Scotland Water Authority (NOSWA) undertakes the provision and maintenance of public water supply throughout the Western Isles area. There are 32 public water supplies serving Western Isles communities.

The Comhairle regulates and monitors approximately 40 private water supplies across ‘s area. These supplies serve a population estimated at 300 and range in size from those serving individual domestic properties, to those supplying major food and drinks manufacturers. (reference; Private Water Supplies (Scotland) Regulations 1992, 2000 Return.Comhairle nan Eilean Siar, Sustainable Communities).

Water supplies arise either in groundwater or surface waters, and as such are receptors in terms of the contaminated land regime. In addition their distribution and use allows them to be considered as possible pathways to human population receptors.

**Influences on Strategy**

Consideration of the Western Isles water resources will be significant within the development and implementation of the strategy. Liaison with a number of agencies whose responsibilities include water resource issues is essential within the strategy.

Information on controlled waters, vulnerable ground and surface waters, and private and public water supplies will be incorporated into the contaminated land database.
Ecology

International and National Conservation Areas

The natural resources of the Western Isles are recognised as being of international importance and this is recognised by the number and extent of conservation designations that have been applied. The presence and quality of our natural resources have been supported over the years by sensitive land use practiced by the people living and working on the land and sea - the low intensity systems practiced on the Machairs being a prime example. Without appropriate and sensitive land use, some of our most important natural resources would probably go into a phase of rapid decline. There is clearly a need to look forward to integrated sustainable development.

The following information was obtained from Scottish National Heritage and indicates the number of designated areas in the Western Isles. These are listed below:

- 1 World Heritage site;
- 5 Ramsar sites;
- 3 National Scenic Areas (includes large marine component - covering St Kilda; South Lewis, Harris and North Uist; and South Uist Machair; recognising unique qualities of the Western Isles landscape);
- 4 National Nature Reserves;
- 55 Sites of Special Scientific Interest, and;
- 15 Special Protection Areas – SPAs, Candidate Special Areas of Conservation - SACs (two new proposed SACs are under consultation at present), and
- The Natura 2000 network consists of a series of sites designated as important for nature conservation under the EU Habitats and Birds Directives. The network encompasses areas classified as SPAs (for birds), and SACs (for habitats and species other than birds).

Whilst sustainable land use is of prime importance to support and protect our natural resources, extra opportunities exist to use these resources to the benefit of the Western Isles, including:

- Use of environment as a marketing tool.
- Development of tourism industry.
- Education and training.
- Environmental research.
- Public health - recreation and access.
- Environmental management – e.g. control of introduced alien species

Archaeological Sites

Many generations of careful land management practices have resulted in a landscape in which the remains of the past continue to be visible.

The Sites and Monuments Record held by Comhairle nan Eilean Siar records a total of 6859 archaeological sites and monuments in the islands, dating from between 5,000 years old and 50 years old. The distribution of these is uneven, reflecting the history of archaeological survey rather than the real density of monuments.
Of the 6859 archaeological sites and monuments, only 247 are protected by law as Scheduled Ancient Monuments, a designation defined as applying to ‘sites of national importance’. Again, this relatively low number reflects the history of archaeological work in the Islands, rather than the quality of the sites on the ground; there are many more ‘schedulable’ sites in the Islands.

There are at least 262 buildings in the Western Isles that have been listed by the Secretary of State of Scotland as buildings of special architectural or historic interest. Of these 17 are in Category A i.e. buildings of national or more than local importance, 166 in Category B and 79 in Category C. A proportion is listed as “group listings”, most of which are groups of traditional thatched dwellings.

The main concentration of listed buildings is within the Stornoway Outstanding Conservation Area. To date four Conservation Areas have been designated in the Western Isles, at Garenin, Lewis, Ruisgary, Berneray, at Howmore, South Uist and the fourth is in Stornoway.

This information will be imported into the contaminated land MapInfo database.

**Influences on Strategy**

National and international sites are identified locations of specified receptors within ecological systems.

Due to past land management practices on some areas of land already designated as conservation areas, statutory consultation with SNH will be initiated in line with the strategy prioritisation scheme. There is also the possibility that some of the species present may be key receptors, particularly marine species and birds in any contaminated estuarine or coastal areas.
## APPENDIX I: Categories of Significant Harm

<table>
<thead>
<tr>
<th>Type of Receptor</th>
<th>Description of harm to that type of receptor that is to be regarded as significant harm</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1</strong> Human beings</td>
<td>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 &quot;human health effect&quot;.</td>
</tr>
</tbody>
</table>
| **2** Any ecological system, or living organism forming part of such a system, within a location which is: | 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 Protection 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.  
In this Chapter, this description of significant harm is referred to as an "ecological system effect". |
| - 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;  
- any European Site within the meaning of regulation 10 of the Conservation (Natural Habitats etc) Regulations 1994 (i.e. Special Areas of Conservation and Special Protection Areas);  
- 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 (i.e. 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. |
### APPENDIX I: Categories of Significant Harm..Continued........

| Property in the form of: | 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”.

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.

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”.


### Descriptions of Significant Harm (As Defined in Table A)

<table>
<thead>
<tr>
<th>Description</th>
<th>Conditions for there being a Significant Possibility of Significant Harm</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Human health effects arising from</td>
<td>If the amount of the pollutant in the pollutant linkage in question:</td>
</tr>
<tr>
<td>- The intake of a contaminant, or</td>
<td>- which a human receptor in that linkage might take in, or</td>
</tr>
<tr>
<td>- other direct bodily contact with a contaminant (exposure)</td>
<td>- 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.</td>
</tr>
<tr>
<td></td>
<td>- Such an assessment should take into account:</td>
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<tr>
<td></td>
<td>- 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;</td>
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<tr>
<td></td>
<td>- the relative contribution of the pollutant linkage in question to the likely aggregate intake of, or exposure to, the relevant substance or substances; and</td>
</tr>
<tr>
<td></td>
<td>- the duration of intake or exposure resulting from the pollutant linkage in question.</td>
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<tr>
<td></td>
<td>- 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.</td>
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<tr>
<td></td>
<td>Toxicological properties should be taken to include carcinogenic, mutagenic, teratogenic, pathogenic, endocrine-disrupting and other similar properties.</td>
</tr>
<tr>
<td>2. All other human health effects (particularly by way of explosion or fire)</td>
<td>If the probability, or frequency, of occurrence of significant harm of that description is unacceptable, assessed on the basis of relevant information concerning:</td>
</tr>
<tr>
<td></td>
<td>- that type of pollutant linkage, or</td>
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<td></td>
<td>- that type of significant harm arising from other causes.</td>
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<tr>
<td></td>
<td>Such an assessment should take into account the levels of risk, which have been judged unacceptable in other similar contexts.</td>
</tr>
<tr>
<td>3. All ecological system effects</td>
<td>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.</td>
</tr>
<tr>
<td></td>
<td>All animal and crop effects</td>
</tr>
<tr>
<td>---</td>
<td>-----------------------------</td>
</tr>
<tr>
<td>5</td>
<td>All building effects</td>
</tr>
</tbody>
</table>
Land use classification of potential sites based on Perceived Risk. Stored as MapInfo Shapefile

Perceived Risk
Low  High

Request Information from Comhairle Departments

Industry/Ownership Information  Comhairle Estate  Pathway/Receptor Information  Potential Special Site

Low  High

Keep MapInfo Shapefile under review

New Information forthcoming

Prioritise potential sites using Risk based software package "CLARE"

Low  High

Request information from external consultees

Industry/Ownership Information  Pathway/Receptor Information  Previous site investigations  Potential designation of special site

No further action unless change in use, additional information or change in legislation

Low  High

Desk top study qualitative risk assessment

Low  Medium  High

Conceptual Site Model Quantitative Site Investigation Risk Assessment

Is there a significant possibility that harm is occurring or likely to occur and/or Is there pollution of controlled waters

NO

Designated Site as Special Site

Enforcement by SEPA

Designated Site as Contaminated Land

Enforcement of Remediation by SEPA through other legislation

Voluntary

Enforcement by Comhairle

Remediation

Is it compliant

YES

NO
Appendix IV Selected Draft Structure Plan Policies

The following suite of policies seek to address, from a land use perspective, the key elements considered to sustain the communities of the Western Isles.

SC1  Sustainable Community Areas
The Comhairle will develop policies that address land use planning aspects arising from the Western Isles ‘Quality of Life’ Initiative (Local Agenda 21), and will provide the basis for investment decisions and service provision within the following 12 areas:
Barra and Vatersay; South Uist and Eriskay; Benbecula; North Uist and Berneray; Harris and Scalpay; Uig and Great Bernera; West Side and Carloway; Ness; Lochs; Broad bay; Point and Greater Stornoway.

SC6  Safe Environments
In conjunction with its Community Planning partners, the Comhairle will seek land use and development solutions that promote safe environments for its residents.

SC9  Natural Environment
In conjunction with its Community Planning partners, the Comhairle will seek to sustain and enhance the quality of the natural environment and bio-diversity of the Western Isles for the well-being of its residents and visitors.

SC10  Efficient Use of Resources
In conjunction with its Community Planning partners, the Comhairle will seek to encourage land use and development solutions that assist in utilising resources efficiently, reducing pollution, minimising waste and promoting the use of recycled materials where possible.

SC11  Sustainable Development
The Development and Land Use Strategy sets out the approach in the Western Isles to achieve sustainable development. All development proposals and Local Plan policies and proposals will be required to accord with it.

In addition to the above land use policies, the following parallel actions will assist in achieving the aims of the Structure Plan:

- preparation of and implementation of an action plan for Local Agenda 21
- implementation of the Community Learning Strategy
- preparation of Community Plans
- schemes and projects arising from Local Transport Strategy,
- implementation of Action Plans on local bio-diversity,
- Schemes and projects arising from the Area Waste Plan
- Implementation of the WI Safety Plan
- Implementation of the WI Contaminated Land Strategy

DS3  Regeneration Areas
The Comhairle, in conjunction with public and private sector partners, will seek to secure the regeneration of areas of economic, social or environmental decline, in particular Stornoway, Balivanich and the ports of entry. Relevant Local Plans should identify specific land use proposals, policies and other initiatives that support regeneration.

DS4  Re-use of Land and Buildings
The Comhairle will support proposals that bring contaminated, vacant or derelict land back into beneficial use. The re-use of vacant and derelict properties is generally preferred to demolition and particular emphasis will be placed on proposals that return vacant listed buildings and other buildings of heritage or townscape value (including blackhouses) to beneficial use where the character of the building can be retained.

Local Plans should identify significant parcels of land or important buildings to which this policy applies.
Appendix IV Selected Draft Structure Plan Policies continued……

DS7  Sustainable Land Use Change

The Comhairle supports the sustainable use of land and natural resources, in particular those that reflect low intensive management practices and activities that meet agri-environment objectives and encourage bio-diversity.

DS8  Assessment of Development Proposals

When considering proposals for development, (including Prior Notifications) the Comhairle will consider:

i) the siting and design of proposed development;

ii) the impact of the proposal on neighbouring uses in terms of amenity;

iii) the safeguarding of built heritage resources;

iv) safeguarding of natural heritage resources;

v) the availability of supporting infrastructure;

vi) the provision of access for varying needs;

vii) contamination issues arising from past use of the site or proposed future uses;

viii) measures dealing with flooding risk and coastal erosion;

ix) the views of Health and Safety Executive, Civil Aviation Authority, and Ministry of Defence, especially in relation to development within or affecting notification or safeguarding zones;

x) the creation of safe environments;

xi) taking a precautionary approach when there is uncertainty over the outcome of a proposal;

xii) the application of appropriate conditions and legal agreements to facilitate development that would otherwise be unacceptable; and

xiii) all other relevant Structure Plan policies.

DS14  A Precautionary Approach

The Comhairle will adopt a precautionary approach when considering proposals where environmental or social-economic impacts on the local community and environment are uncertain. In such circumstances the Comhairle will request Impact Assessments (e.g. as described in environmental assessment and planning regulations) from the developers (depending on the scale, nature and location of development) to help it reach an informed planning decision.

ED2  Development of Renewable and Alternative Energy Resources

The Comhairle, in partnership with other public agencies and the private sector, will develop proposals that help realise the latent renewable energy development potential of the Western Isles. It will also promote improvements to the interconnector with the mainland to enable the export of energy.

Renewable energy schemes (including hydro, wind, wave and tidal developments) and associated infrastructure will be viewed positively, however proposals will be subject to satisfactory assessment of all of the following:

i) the impact on local communities and any other existing or proposed land uses and interests.

ii) the impact on natural and built heritage resources.

iii) the impact of site servicing, access, traffic, power transmission and operational requirements.

iv) noise, pollution, safety and public access implications.

v) the local and wider benefits that the proposal may bring.

vi) the adequacy of reinstatement arrangements.

Non-permanent structures will normally be approved for a temporary period.

Local plans should consider the identification of potentially suitable sites having regard to the above criteria, including provision of safeguarding or exclusion areas to ensure that future neighbouring developments or activities do not create ‘bad neighbour’ issues or undermine the viability of the energy resource.

ED12  Restoration and Re-use of Former Quarries

Local plans should identify suitable opportunities for re-using former quarries that will result in appropriate restoration arrangements and safe new end uses.
Appendix IV Selected Draft Structure Plan Policies continued…

**ED17 Pollution, Hazardous Substances and Land Contamination**

The Comhairle will not support development proposals that:

i) pose an unacceptable risk to the environment, or upon the health and safety of people; or

ii) result in a significant reduction in air quality or volume or quality of a water supply.

Where proposals may cause damage through pollution, conditions will be put in place to ensure pollution is controlled.

Local Plans should identify sites where past contamination of land is suspected and detail limitations on the future uses of the site, together with guidance on remedial work required.

**RM3 Land Management, Crofting and Bio-diversity**

The Comhairle supports sustainable land management practices that promote bio-diversity and will advocate the application of agri-environment schemes across the whole of the Western Isles. It will produce a Local Biodiversity Action Plan to help inform and guide land managers.

Where appropriate, the Comhairle will work with land managers, crofters and others to secure environmentally sensitive land-use management agreements and practices.

**RM4 Safeguarding Good Quality Agricultural Land**

The Comhairle will only support development proposals that would result in a loss* of good quality agricultural land (defined as class 3.1 or higher) when all of the following are met:

i) the applicant has demonstrated that the development must proceed on the site identified (i.e. there is no alternative option that utilises lower quality land).

ii) the proposal does not threaten the viability of the township within which the proposal is located.

Smaller scale development proposals which may incrementally result in a large loss of good quality agricultural land will also not normally be supported.

Local Plans should avoid identifying good quality agricultural land for development when a suitable alternative is available.

*normally 0.5 hectare or more, however could apply to smaller areas in exceptional circumstances

**RM16 Western Isles National Park**

The Comhairle will support proposals to establish a National Park encompassing all, or part, of the land and waters of the Western Isles subject to:

i) support from the local communities affected; and

ii) a positive evaluation of the impacts arising from the creation of other National Parks in Scotland (e.g. Loch Lomond and Trossachs and Cairngorm).
Appendix V  Key Date Sources to be imported into MapInfo Contaminated Land dataset

- Water data - abstraction points, protection zones, Groundwater Vulnerability Maps (paper only), waste disposal sites and Part A & Part B processes obtained from Scottish Environment Protection Agency.
- Public Water Supplies data from North of Scotland Water Authority
- Private Water Supplies data from the Department for Sustainable Communities.
- Historic Mapping - Landmark
- Geological mapping – British Geological Survey digital maps (only solid geology available)
- Ecological data from Scottish Natural Heritage
- Scheduled Monuments – Comhairle Archaeologist
- General receptor and land use data - working with housing, planners etc
- Landline data (service level agreement)
- Data from Local Plans
## Appendix VI PROVISIONAL INSPECTION TIMETABLE

<table>
<thead>
<tr>
<th></th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
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<td>JFMAMJ</td>
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<tr>
<td>Strategy adopted &amp; reviewed</td>
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<tr>
<td>Identification of statutory defined contaminated land</td>
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<tr>
<td>Targeting of identified Priority Areas, Pathways and Receptors</td>
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<tr>
<td>Collation of key data sources and development of MapInfo GIS</td>
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<tr>
<td>Inspection of settlements based on population density</td>
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<td>Provision of a Public Register</td>
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</table>

**KEY**
- **Yellow**: Action will take place during this period
- **Red**: Action timetabled for this period
- **Green**: Action may occur during this period
## Appendix VII

<table>
<thead>
<tr>
<th>Acronyms</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BGS:</td>
<td>British Geological Survey, Murchison House, West Mains Road, Edinburgh EH9 2LA.</td>
</tr>
<tr>
<td>COSLA:</td>
<td>Convention of Scottish Local Authorities, Rosebery House, 9 Haymarket Terrace Edinburgh.</td>
</tr>
<tr>
<td>EPA:</td>
<td>Environmental Protection Act 1990.</td>
</tr>
<tr>
<td>FSAS:</td>
<td>Food Standards Agency Scotland, 6th Floor, St Magnus House, 25 Guild Street, Aberdeen AB11 6NJ.</td>
</tr>
<tr>
<td>GIS:</td>
<td>Geographical Information System.</td>
</tr>
<tr>
<td>HSE:</td>
<td>Health and Safety Executive, Belford House, 59 Belford Road, Edinburgh EH4 3UE.</td>
</tr>
<tr>
<td>MLURI:</td>
<td>MacAuley Land Use Research Institute, Craigiebuckler Aberdeen AB15 8QH.</td>
</tr>
<tr>
<td>NOSWA:</td>
<td>North of Scotland Water Authority,</td>
</tr>
<tr>
<td>NRA:</td>
<td>National Rivers Authority</td>
</tr>
<tr>
<td>SAC:</td>
<td>Special Area of Conservation, a European site designation.</td>
</tr>
<tr>
<td>SEERAD:</td>
<td>Scottish Executive Environment and Rural Affairs Department, Victoria Quay, Edinburgh EH6 6QQ</td>
</tr>
<tr>
<td>SEPA:</td>
<td>Scottish Environment Protection Agency</td>
</tr>
</tbody>
</table>
Part IIA has created its own terminology, with such words as “remediation”. To this, the Guidance contained in the Circular has added another layer of terms, such as “pollutant linkage”, “contaminant”, “contaminated land”, and so forth. Annex 6 to the Circular provides a glossary of terms, running to seven pages, to which reference should be made. The list below is the key abbreviations, which are in use throughout this strategy document;

“Contaminant”: 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.

“Contaminated Land”: 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.

“Controlled Waters”: defined by reference to section 30A of the Control of Pollution Act 1974; this embraces territorial waters, inland fresh waters, and ground waters.

“Current Use”: any use which is currently being made, or is likely to be made, of the land and which is consistent with any existing planning permission (or is otherwise lawful under town and country planning legislation). This definition is subject to the following qualifications:
(a) the current use should be taken to include any temporary use, permitted under town and country planning legislation, to which the land is, or is likely to be, put from time to time;
(b) the current use includes future uses or developments which do not require a new, or amended, grant of planning permission;
(c) the current use should, nevertheless, be taken to include any likely informal recreational use of the land, whether authorised by the owners or occupiers or not, (for example, children playing on the land); however, in assessing the likelihood of such informal use, the local authority should give due attention to measures taken to prevent or restrict access to the land; and
(d) in the case of agricultural land, however, the current agricultural use should not be taken to extend beyond growing or rearing of crops or animals which are habitually grown or reared on the land.

“Pollutant”: a contaminant which forms part of a pollutant linkage.

“Pollutant Linkage”: the relationship between a contaminant, a pathway and a receptor.

“Pollution of controlled waters”: defined as the entry into controlled waters of any poisonous, noxious or polluting matter or any solid waste matter.

“Possibility of significant harm”: a measure of the probability, or frequency, of the occurrence of circumstances which would lead to significant harm being caused.
“Remediation”: defined as
(a) the doing of anything for the purpose of assessing the condition of –
   (i) the contaminated land in question;
   (ii) any controlled waters affected by that land; or
   (iii) any land adjoining or adjacent to that land;
(b) the doing of any works, the carrying out of any operations or the taking of any step in
   relation to any such land or waters for the purpose –
   (i) of preventing or minimising, or remedying or mitigating the effects of, any significant
   harm, or any pollution of controlled waters, by reason of which the contaminated land
   is such land; or
   (ii) of restoring the land or waters to their former state; or
(c) the making of subsequent inspections from time to time for the purpose of keeping
   under review the condition of the land or waters.

“Risk”: the combination of:
(a) the probability, or frequency, of occurrence of a defined hazard (for example, exposure to a property of a substance with the potential to do harm); and
(b) the magnitude (including the seriousness) of the consequences.

“Significant harm”: means any harm which is determined to be significant in accordance with the statutory guidance in Chapter A (that is, it meets one of the descriptions of types of harm in the second column of Table A of that Chapter).

“Significant pollutant”: a pollutant which forms part of a significant pollutant linkage.

“Significant pollutant linkage”: a pollutant linkage which forms the basis for a determination that a piece of land is contaminated land.

“Substance”: any natural or artificial substance, whether in solid or liquid form or in the form of a gas or vapour.
## Appendix IX  References & Bibliography

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