Executive Summary

Good quality land, air and water, is essential for our community's existence, yet it is so much a part of everyday life that there's a danger of taking it for granted. Land provides us with the essential growing medium for our food, timber and other crops. It supports the buildings that we live and work in and the roads and rails that move us around. It is a useful source of minerals, supports diverse ecological systems and, acts to filter, store or transform many of the chemicals passing through it, preventing them from deleteriously affecting the quality of water or air.

Contaminated Land

Land contamination in its broadest sense describes a general spectrum of site and soil conditions. It can include areas with elevated levels of naturally occurring substances, as well as specific sites that have been occupied by former industrial uses, which may have left a legacy of contamination from operational activities or from waste disposal. It can also include areas of land in which substances are present as a result of direct or indirect events, such as accidents, spillages, aerial deposition or migration.

In general terms these circumstances can be described as *"land affected by contamination"*. However, for any individual site the Council and any other interested persons face two questions; "Does the contamination matter?" and, if so "What needs to be done about it?"

The Legislation

Part IIA of the Environment Protection Act 1990 (EPA 1990), supported by the Contaminated Land Regulations (England) Regulations 2000 (SI 2000 No. 227), came into force on 1 April 2000, providing a new framework for the identification and remediation of land contaminated in circumstances where there has not been any identifiable breach of a pollution prevention regime.

Part IIA (EPA1990) places the primary regulatory role with local authorities, which reflects their function under the statutory nuisance regime and complements their function as planning authorities.

The definition of what constitutes contamination being applied by this legislation 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 land, that significant harm is being caused or there is a significant possibility of such harm being caused; or pollution of controlled waters is being, or is likely to be caused"

Copeland's Task

The specific task allocated to Copeland BC as principal regulator under this legislation can be broadly summarised as;

i) Prepare and publish an inspection strategy

ii) Inspect their area to identify and determine contaminated sites

iii) Consult the Environment Agency (EA) on pollution of controlled waters

iv) Transfer responsibility for "Special Sites" to the EA

v) Provide Information to the EA for inclusion in the State of Contaminated Land Report

vi) Ensure remediation of land identified as contaminated

vii) Maintain remediation register

The outcomes so far

Following on from the publication of the Council's first Strategy in July 2001, an initial survey of the Borough was carried out using all historic information available, including OS Maps dating back to 1860's. From this survey, the Council was able to identify as many potentially contaminated sites as possible, by examining the historic use of the site and comparing this to the potential contamination that might exist.

This approach allowed Copeland BC to focus attention and available funds upon sites that have the greatest potential for causing significant harm or pollution of controlled waters.

Sites identified as potentially contaminated were then prioritised into Group A, B or C category, using the Council's Prioritisation Procedure based on Contaminated Land Exposure Assessment (CLEA) model and, guidance such as Contaminated Land Research Report CLR 6 *Prioritisation & categorisation procedure for sites which may be contaminated*. Sites in Group A are the highest risk sites.

A rolling programme of works was then instigated incorporating a site investigation phase, followed by, where it is established that a site is statutorily *"contaminated"*, remedial action.

Where land has been declared contaminated and all pollution linkages have been identified, apportionment of liability has then been undertaken. This is a complex procedure which relies on identifying Class A and Class B polluters, who are apportioned a proportion of the liability and cost associated with remediating the site.

The Reviewed Strategy

This document outlines the reviewed strategy that Copeland Borough Council will take in implementing this regime in both the short and medium term, demonstrates it's relationship to the other statutory regulator, the Environment Agency, and highlights a risk based approach to the investigation of potentially contaminated sites. The strategy is, as intended by the law, specific to the context and circumstances of Copeland and in brief, will -

- Prioritise on risk
- Seek to contain contaminants where no other action is necessary
- Seek to support regeneration where appropriate
- Inspect, remediate and treat Council land no differently than other land owned, occupied or contaminated by appropriate persons in accordance with the strategy
- Inform the Statutory Development Control process by advising on the investigation and subsequent remediation of potentially contaminated sites

1. Introduction

From the 12th Century to present, industrial activities have contributed to the development of communities within the Borough of Copeland. As a result of this industrial heritage, certain areas of land require detailed investigation to determine whether or not they are contaminated from processes that took place on or adjacent to them, and if so, what remediation measures need to be implemented to ensure no significant harm results from that contamination.

Part IIA of the Environmental Protection Act 1990 requires Local Authorities to;

a) Survey the area over which they have responsibility to identify contaminated land.
b) Determine whether any particular site can be defined as contaminated land.
c) Act as the enforcing authority for all contaminated land not designated as a "special site" (the Environment Agency will be the enforcing authority for special sites).

2. What is Contaminated Land?

2.1 The Definition of Contaminated Land

There is a specific legal definition for the term 'Contaminated Land', which may be found in EPA 1990, section 78A(2) this defines a contaminated land site as being:

Any land that 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 land, that –

i) significant harm is being caused or there is a significant possibility of such harm being caused; or

ii) *pollution of controlled waters is being, or is likely to be caused; and in determining whether any land appears to be such land, the local authority shall……act in accordance with guidance issued by the Secretary of State*.

Guidance as to the determination of "significant harm" in relation to Part IIA (EPA 1990) states the following;

Section 78A(4) "harm", as meaning "harm to the health of living organisms or other interference with ecological systems of which they form and, in the case of man, includes harm to his property".

Section 78A(5) provides a definition as to what harm is to be regarded as "significant" and whether the possibility of significant harm being caused is significant.

Definitions of "significant" are laid out in the DETR Circular 02/2000, Annex 3, Chapter A, Part 3, Table A, which has been reproduced on the following pages.

Table A: DETR guidance table to aid the definition of significant harm

	Type of Receptor	Description of harm to that type of receptor that is to be regarded as significant harm
1	Human beings	Death, disease, serious injury, genetic mutation, birth defects or the

	Type of Receptor	Description of harm to that type of receptor that is to be regarded as significant harm
		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.
2	Any ecological system, or living organism forming part of such a system, within a location which is: • an area noted as an area of special scientific interest 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 or potential Special Protection Areas given equivalent protection; • any habitat or site afforded policy protection under paragraph 13 of Planning Policy Guidance Note 9 (PPG9) on nature conservation (i.e. candidate Special Areas of Conservation, potential Special Protection Areas and listed Ramsar sites); or	For any protected location: Harm which results in an irreversible adverse change, or in some other substantial adverse change, in the functioning of the ecological system within any substantial part of that location; or harm which affects any species of special interest within that location and which endangers the long-term maintenance of the population of that species at that location. In addition, in the case of a protected location which is a European Site (or a candidate Special Area of Conservation or a potential Special Protection Area), harm which is incompatible with the favourable conservation status of the natural habitats at that location or species typically found there. In determining what constitutes such harm, the local authority should have a regard to the advice of English Nature and to the requirements of the Conservation (Natural Habitats, etc) Regulations 1994.

	Type of Receptor	Description of harm to that type of receptor that is to be regarded as significant harm
	• any nature reserve established under section 21 of the National Parks and Access to the Countryside Act 1949.	
3	Property in the form of: • crops, including timber; • produce grown domestically, or on allotments, for consumption; • livestock; • other owned or domestic animals; • wild animals which are the subject of shooting and fishing rights.	For crop, 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 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 pollution linkage, a 20% diminution or loss should be regarded as a benchmark for what constitutes a substantial diminution or loss.
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

	Type of Receptor	Description of harm to that type of receptor that is to be regarded as significant harm
		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.

Determination of the significance, or potential significance of contamination is based upon the principles of risk assessment. These concentrate on the magnitude or consequences of the different types of significant harm caused. The term "possibility of significant harm being caused" should be referring to a measure of the probability, or frequency, of the occurrence of circumstances that would lead to significant harm being caused.

Copeland BC will take into account the following factors in deciding whether the possibility of significant harm being caused is significant;

i) the nature and degree of harm

ii) the susceptibility of the receptors to which harm may be caused

iii) the time scale within which the harm might occur

When considering the time-scale, Copeland BC will take into account any evidence that the current land use will cease in the foreseeable future.

Definitions of *significant* are laid out in the DETR Circular 02/2000, Annex 3, Chapter A, Part 3, Table B, which has been reproduced below.

Table B: DETR guidance table to aide the definition of significant possibility

	Description of significant harm (as defined in Table A)	Conditions for there being a significant possibility of significant harm
1	Human health effects arising from: • the intake of a contaminant, or • other direct bodily contact with a contaminant.	If the amount of pollution in the pollutant linkage in question: • which a human receptor in that linkage might take in, or • to which such a human might otherwise be exposed, as a result of the pathway of that linkage, would represent an unacceptable intake or direct bodily contact, assessed on the basis of relevant information on the toxicological properties of that pollutant. Such an assessment should take into account: • the likely total intake of , or exposure to,

	Description of significant harm (as defined in Table A)	Conditions for there being a significant possibility of significant harm
		the substance or substances which form the pollutant, from all sources including that from the pollutant linkage in question; • the relative contribution of the pollutant linkage in question to the likely aggregate intake of, or exposure to, the relevant substance or substances; and • the duration of the intake or exposure resulting from the pollutant linkage in question. The question of whether an intake or exposure is unacceptable is independent of the number of people who might experience or be affected by that intake or exposure. Toxicological properties should be taken to include carcinogenic, mutagenic, teratogenic, pathogenic, endocrine-disrupting and other similar properties.
2	All other human health effects (particularly by way of explosion or fire).	If the probability, or frequency, of occurrence of significant harm of that description is unacceptable, assessed on the basis of relevant information concerning: • that type of pollutant linkage, or • that type of significant harm arising from other causes. In making such an assessment, the local authority should take into account the levels of risk which have been judged unacceptable in other similar contexts and should give particular weight to cases where the pollutant linkage might cause significant harm which: • would be irreversible or incapable of being treated; • would affect a substantial number of people; • would result from a single incident such as a fire or an explosion; or • would be likely to result from a short term (that is, less than 24-hour) exposure to the pollutant.
3	All ecological system effects.	If either: • significant harm of that description is more likely than not to result from the

	Description of significant harm (as defined in Table A)	Conditions for there being a significant possibility of significant harm
		pollutant linkage in question; or • there is a reasonable possibility of significant harm of that description being caused, and if that harm were to occur, it would result in such a degree of damage to features of special interest at the location in question that they would be beyond any practicable possibility of restoration. Any assessment made for these purposes should take into account relevant information for that type of pollutant linkage, particularly in relation to the ecotoxicological effects of the pollutant.
4	Any animal and crop effects.	If significant harm of that description is more likely than not to result from the pollutant linkage in question, taking into account relevant information for that type of pollutant linkage, particularly in relation to the ecotoxilogical effects of the pollutant.
5	All building effects.	If significant harm of that description is more likely than not to result from the pollutant linkage in question during the expected economic life of the building (or, in the case of a scheduled Ancient Monument, the foreseeable future), taking into account relevant information for that type of pollutant linkage.

Copeland BC understands that references to "relevant information" within the table above, refers to information that is; scientifically based, authoritative, relevant to the assessment of risks arising from contaminants in soil and appropriate to the determination of whether any land is contaminated land for the purposes of part IIA.

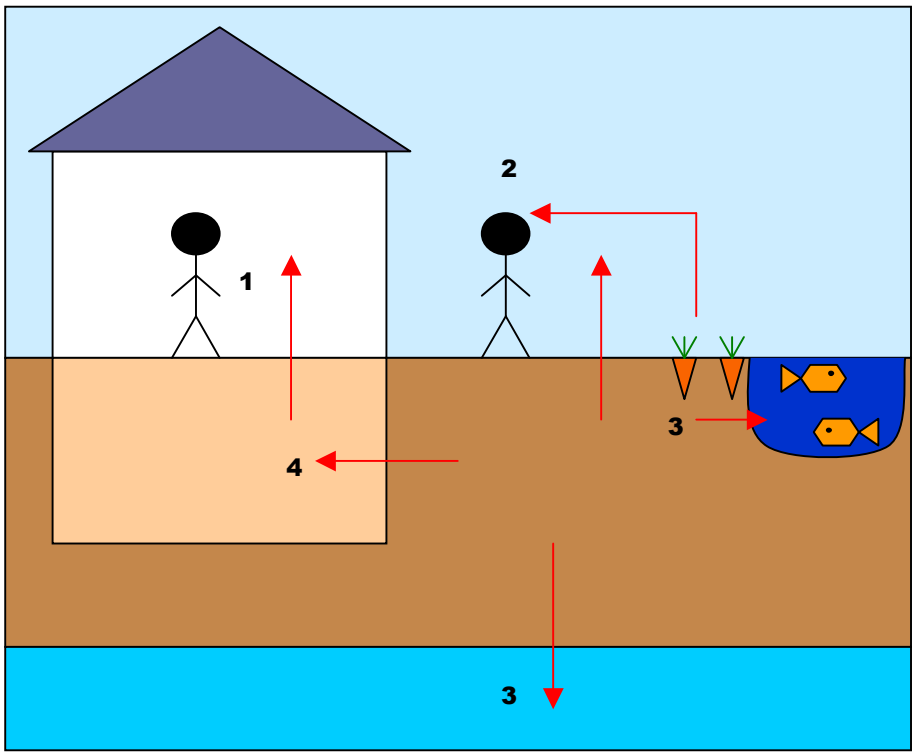
Copeland will also consider determination of significant possibility of significant harm with respect to a non-human receptor, even if parts 3,4 and 5 of Table B (above) are not met. Examples of this would include; there is reasonable possibility of significant harm being caused and the harm would result from a single incident such as a fire, explosion or short term exposure (less than 24 hours).

Establishing a Significant Pollutant Linkage (SPL)

For a site to meet the definition of contaminated, as defined under Part IIA (EPA 1990), a Significant Pollutant Linkage (SPL) must be established and may be described by the term of "Source-Pathway-Receptor".

Therefore, if there is a Source of contamination present on or under the ground within a site, and, a Pathway exists to transport that contamination from the site, to a Receptor to whom significant harm will be caused, the site can be defined as contaminated land under Part IIA (EPA 1990). This Source-Pathway-Receptor SPL will normally be expressed in the form of a Conceptual Site Model.

Figure 1. Example of a Conceptual Model



1. Ingestion/inhalation of dust and vapours.

2. Plant uptake of contaminants & subsequent ingestion.
3. Migration of contamination to surface/groundwater.
4. Migration of contamination to buildings & services.

These stages will follow the model procedures identified in the DEFRA report for the management of land contamination (Contaminated Land Report 11) and will be integrated into a conceptual site model for the site to ensure current best practice is adopted and the statutory duty is fulfilled.

2.2 The Investigation of Contaminated Land

The investigation of contaminated land is divided in to three stages:
Stage One – Desk Study, Site Walkover and Preliminary Risk Assessment
Stage Two – Intrusive Site Investigation and Detailed Risk Assessment
Stage Three – Remediation Strategy and/or Risk Management

Not all sites will require all three stages to be carried out, i.e., if it can be determined that the site under investigation is not "Contaminated Land", after Stage One of the *assessment, then there is no need to progress to a Stage Two assessment.*

Stage One - Desk Study, Site Walkover and Preliminary Risk Assessment

Formal desk studies will be undertaken in accordance with BS 10175:2001*: Investigation of potentially contaminated sites – Code of practice*. During this phase of initial investigation site walkover surveys will be made as necessary.

Access will be sought when necessary, through agreement with the owner or by use of the statutory rights of access granted under section 108 of the Environment Act 1995. This will be referred to as "inspection using statutory powers of entry", in line with the terminology ensconced within the Act.

Stage Two – Intrusive Site Investigation and Detailed Risk Assessment

Intrusive site investigations will only be made or requested in the event that site condition information not being available and it is considered likely that the contamination present is likely to be significant. Any site investigation will be conducted to ensure minimum disturbance to the site and strictly limited to discover whether the site is contaminated.

Where it cannot be established whether a site fulfils the requirement of the Part IIA (EPA1990) regulations to be defined as statutorily "contaminated", investigation action will be taken.

This process will be carried out in accordance with BS 10175:2001*: Investigation of potentially contaminated sites – Code of practice* and BS 5930:1999*, Code of practice for site investigations*. Where necessary, Copeland BC will refer to consultants, using approved annual budget, to receive advice on the toxicological aspects of site investigation.

Information supplied regarding the site and any results from investigation, will be used to feed into the "source – pathway – receptor" risk assessment, described earlier in the initial prioritisation section. A decision can then be made as to whether this fulfils the criteria under Part IIA (EPA 1990) as a contaminated site.

Stage Three – Remediation Strategy and/or Risk Management

Where it is established that a site fulfils the requirement of the Part IIA (EPA1990) regulations to be defined as statutorily "contaminated", remediation action must be taken.

As the enforcing authority, Copeland BC will decide what steps are necessary to cause the land to cease to be contaminated. Consideration will be made to the cost benefit of the works specified and consider their practicability, durability and effectiveness.

Copeland BC recognises that a remediated site does not necessarily mean a site free from contaminants. Remedial action as a minimum should break the source – pathway - target linkage, which could include minor operations such as the building of a fence, or full remediation of the site.

The preferred approach for remediation that Copeland BC will follow is through voluntary agreement with the landowner or responsible person. Should this process prove unsuccessful then a remediation notice will be served.

Action will be taken as soon as the Council is aware that a site is presenting a significant risk to a specified receptor. It is anticipated that the early stages of the rolling works programme will identify the higher risk sites, which will be tackled on a priority basis, within the budgeted resources of the Council.

Site remediation may occur as a result of the enforcement of this strategy or via the redevelopment process under the Town and Country Planning Acts.

Liability

When land has been declared as contaminated, as defined within Part IIA (EPA 1990), and all pollution linkages have been identified, apportionment of liability will be undertaken. This is a complex procedure which relies on identifying **Class A** and **Class B** polluters.

Class A polluters are defined as "the polluter or persons who knowingly permit pollution".

Should it be impossible to identify a **Class A** polluter, responsibility will fall to the **Class B** polluters, who are defined as "the current owner or occupier"

Apportionment will be achieved in five stages, which are;

i) Identify potential appropriate persons and liability groups (e.g. past and current tenants and owners and past and present neighbouring site owners / tenants)

ii) Characterise remediation actions

iii) Attribute responsibility to appropriate members liability groups

iv) Initiate exclusions to appropriate members of the liability groups

v) Apportion liability between responsible members of the liability groups

Appeals

The grounds of valid appeals are laid out in the Contaminated Land (England) Regulations 2000. Should a complaint or challenge arise to a remediation notice, Sections 7 to 9 of the regulations, covering Appeals to Magistrates court, Crown Court and The Secretary of State respectively will be adhered to.

2.3 Determining an area as a Contaminated Land Special Site

Special sites are those sites that become the enforcing responsibility of the Environment Agency because of their particular potential for harm. Regulation 2 of the Contaminated Land (England) Regulations 2000 (S.I. 227) designates contaminated land as a special site if it falls into one or more of the following categories;

i) land to which regulation 3 (SI 227) applies. Regulation 3 (SI 227) outlines impacts upon potable water, water quality of controlled water, water classifications specified in regulations made under section 82 of the Water Resources Act and waters which are wholly or partially contained in any of the rock formations listed in Paragraph 2 of Schedule 1 (SI 277);

ii) land which is contaminated by reason of waste acid tars in, or under the land;

iii) land which any of the following activities have been carried on at any time;

a) purification (including refining) of crude petroleum or of oil extracted from petroleum, shale or any other bituminous substance except coal; or

b) the manufacture or processing of explosives;

iv) land on which a prescribed process designated for central control has been or is being carried out under authorisation where the process does not comprise solely of things being done which are required by way of remediation;

v) land within a nuclear site;

vi) land owned or occupied by or on behalf of ;

a) The Secretary of State of Defence;

b) The Defence Council

c) An international headquarters or defence organisation

d) The service authority of a visiting force,

e) being land used for naval, military or air force purposes

vii) land upon which biological, chemical or nuclear weapons or their delivery systems have been manufactured, produced or disposed of at any time;

viii) land comprising premises which are or were designated by the Secretary of State by an order made under section (1) of the Atomic Weapons Establishment Act 1991;

Copeland currently has one designated Special Site, the former Marchon Works, Whitehaven.

2.4 Regulatory Roles

Copeland BC and the Environment Agency share 4 basic tasks in carrying out their duties under these regulations, these will remain core to this entire strategy;

i) To establish who is responsible for the remediation of land (the "appropriate person(s)").
ii) To decide what remediation is required and then ensure that such remediation takes place. This may be through the agreement of the appropriate person or by serving a remediation notice, or by the authority carrying out the work.
iii) Where a remediation notice is served, or the authority itself carries out the work, to determine who should bear what proportion of the liability for meeting the costs of the work; and
iv) To record prescribed information about the regulatory actions taken on a public register.

The Copeland Borough Council Pt IIA Role

The specific tasks allocated to Copeland BC as principal regulator under the Contaminated Land Regulations Part IIA (EPA1990) can be broadly summarised as;

i) Prepare and publish an inspection strategy

ii) Inspect their area to identify and determine contaminated sites

iii) Consult the Environment Agency (EA) on pollution of controlled waters

iv) Transfer responsibility for "Special Sites" to the EA

v) Provide Information to the EA for inclusion in the State of Contaminated Land Report

vi) Ensure remediation of land identified as contaminated

vii) Maintain remediation register

The responsibility for managing and implementing this Strategy has been placed with the Council's Scientific Officer who is based within the Environmental Health Section.

Although the role for managing the process has been placed with the Scientific Officer, collaboration and support will be required from other sections and departments at Copeland BC, including;

i) Development Control (Planning)

ii) Building Control

iii) Regeneration and Local Plan

iv) Legal Department

v) Business Development

vi) IT (Information Technology)

Once implementation of the strategy has taken place, further collaboration will be required with outside agencies and organisations.

As a standard practice, Copeland will seek expert comment and information regarding each site from the consultees listed below:

i) Environment Agency

ii) English Nature

iii) DEFRA

iv) English Heritage

v) Cumbria County Council

vi) Foods Standard Agency

vii) Statutory Regeneration Bodies.

This information will be sought at the earliest opportunity, to allow the consultees to provide a measured reply.

If a site crosses or is adjacent to the boundary of either of the two neighbouring authorities, Allerdale Borough Council and South Lakeland District Council, or has the potential to affect receptors in those districts there will be liaison with the relevant Contaminated Land Officer for the purposes of sharing information and agreeing on an appropriate course of action which will be determined on a site specific basis.

In addition, the Scientific Officer will nurture a close relationship with the Environment Agency office at Penrith that will facilitate both parties in carrying out their regulatory roles. This liaison will include dialogue with the responsible Environment Agency Officers when advice on pollution of controlled waters, inspection of potential special sites, and site specific information is required.

Where possible, the Council will seek voluntary remediation of sites considered to be contaminated before enforcement action is applied. This approach is in accordance with statutory guidance and follows the spirit of the "equitable, consistent and practical" approach required by the Cabinet Office Enforcement Concordat to which the Council is a signatory

The Environment Agency Role

It has been recognised that the Council will require support from the Environment Agency whilst carrying out its role. This support has been formalised within the legislation and is structured so the Agency will provide support to the local authorities by;

i) Assisting local authorities in identifying contaminated land, particularly in cases where water pollution is involved;
ii) Providing site specific guidance on contaminated land;
iii) Act as the "enforcing authority" for any land designated as a "special site";
iv) Publish periodic reports on contaminated land.

The Environment Agency has a complementary role within Part IIA (EPA 1990) regime. The EA responsibilities can be outlined as follows;

i) Provision of relevant information, held by the EA to Local Authorities

ii) Regulation of Special Sites

iii) To ensure the remediation of Special Sites

iv) Maintain a public register of regulatory action for Special Sites

v) Preparation of a national report on the state of contaminated land

vi) Provision of advice to local authorities on identifying and dealing with pollution of controlled waters

vii) Provision of site-specific advice to local authorities on the remediation of contaminated land

3. Changes to the Framework dealing with Contaminated Land

3.1 Amendments to the Act (EPA 1990 Part IIA)

a) Radioactively Contaminated Land (RCL)

The Part IIA Contaminated Land regulatory regime is due to be extended to include radioactively contaminated land in March 2006. Thereafter, local authorities will have a new duty to inspect land where there are reasonable grounds for believing that it is contaminated due to the presence of radioactively contaminated materials to such an extent that harm is being caused to human beings.

These include any site operated at any time by the MoD, Phosphate Industries, landfills and other sites where the various industries listed in the associated industry profile have been located. Listed below are the recent legislative develoments;

- **RCL (Enabling Powers) (England) Regulations 2005**. Allows changes to Part IIA to be introduced.
- **RCL (Modification of Enactments) (England) Regulations 2006 (Draft).** Makes changes to the primary legislation.
- **Contaminated Land (England) Regulations 2006 (Draft).** Adds RCL as a special site; Regulation 2(1)(l), and, removes the regulation on appeals to a magistrates court.
- **DEFRA Circular** – Annex 2 (description of the regime) and Annex 3 (statutory guidance) (not yet available)

The main procedural stages in relation to RCL for Copeland will be:

1. Ensure inspection of particular land for RCL where there are *reasonable grounds* for that inspection, where *reasonable grounds* relate to:

a) A former historical land use, past practice, past work activity or radiological emergency, capable of causing lasting exposure giving rise to the radiation doses in Appendix 1.

b) Levels of contamination present on the land arising from a past work practice, past work activity or radiological emergency, capable of causing lasting exposure giving rose to the radiation doses in Appendix 1.

c) In the case of land falling within a Nuclear Licensed Site, a statement form the NII that in its opinion the land may be contaminated land but cannot be dealt with under the Nuclear Installations Act.

2. Have regard to EA advice on manner of documentary review and visual inspection where s108 powers are not needed

3. Seek to make arrangements with EA for documentary review and visual inspection if s108 powers are not needed.

4. Always seek to make arrangements with EA for intrusive investigation of potential RCL sites.

For RCL, the only receptor that can be considered in a Significant Pollutant Linkage is human beings – not any of the other receptors that could apply for non RCL, eg property, eco-systems or controlled waters.

Pollutant	Pathway	Receptor
Contains radionuclides that are, or have been, processed as part of a work activity or past practice or the after effects of a radiological emergency, and shall not include radon gas or its short-lived decay products.	✓	Human beings

3.2 Modifications to the assessment criteria

a) The Contaminated Land Exposure Assessment (CLEA) Model

March 2002 saw the launch of a new scientifically-based framework for the assessment of risks to human health from land contamination, replacing the former Interdepartmental Committee on the Redevelopment of Contaminated Land (ICRCL) assessment suite. This was the Contaminated Land Exposure Assessment (CLEA) model, and four supporting reports, which were published by the Department for Environment, Food and Rural Affairs (DEFRA) and the Environment Agency. These resulted from ten years research involving close collaboration with the Department of Health, the Food Standards Agency and the Scottish Environment Protection Agency.

Decisions regarding contaminated land and brownfield sites can now be based on sound science, thus removing doubt and potential blight from many sites. Sites that could present a possibility of significant harm to human health will also be easier to identify.

When dealing with potentially contaminated sites, the most important question is: *does the concentration of contaminant X pose a significant risk to human health or the environment?* The CLEA model and emerging Soil Guideline Values (SGVs) will help to answer this question with respect to human health.

b) Soil Guideline Values (SGV's)

SGVs represent 'intervention values' which indicate to an assessor that soil concentrations above this level could pose an unacceptable risk to the health of site users and that further investigation or remediation is required.

Combining authoritative science and policy judgements, SGVs have been derived for a range of contaminants for three typical land uses: residential, allotments and industrial/commercial.

DEFRA guidance on the use of SGV's are listed in Appendix 2

3.3 Interaction with other legislative regimes

Government policy has introduced a range of regimes aimed at achieving sustainable development. For example the Integrated Pollution Prevention and Control (IPPC) legislation is aimed at preventing new contaminated land sites. The new contaminated land legislation together with other statutory controls such as planning, primarily focus on land that has been contaminated in the past.

The following regimes currently deal with or have prevented contamination in the past:

a) Statutory Nuisance

Part III of the Environmental Protection Act 1990 was the main mechanism for local authorities to take action against contamination land if it was considered to be prejudicial to health or a nuisance prior to the implementation of Part IIA. This was effective in dealing with the immediate health or nuisance problem, but did not always deal with other aspects associated with contaminated land. However the statutory nuisance regime will still apply to the effects of deposits of substances on land which give rise to such offence to human senses (such as stenches) as to constitute a

nuisance. The exclusion of statutory nuisance applies only to harm (as defined by section 78A(4) of the1990 Act) and the pollution of controlled waters.

b) Planning Regimes

The planning regime has historically dealt with the majority of contaminated sites and will continue to ensure that any development on sites with contamination are "suitable for any new use", as land contamination is a material planning consideration as set out in the Planning Policy Statement, Planning and Pollution Control (PPS23).
The current trend toward the redevelopment of Brownfield sites will ensure that planning controls play an integral part in managing contaminated land.

c) Water Pollution

i) Sections 161 and 161D of the Water Resources Act 1991
Gives the Environment Agency powers to prevent the continuation of contamination to controlled waters. This act is effective in preventing water pollution issues however it would not necessarily remedy the underlying land contamination aspects of a pollutant. The use of work notices implemented under the Act is restricted to current or historical pollution of surface water or groundwater outside the scope of Part IIA. More notebly used in emergency situations

ii) Section 86 of the Water Act 2003
Amended the definition of contaminated land. The first stage of commencement took effect on 1 October 2004. This makes clear that (for the purposes of Part IIA only), "ground waters" does not include waters above the saturation zone. This will ensure that the regime deals effectively with situations where contaminating substances have left the surface of land, are contained in underground strata, but have not yet fully entered the saturation zone.

This change has been made by the second Water Act Commencement Order, SI 2004 No 2528.

What does this mean?
The result is that all references to "controlled waters" for the purposes of Part IIA in England and Wales are subject to a revised definition of controlled waters, which now reads in full as follows:
""Controlled waters" –
(a) in relation to England and Wales, has the same meaning as in Part III of the Water Resources Act 1991, except that "ground water" does not include waters contained in underground strata but above the saturation zone"; and
(b) in relation to Scotland, has the same meaning as……" etc

Other changes to follow
Section 86, once fully commenced, will amend the crucial definition of "contaminated land" in section 78A(2) of the 1990 Act, which sets the scope of the contaminated land regime. It will amend subsection (2)(b) so that Part IIA will only apply where "significant" pollution of controlled waters is being caused, or there is a "significant" possibility of such pollution being caused. This will ensure that only "significant" water pollution will trigger the regime, thus avoiding land being formally identified as

"contaminated land" on the basis of very small amounts of matter entering controlled waters.

Section 86 provides for statutory guidance to be issued by the Secretary of State for the determination of what is "significant" pollution in this context; and it makes some consequential amendments.

Further Implementation & Commencement

In England, after the proposed new guidance has been fully developed and consulted on, including statutory processes, and is ready to be formally issued, the main change to the definition would be commenced. DEFRA will be discussing with interested parties the development of the proposed new guidance, with a view to preparing a draft of the guidance itself for wider consultation. The timing of the changes is yet to be decided, one key issue being the relationship between the new guidance and the implementation arrangements for the new EC Water Framework Directive.

d) Pollution Prevention and Control Act 1999

Under the Pollution Prevention Control Act 1999, both the Environment Agency and Local Authorities have power to deal with pollution to Air, Water and Land. Under the Pollution Prevention and Control (England & Wales) Regulations 2000 the Environment Agency has responsibility for emissions to Air, Water and Land from Part A and A1 installations. District Councils have responsibility for preventing or controlling emissions to air only from Part B installations and preventing emissions to air, water and land from Part A2 installations.

These legislative requirements place conditions on industry to prevent or control emissions where possible.

e) Waste Management Licensing

The Environment Agency, as the "waste regulation authority" for the District, has powers under Section 59 of the Environmental Protection Act 1990, to deal with illegally deposited controlled waste. These powers permit the Agency to remove, or require the removal of the waste, and to take other steps to eliminate or reduce the consequences of the deposit of waste.
If it is considered that these circumstances might apply, then the Environment Agency will be consulted.

f) Clean Neighbourhoods and Environment Act 2005

The Clean Neighbourhoods and Environment Act 2005 aims to provide local authorities and agencies with a more effective tool-kit to improve local environmental quality and enhance public spaces, thus contributing to cleaner and safer communities.

g) Conservation

Copeland BC is required by the various pieces of legislation and statutory guidance listed below to take nature conservation interests into account in the discharge of its functions

- The Conservation (Natural Habitats &c) Regulations 1994, which may require an appropriate assessment to be made if remediation is taking place within or near to a Nature 2000 site;
- The Wildlife and Countryside Act, as amended by the Countryside Rights of Way Act 2000, that relates to the protection of Sites of Special Scientific Interest (SSSI); and
- Planning Policy Guidance PPG 9 on Nature Conservation.

The unique land characteristics which makes up Copeland is recognised locally, nationally and internationally and many sites are covered by more than one conservation order. Appendix3 shows a list of the conservation sites within the Borough. Digital boundaries of statutory sites are available on:

http://www.english-nature.org.uk/pubs/gis/GIS_register.asp

i) Environmental Information Regulations 2004

Information held by the Council in relation to the investigation of Contaminated Land, will be subject to the Environmental Information Regulations 2004 and other relevant legislation. These regulations outline the obligation to make environmental information available subject to exceptions (eg relating to national defence or public security, legal or other proceedings and commercial or industrial confidential information). Some information held will not be open for public access if the land is still under investigation and no determination of contamination has yet been made. Access to other information, particularly public requesting details of determined sites, will be available during office hours by prior arrangement at the Council Offices at The Copeland Centre, Whitehaven.

j) The Building Regulations 2000 (Site preparation and resistance to contaminants and moisture. 2004 Edition)

This edition of Approved Document C, Site preparation and resistance to contaminants and moisture, replaces the 1992 (with 2000 amendments) edition. The main changes in the 2004 edition are:

C1 Site preparation and resistance to contaminants

Site preparation
a) Site investigation is now recommended as the method for determining how much unsuitable material should be removed.

Resistance to contaminants
b) Requirement C1(2) now applies to material change of use as set out in Regulations 5 and 6.

c) Remedial measures for dealing with land affected by contaminants have been expanded to include biological, chemical and physical treatment processes.
d) The area of land that is subject to measures to deal with contaminants now includes the land around the building.
d) Guidance on protection from radon is expanded to include buildings other than dwellings.

Sub-soil drainage
f) Guidance is included relating to sub-soil drainage and the risk of transportation of water-borne contaminants.

3.4 Interactions with other Policies

a) Copeland Borough Council Local Plan 2001 – 2016, 2nd Deposit Version April 2005

Relating to all of the Borough outside the Lake District National Park, this plan sets out the Council's policies and proposals for the future development and use of land, improvements of the physical environment and management of traffic. The following policies are taken from The Environment section of the Plan:

6.6 DERELICT AND CONTAMINATED LAND

6.6.1 Whilst Copeland has much fine landscape it also has a significant amount of land which is derelict as a result of past industrial activity. The Council maintains a register of derelict land through the National Land Uses Database which is updated annually. In 2003 the plan area contained 195ha of derelict land. Many of these sites are located in rural areas and therefore may only have potential environmental or soft end uses. Of the sites within settlements, most are allocated within the plan or already have planning permission for development.

6.6.2 Where the opportunity arises the Council will work with Cumbria County Council and The North West Development Agency through the Land Reclamation Programme in seeking to reclaim derelict and underused brownfield land for appropriate use.

POLICY ENV 17: Derelict Land

The Council will seek to reclaim land identified as derelict. The Council will also protect and where possible enhance any nature conservation and archaeological interests associated with these sites

6.6.3 Industry in Copeland has brought about many advantages to the area, but in some cases, a legacy of contamination has remained on and around industrial sites. In an effort to deal with this legacy, the Council is following the Government's 'Contaminated Land Regulations' which aim to: identify land causing unacceptable risk to human health or the wider environment; bring damaged land back into beneficial use and; ensure remediation costs are proportionate and economically sustainable. The Council's published Inspection Strategy outlines how the Council will identify

Contaminated Land, and a detailed Prioritisation Procedure, prioritises sites for inspection based on a methodological risk assessment.

6.6.4 Copeland Borough Council has prepared a Contaminated Land Strategy under Part IIA of the Environmental Protection Act 1990. The Council will develop a database of potentially contaminated sites, these sites will then be prioritised for remediation. A remediation register, consisting of sites no longer considered contaminated will then be maintained. This will ensure that development on, or adjoining, potentially contaminated land only takes place when contamination is shown not to be present, or the pollutant linkage has been broken

6.6.5 The Council will encourage the remediation and re use of contaminated land. Where proposals are acceptable in principle on contaminated land a site investigation and risk assessment in accordance with relevant and current guidelines and protocols will be required before the application is determined. Where land is suspected to be contaminated planning permission will be granted subject to conditions requiring a site investigation and risk assessment prior to development proceeding. In both scenarios development will be required to include all necessary remedial measures. Any treatment of the land should not endanger public health or the environment or be discharged to public sewers without agreement from the statutory sewerage undertaker.

POLICY ENV 18: Contaminated Land

Where a proposed development is located on land known to be contaminated, site investigation works and remediation strategies must be submitted as part of the planning application. Where land is suspected to be contaminated, planning conditions will be imposed to ensure that all appropriate remedial measures are taken.

4. Contaminated Land Information in Copeland

Information held by the Council in relation to the investigation of Contaminated Land, will be subject to the Environmental Information Regulations 2004 and other relevant legislation.

4.1 Gathering, Handling & Storage of Information

Electronic Data

A complementary Microsoft Access database has been created specifically for the purpose of handling data for the Part IIA regulations. This package is known as LACI-DB or Local Authority Contamination Index – Database. This database will be used to screen all planning applications to identify proposed developments which may be on, or adjacent to, potentially contaminated land sites.

To ensure consistent data management, LACI-DB will have a restricted access for data entry, although it will be available for the dissemination of information for the purposes of the public register and public requests for information.

The database will be updated as and when new information/legislation applies.

Hard Copy Data Storage

A hard copy paper filing system has been created and is held within Environmental Health Section of the Council. An individual file with unique identification number has been created for each site identified as potentially contaminated, and as such, currently being investigated.

Copeland BC will only place information in the public domain once any investigations upon specific sites have been completed. The Contaminated Land Public Register will be held with other public registers within the Environmental Health Section. Information to be included with the public register includes;

- remediation notices
- remediation statements
- remediation declarations,
- appeals against remediation notices
- appeals against charging notices
- designated special sites
- notification of claimed remediation
- convictions for offences under section 78M
- guidance issued and other environmental controls.

Information collected regarding potentially contaminated sites will be stored in two formats.

Contaminated Land Register
Section 78R of the Environmental Protection Act 1990 requires the Authority to maintain a Public Register of land designated as Contaminated Land. The Environmental Protection Group of the Council will hold this register. Access to the register will be available by prior arrangement during office hours from the Council Offices at South Lakeland House, Kendal.

4.2 Exchange of Information

Local Authority Departments
Information collected by the Authority in carrying out its duties under Part IIA, will be made available to other Council departments on request.

Provision of Information to the Environment Agency
Information exchange with the Environment Agency will be based on the memorandum of Understanding Environment Agency and Local Government Association Protocol for Land Contamination.
For formal consultation the Authority will use the standard agreed forms to simplify information exchange. Informal consultation will be via telephone and letters.

Enquiries from the Public

Copeland BC expects to receive enquiries regarding contamination from the public or other interested parties, especially developers. These will be recorded and dealt with in

accordance the present procedures for dealing with service requests within the Environmental Health part of the Development & Environment Department.

Information arising from a complaint will be validated and substantiated before action is taken. All persons providing information will be required to supply their names and addresses. Personal identities will remain confidential unless they are required to be released in the event of any legal action being taken by Copeland BC.

Anonymous information regarding contaminated land will not be acted upon, unless there is an implied immediate threat to controlled waters or to human life. Where it is possible to make an initial visual assessment, which can be made without gaining permission to enter a site or land, this may be undertaken on a case by case basis.

5. Measurement of progress

Two new environmental Best Value performance indicators, along with many other changes to the BVPI regime, came into effect on 1 April 2005. These are "Identifying contaminated land" – BV216A; and "Information on contaminated land" - BV216B.

In simple terms, how do the BVs work?
The basic idea is simple. BV216A is a total of "sites of potential concern", which is made up of two types, **(a)** and **(b)**. Sites turn from type **(a)** to type **(b)** as progress is made each year in getting enough information to decide if a site needs remediation. Type **(b) –** is compared to the total, which provides the percentage required under BV 216B.

So, a local authority decides how many "sites of potential concern" it has, at the start of the year. This term is defined, and in essence means sites where remediation **may be** needed.

Type a is where sufficient detailed information is not yet available to decide whether or not remediation is needed, and **type b** is where there is sufficient detailed information to make this decision.

These two categories are added up to make the figure reported for BV216A, which is for 1 April (eg 1 April 2005). For BV216B, a figure for 31 March of the next year is required. This is the **type b** cases in the year, as a percentage of the figure for the previous 1 April figure for BV 216A. Both are reported at the end of the year in question, and should thereby show progress over the year in turning **type a** cases into **type b** cases, against the background of the overall total of cases. Please note that the BVs are **not** about remediation, but information.

What purpose do BV216 A & B serve?
This is shown in the ODPM guidance for each indicator. In short, they help show progress in identifying sites of potential concern, and in acquiring information about those sites which enables a decision to be made in each case about whether or not remediation is needed. We hope this will help bring more recognition for land contamination work by local authorities.

6. Reviewed Strategy Outcomes

6.1 Reviewed Priorities

The Council's priorities remain consistent and balanced approach is required to deal with the complex and sometimes contentious issues that arise when regulating against contamination on sites. Thus the priorities which Copeland BC will adopt will be consistent with the legislative guidance issued.

Copeland Borough Council Strategy Priorities;

i) Protect human health

ii) Protect controlled waters

iii) Protect designated eco-systems

iv) Prevent damage to property

v) Prevent further contamination of land

vi) Encourage voluntary remediation

vii) Encourage the re-use of brownfield land

6.2 Reviewed Objectives

Accepting the priorities set out above and accessing Capital Funding Support where available, the Council will strive to;

i) protect human health the environment and property

ii) promote the remediation of brown field sites through re-development, thus effectively tackling contamination through the planning process

iii) address all contaminated sites on a priority basis, thus focusing available resources at the most urgent issues

iv) encourage voluntary remediation of sites by polluters or appropriate persons

v) fulfil its role as primary regulator by ensuring compliance with Part IIA (EPA1990) and enforce breaches of that legislation

vi) treat Council held land equally to land that is held by other parties, applying the legislation on a priority basis

vii) To encourage an ethos within the Copeland BC organisation to avoid new liability issues associated with land acquisitions and council operations

viii) Take an active, integrated interest in the current condition of, and progress with, designated 'special sites' within the Borough. This will entail use of existing partnerships and the promotion of public information with the aim of enhancing the Borough, its image and future prospects.

ix) Work closely with Planning & Building Control to have potentially contaminated sites inspected and, where necessary, remediated.

6.3 Reviewed Process of Implementation

The following flow chart gives a step by step representation of the processes the Council will continue to undertake to ensure the successful compliance with all portions of the Part IIA regulations by Copeland BC;

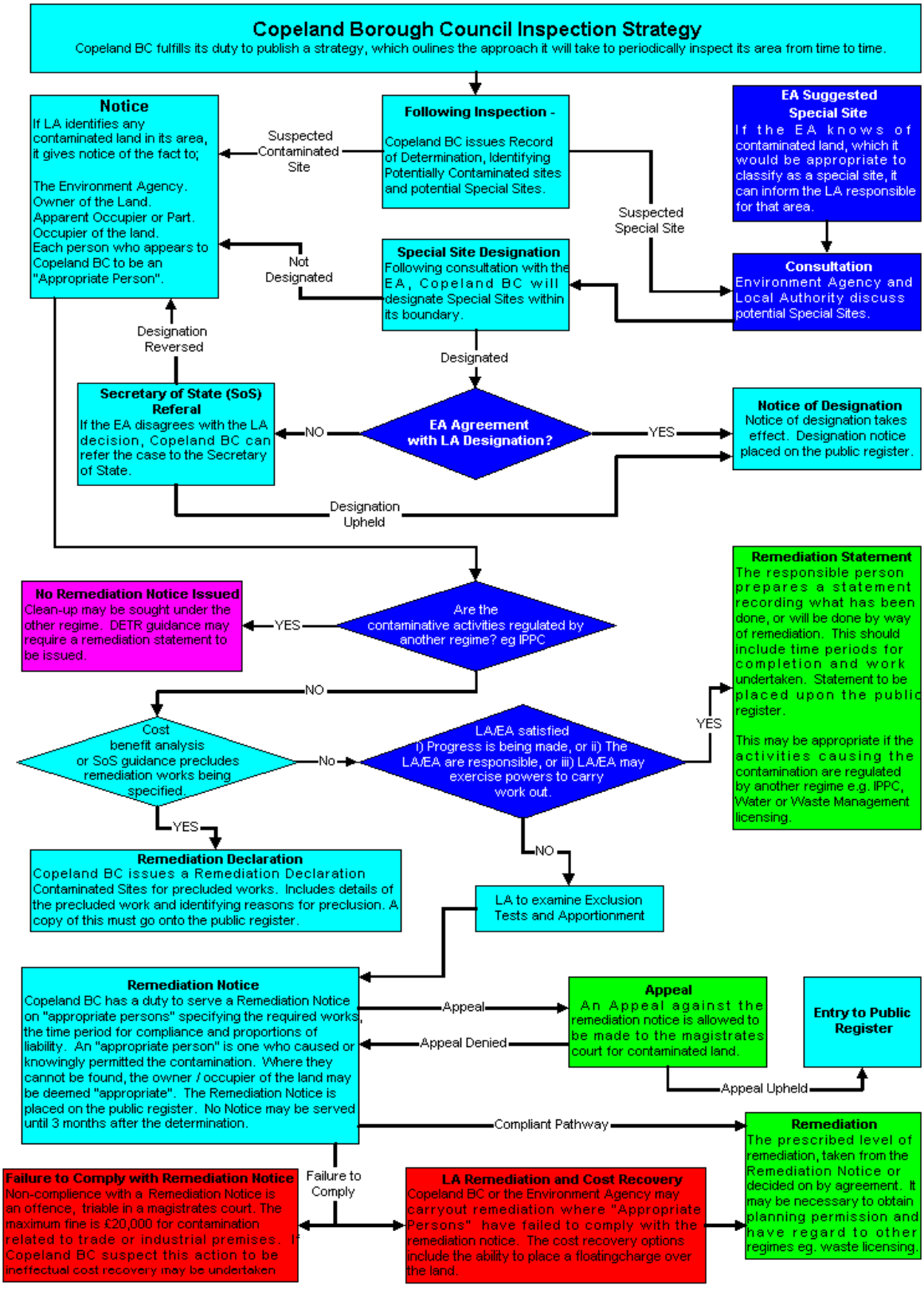


Fig.2 Process of Implementation

7. Outline of the Council's Contaminated Land Work

Table C shows work achieved to date and proposed new targets:

Table C: Outline of the Council's Contaminated Land Work

Activity	Target Date	Completion Date
Publish Inspection Strategy	July 2001	July 2001
Geographical Information System and Data Handling System	Summer 2001	July 2003*
Initial identification of Potentially Contaminated Sites	December 2002	December 2004*
Initial prioritisation	December 2003	December 2005*
Rolling programme of works	December 2005	Ongoing
Strategy Review	January 2006	April 2006 (Publication)
Proposed Future Work…		
Maintain & update the LACI-DB	Ongoing	
Screen all Planning Applications against LACI-DB	Weekly basis	
Respond to enquiries & complaints about Contaminated Land issues	10 days	
Publish BVPI 216a & b findings	Quarterly.	
Complete Detailed inspection of all *Priority a* Potentially Contaminated Land Sites	April 2010	
Strategy Review	April 2010	

* Target date exceeded due to changes in personnel and staffing levels.

8. Second Review of Strategy

Copeland BC will review this strategy again in January 2010, following which a plan for continuing the administration of contaminated sites within the Copeland BC area will be implemented for a further 5 years.

This review will be implemented before January 2010, if changes in legislation demand that this is necessary.

Appendix 1

Radioactively Contaminated Land (RCL) Determination

Chapter A of the revised statutory guidance is very specific about what is to be considered as harm attributable to radioactive substances –

Harm being caused:

Lasting exposure exceeding:

- An effective dose of 3 milliseieverts per annum
- An equivalent dose to the lens of the eye of 15 milliseieverts per annum
- An equivalent dose to the skin of 50 millisieverts per annum
- Should not include the local background level of radiation from the natural environment

Where the potential doses shown below are within certain levels, the potential annual effective dose from lasting exposure is multiplied by the probability of the dose being received. If the result is greater than 3 millisieverts then this is considered a significant possibility of significant harm.

Significant possibility of harm being caused:

- Potential annual effective dose $\leq$ 50 millisieverts; and
- Potential annual dose equivalents to lens of eye $\leq$ 15 millisieverts; and
- Potential annual dose equivalents to skin of $\leq$ 50 millisieverts per annum; and
- Potential annual effective dose from lasting exposure multiplied by probability of dose being received >3 millisieverts.

Appendix 2

CLAN 2/05 Soil Guideline Values and the Determination of Land as Contaminated Land under Part IIA

Introduction

1. This note has been prepared by Defra in response to questions about the use of Soil Guidelines Values (SGVs)1 for the determination of land as contaminated land under Part IIA of the Environmental Protection Act (EPA) 1990. It has two main purposes:

a) to restate the basis upon which SGVs have been derived, to help ensure they are not used uncritically for the determination of land as contaminated land on the grounds of "significant possibility of significant harm" to human health;
b) to advise local authorities and others about the work being carried out by the Soil Guideline Value Task Force in developing more detailed guidance on this issue.

SGVs – Basis of Derivation

2. Published SGVs have been produced using Health Criteria Values (HCVs or benchmarks of the human toxicity of substance(s)), and the Contaminated Land Exposure Assessment (CLEA) methodology which estimates the amount of substance an individual would take in as a result of exposure to soil under defined conditions. SGVs provide a link between the concentration of a particular contaminant in the soil and the health risks defined at the HCV under the defined conditions.
3. Depending on the toxicological effects of the substances concerned, HCVs are defined in one of two ways2:
• For substances that have a threshold effect, the HCV is set at the Tolerable Daily Intake (TDI). The TDI is *"an estimate of the amount of a contaminant, expressed on a body weight basis, that can be ingested daily over a lifetime without appreciable health risk".*
• For non-threshold substances (that is, substances which carry some level of risk at any level of exposure) the HCV is set at the Index Dose (ID). The ID is *"The daily dose of a chemical that can be considered to present a minimal health risk from exposure to soil contaminants".*
4. In addition, SGVs are generic assessment criteria and include a number of precautionary assumptions (see for example fig 3.1 in CLR 10).

1 For copies of SGVs and other technical material referred to in this note see :- www.environmentagency.gov.uk/subjects/landquality/113813/672771/

2 Defra/Environment Agency, Contaminants in Soil: Collation of Toxicological Data and Intake Values for
Humans, CLR 9, 2002

5. The overall effect is that SGVs mark the concentration of a substance in soil at or below which human exposure can be considered to represent a 'tolerable' (where the relevant HCV is a TDI) or 'minimal' (where the HCV is an ID) level of risk.
6. As indicated in much of the existing published material about SGVs and CLEA,

etc, exceedance can indicate to an assessor that further assessment or remedial action **may** be needed. (At the same time, non-exceedance will indicate that risk is acceptable and that land is suitable for its use, with regard to the contaminant in question.) It is important, however, to consider the further explanatory material below.

Requirements under Part IIA

7. Tables A and B in Chapter A of the statutory guidance to Part IIA of the EPA 19903 describe (amongst other things) what is 'significant harm' and the conditions that have to be in place for a "significant possibility of significant harm" to exist in relation to human health effects. The statutory guidance has the force of law.

8. Part 4 of Chapter B of the statutory guidance (which deals with the manner in which the determination of contaminated land is to be carried out) and Table B of Chapter A, in particular, make it clear that to determine land as contaminated land on the grounds of a "significant possibility of significant harm" to human health, the local authority must be satisfied that:

"the amount of the pollutant in the pollutant linkage in question:

- *which a human receptor in that linkage might take in,*

or

- *to which such a human might otherwise be exposed, as a result of the pathway in that linkage, would represent an* ***unacceptable*** *intake or direct bodily contact, assessed on the basis of relevant information on the toxicological properties of that pollutant".*

9. If a local authority chose to use an SGV as part of an appropriate scientific and technical assessment of evidence on the condition of a piece of land, and that assessment provided the basis for determination, the authority would have to make a firm and deliberate judgement about whether the estimated contaminant intake, in comparison to an SGV (and the HCV on which it is based), "would represent an **unacceptable** intake or direct bodily contact…". Such a judgement might be subject to scrutiny in the event of any subsequent appeal, so should be appropriately recorded.

10. Given the definition of HCVs set out in CLR 9 (and above), and the nature of the CLEA methodology, it should be a matter for careful consideration by local authorities whether concentrations of substances in soil equal to, or not significantly greater than, an SGV would meet the legal test set out in Table B. From discussions within the Soil Guideline Value Task Force (see below) it is apparent that there is a wide body of opinion that such concentrations would not necessarily satisfy that legal test.

3 Annex 3 of DETR Circular 02/2000, Contaminated Land: Implementation of Part IIA of the Environmental Protection Act 1990 This remains the case where the site corresponds to the generic model used to produce an SGV. This view would also apply to any assessment criteria or site specific criteria generated (in the absence of an SGV) using a published HCV and the CLEA software (or other exposure model).

11. It should be noted that CLR7-10, and the related Tox and SGV reports, **do not state** that exceedance of an SGV, properly applied, would meet this legal test.

12. A key question, clearly, is then how far above an SGV the relevant soil concentration would have to be to meet the 'unacceptable intake' test. At the present time the published Defra/Environment Agency technical guidance on risk assessment does not address this issue.

SGV Task Force (SGVTF)

13. The SGVTF was an initiative of the Cabinet Office Better Regulation Team and government departments and agencies most involved in the publication of the

Defra/Environment Agency soil guideline values and related materials, to look at a number of issues. At the beginning of 2005, membership expanded to include a number of the key representative bodies and experts in the contaminated land field who make use of SGVs, including of course local authorities and the private sector. A key issue for the Task Force has been to explore the role of SGVs, their derivation, and the need for improved and/or additional technical guidance.

14. As indicated above, the Task Force recognises that there are questions about the relationship between SGVs and the decisions in relation to risk which are required to be taken under Part IIA of the Environmental Protection Act 1990 in determining land as being "contaminated land. It is recognised that clear, authoritative technical guidance needs to be available to local authorities that will support the necessary judgements to be made about "unacceptable intake" in particular cases.

Next steps

15. Under the direction of the Task Force, a team has been set up to make recommendations on this issue. These recommendations and their implications will be considered by the SGVTF, with a view to establishing a clear way forward, including possible further guidance. The need for urgency in identifying and delivering solutions is fully recognised by all those involved in the production of SGVs and related material.

16. The current SGVs and related technical materials are useful and valuable tools for assessors, so long as they, and what they represent and can tell the assessor, are correctly understood. The intention is to continue production of SGVs and Tox reports, under the current scientific framework, and to consider solutions alongside this material.

17. Further information will be made available as this work advances. In the meantime, the key points in this note are at paragraphs 9, 10 and 11 above.

Defra/LEQ

1 September 2005

Appendix 3

Statutory Nature Conservation Sites within Copeland Borough

SSSI = Site of Special Scientific Interest
cSAC = candidate Special Area of Conservation
SPA = Special Protection Area
Ramsar = Site declared under the Ramsar Convention
NNR = National Nature Reserve
LNR = Local Nature Reserve

Site	Designation	Feature
Annaside	SSSI	Natterjack Toad
Annaside and Gutterby Banks	SSSI	Geological
Beckfoot Quarry	SSSI	Geological
Black Moss	SSSI	Lowland raised mire
Bowness Knot	SSSI	Geological
Brantrake Moss & Devoke Water	SSSI	Upland valley mire, Acid flush, Meso-oligotrophic open water
Buckbarrow Beck	SSSI	Geological
Clints Quarry	SSSI *cSAC*	Geological, Disused limestone quarry flora *Great Crested Newt*
Cropple How Mire	SSSI	Soligenous mire, Basin mire, Mixed scrub over fen peat
Drigg Coast	SSSI *cSAC* European marine site	Sand dune including dune grassland + heath. Vegetated shingle, Saltmarsh, Plant assemblage, Odonata assemblage, Natterjack toads, Amphibian assemblage, Ringed plover *Coastal dune heathland, dunes with creeping willow, Estuaries (dune grassland, Atlantic salt meadows, shifting dunes, humid dune slacks, intertidal mudflats and sandflats, glasswort and other annuals colonizing mud and sand, shifting dunes with marram)*
Drigg Dunes & Gullery	LNR	
Drigg Holme	SSSI	Unimproved neutral grassland NVC type MG4, Unimproved acid marshy grassland
Duddon Estuary	SSSI *cSAC* European marine site	Geological, Saltmarsh, Shingle, Sand dune, Coastal lagoon, Vascular plants, Wintering birds, Natterjack toads, Invertebrate assemblage, Breeding birds *Atlantic salt meadows, intertidal mudflats and sandflats, coastal shingle vegetation outside the reach of waves, glasswort and other*

Site	Designation	Feature
Continued... Duddon Estuary continued	SPA Ramsar	*annuals colonizing mud and sand* Breeding Sandwich tern and wintering birds Natterjack toad, wetland plants and invertebrates, passage waders, wintering birds, breeding Sandwich tern
Duddon Mosses	SSSI *cSAC*	Lowland raised mire, Valley mire, Invertebrate assemblage *Active and degraded bogs*
Duddon Valley Woodlands	SSSI	Ancient Woodland (largest area in Cumbria) NVC types W11, W17, W9, W7, W4, W10, W16, Variety of woodland types, Dormouse
Ennerdale	SSSI, *cSAC*	Oligotrophic lake *Acidic scree*
Florence Mine	SSSI	Geological
Greendale Mires	SSSI	Soligenous mire, Basin mire
Haile Great Wood	SSSI	Woodland; Peterken types 3D, 6Ac, 7B
Hallsenna Moor	SSSI, NNR	Wet and dry dwarf shrub heath, Basin mire, Acid marshy grassland, Poor fen
High Leys	SSSI, NNR	Neutral grassland, Marshy acid and neutral grassland
Low Church Moss	SSSI	Poor fen, Swamp
Milkingstead Wood	SSSI	Woodland, Peterken types 6ab, 7bb, 6bc, 7bc
Miterdale Head Wood	SSSI	Woodland 12b
Nab Gill Mine	SSSI	Geological
Pillar and Ennerdale	SSSI *cSAC*	Heathland, grassland, species-rich ledges, plant assemblage *Plants in crevices in base-rich rocks, tall herb communities, plants in crevices on acid rocks, acidic scree, blanket bog, species-rich grassland with mat grass in upland areas, calcium-rich springwater fed fens, alpine and subalpine heaths, slender green feather moss, European dry heaths, juniper on heaths or limestone grassland, wet heathland with crossleaved heath, western acidic oak woodland, clear water lakes or lochs with aquatic vegetation and poor to moderate nutrient levels, montane acid grasslands*
Ray and Crinkle Crags	SSSI	Geological
River Calder	SSSI	Geological

Site	Designation	Feature
Section		
River Derwent & Tributaries	SSSI *cSAC*	Type VIII oligo-mesotrophic river, Whole river, Luronium natans, River, Brook and Sea lamprey, Salmon, Vendace, Char, Pearl mussel, Vertigo lilljeborgi (snail), Donacia aquatica (beetle), Invertebrate assemblage, Otter *River, brook and sea lampreys, , clear water lakes or lochs with aquatic vegetation and poor to moderate nutrient levels, Atlantic salmon, floating water plantain, Otter, rivers with floating vegetation often dominated by water crowfoot*
River Ehen	SSSI *cSAC*	Freshwater pearl mussel *Freshwater pearl mussel, Atlantic salmon*
Scafell Pikes	SSSI cSAC	Upland summit boulder field, Rhacomitrium heath, Species rich upland ledges, Upland oligotrophic tarns *Plants in crevices in base-rich rocks, tall herb communities, plants in crevices on acid rocks, acidic scree, blanket bog, species-rich grassland with mat grass in upland areas, calcium-rich springwater fed fens, alpine and subalpine heaths, slender green feather moss, European dry heaths, juniper on heaths or limestone grassland, wet heathland with crossleaved heath, western acidic oak woodland, clear water lakes or lochs with aquatic vegetation and poor to moderate nutrient levels, montane acid grasslands*
Scales Wood	SSSI	Woodland, Peterken types 6Ab, 12a, Lichens/bryophytes
Shaw Meadows & Sea Pasture	SSSI	Heathland (lowland) Grassland NVC types , MG5/CG10 mosaic, Mire M6
Silver Tarn, Hollas & Harnsey Mosses	SSSI	Poor fen, Raised mire, Open water, Basin mire
St Bees Head	SSSI	Geological, Sea cliff vegetation, Breeding seabirds
Stanley Ghyll	SSSI	Mosses, liverworts, lichens assemblages
Waberthwaite Quarry	SSSI	Geological
Wasdale Screes	SSSI	Geological, Acid screes/cliffs, Plant assemblage
Wastwater	SSSI	Geological, Oligotrophic standing water, Arctic char.

Site	Designation	Feature
Continued… Wastwater	*cSAC*	*clear water lakes or lochs with aquatic vegetation and poor to moderate nutrient levels*
Yeathouse Quarry	SSSI	Geological