

## **EXECUTIVE SUMMARY**

This document is the Contaminated Land Strategy for Richmondshire District Council.

The Authority produced an original strategy in 2001 as required by Part 2A of the Environmental Protection Act 1990 with Richmondshire District Council reviewing the Strategy in 2005.

Since then, there have been updates to the Regulations and major changes to the Statutory Guidance issued by Defra and also the approach to risk assessment in the UK which underpins assessment of land affected by contamination and the regulatory role played by local authorities.

The Strategy has been written to reflect the changes to the new Defra Statutory Guidance issued in April 2012 and outlines how the authority will identify, prioritise, inspect and, where required, determine land as contaminated land, and how remediation will be secured.

The Strategy considers the Priority Aims and Objectives of the authority and takes into consideration the diverse natural setting of the district and local circumstances when deciding how to deal with land contamination.

The Strategy outlines a list of Priority Actions and Timescales for achieving these actions and policies and procedures that the authority will adopt when faced with specific issues such as orphan sites, pollution incidents, hardship and risks to human health or controlled waters.

The Strategy also presents sections on how information is obtained and evaluated, how information is managed, how information will be communicated and with whom, and how, when and why decisions and information will be reviewed.

# TABLE OF CONTENTS

1.	Introduction .....	1
1.1	General Policies of the Local Authority.....	1
1.2	Regulatory Context .....	1
1.2.1	Legislation.....	1
1.2.2	Radioactive Contamination .....	2
1.2.3	Regulatory Role of Enforcing Authorities.....	3
1.2.4	Definition of Contaminated Land under Part 2A .....	3
1.2.5	Categories of Harm .....	4
1.2.5.1	Human Health .....	4
1.2.5.2	Non-Human (Ecological and Property) Receptors .....	5
1.2.5.3	Controlled Waters.....	5
1.2.6	Principles of Risk Assessment .....	7
1.2.7	Contaminant Linkages .....	7
1.2.8	Requirement for a Strategic Approach .....	8
2.	Characteristics of the Council Area .....	9
2.1	Richmondshire District Council Area .....	9
2.1.1	Geographical Size and Location.....	9
2.1.2	Population Distribution .....	9
2.1.3	Council Owned Land and Property.....	9
2.1.4	Current Land Use.....	9
2.1.5	Protected Locations .....	10
2.1.6	Key Property Types.....	10
2.1.7	Water Resources .....	10
2.1.8	Known Information on Contamination.....	11
2.1.9	Current and Past Industrial History.....	11
2.1.10	Geology of the Area .....	12
2.1.11	Redevelopment History and Controls .....	13
3.	Strategy Aims and Objectives.....	15
3.1	Objectives of the Strategy .....	15
3.2	Milestones.....	16
4.	Priority Actions and Timescales.....	17
4.1	Priorities.....	17
4.2	Timescales.....	17
5.	Policies and Procedures.....	18
5.1	Internal Management Arrangements for the Inspection and Identification .....	18
5.1.1	Orphan sites.....	18
5.1.2	Urgent Sites .....	19
5.1.3	Pollution Incidents .....	19
5.1.4	Hardship .....	19
5.1.5	Voluntary Remediation .....	19
5.1.6	Special Sites .....	20
5.1.7	Harm to Receptors .....	20
5.1.7.1	Human Health .....	20
5.1.7.2	Controlled Waters.....	20
5.1.7.3	Ecological Receptors.....	20

5.1.7.4	Property (Animals, Crops etc.).....	21
5.1.7.5	Property (Buildings).....	21
5.2	Local Authority interests in land .....	21
5.3	Information Collection .....	21
5.3.1	Future Site Identification.....	21
5.4	Information and Complaints .....	22
5.5	Information Evaluation .....	22
5.5.1	Site Prioritisation .....	22
5.5.2	Site Assessments.....	22
5.5.2.1	Human Health .....	23
5.5.2.2	Controlled Waters.....	23
5.5.2.3	Ecological Receptors.....	23
5.5.2.4	Property (Crops, Animals) .....	24
5.5.2.5	Property (Buildings).....	24
6.	General Liaison and Communication Procedures.....	25
6.1	General Liaison and Communication Strategies.....	25
6.1.1	Information and Complaints .....	25
6.1.2	Internal Management Arrangements for Inspection and Identification .....	25
6.1.3	Land Searches.....	25
6.1.4	Environmental Searches .....	26
6.1.5	Communication Strategy .....	26
6.1.6	Statutory Consultees.....	26
6.1.7	Transboundary Liaison between Authorities.....	26
6.1.8	Owners, Occupiers and Other Interested Parties .....	27
6.1.9	The Wider Community .....	27
7.	Programme for Inspection .....	28
7.1	Prioritisation of Sites .....	28
7.2	Council priorities for dealing with Contaminated Land:.....	28
7.3	Timetable for site assessment.....	28
7.4	Arrangements for carrying out detailed inspections.....	28
7.4.1	Stage 1 - Pre Inspection / Desk Study.....	29
7.4.2	Stage 2 – Site Visit and Visual Inspection. ....	29
7.4.3	Stage 3 – Intrusive Investigations.....	30
7.4.4	Final Categorisation of Sites .....	31
7.4.5	Designation of Special Sites.....	31
8.	Review Mechanisms .....	32
8.1	Triggers for undertaking inspection .....	32
8.2	Triggers for reviewing inspection decisions .....	32
8.3	Reviewing the strategy.....	33
9.	Information Management.....	34
9.1	Public Register.....	35
Appendices	.....	36
Appendix 1	Statutory Guidance Tables 1 and 2 .....	36
Appendix 2	RDC Land and Property Ownership .....	38
Appendix 3	RDC Protected Locations .....	46
Appendix 4	RDC Private Water Supply Information.....	49
Appendix 5	RDC Owned Land Intersecting with Landmark Data.....	51
Appendix 6	Prioritisation method.....	54

# TABLES

Table 2.1: Major developments in the RDC area .....	13
Table 3.1: Summary of annual site investigation work .....	16

# 1. INTRODUCTION

Richmondshire District Council (RDC) published a Contaminated Land Strategy in June 2001 as a statutory requirement of Part 2A of the Environmental Protection Act 1990. The strategy was written during the infancy of the Part 2A regime, and although it met the requirements of previous statutory guidance, it did not contain all of the recommended or optional elements of a strategy as suggested in the DETR Inspection Strategies Advice Note issued in May 2001.

Following the release, in April 2012, of new Statutory Guidance detailing how local authorities should deal with contaminated land, the Council decided to review its strategy.

## 1.1 General Policies of the Local Authority

The Council's vision is for Richmondshire to be a place where people will want to live, work and visit; where people enjoy a high quality of life and environment, feel safe, healthy and prosperous and have the opportunity to reach their full potential.

The Corporate Plan 2008-12 sets out the Council's vision, ambitions and the outcomes it wants to achieve over this period.

The Plan is organised around the five themes of the Richmondshire 2021 Sustainable Community Strategy which are:

- Safe Places
- Strong Neighbourhoods
- Healthy Lives
- Prosperous Communities
- Green Living

Both authorities have similar priority themes and these are built into the Environmental Health Service's service plan in order to create specific targets relating to individual subject areas.

## 1.2 Regulatory Context

### 1.2.1 Legislation

Section 57 of the Environment Act 1995 inserted Part 2A into the Environmental Protection Act 1990, and created a new regulatory regime for the identification and remediation of contaminated land. The Contaminated Land (England) Regulations 2000, which came into force on 1<sup>st</sup> April 2000, enacted the Part 2A regime. The 2000 Regulations were replaced by the Contaminated Land (England) Regulations 2006 (S.I. 2006/1380).

In April 2012 the Government issued new Statutory Guidance, replacing Defra Circular 01/2006 Environmental Protection Act 1990: Part 2A Contaminated Land. The statutory guidance requires local authorities to take a strategic approach to the identification of land

which may be contaminated and to produce a strategy for dealing with contaminated land in their area.

The guidance also introduced Categories of Harm in relation to human health (and controlled waters) in deciding whether or not land is contaminated on grounds of significant possibility of significant harm (or significant pollution of controlled waters). These categories are explained further in section 1.2.5.

## 1.2.2 Radioactive Contamination

Radioactive contamination is dealt with separately to non-radioactive contamination and in April 2012 new statutory guidance was issued by the Secretary of State for Energy and Climate Change in accordance with section 78YA of the Environmental Protection Act 1990 ("the 1990 Act") as it applies to harm attributable to radioactivity.

Section 78YC of Part 2A EPA 1990 gives powers to the Secretary of State to make regulations applying the Part 2A regime, with any necessary modifications, for the purpose of dealing with harm attributable to radioactivity. These powers have been exercised in the Radioactive Contaminated Land (Enabling Powers) (England) Regulations 2005 and the Radioactive Contaminated Land (Modification of Enactments) (England) Regulations 2006 to establish a legal framework for dealing with radioactive contaminated land in England.

The radioactive contaminated land regime only covers contamination which has resulted from the after-effects of a radiological emergency or a past practice or past work activity.

It does not apply to current practices and natural background radiation. In addition, the regime and therefore this Guidance does not apply in relation to land within a nuclear site or an MOD nuclear site or where remediation is to be undertaken by a local authority in implementation of an emergency plan under regulation 13(2) of the Radiation (Emergency Preparedness and Public Information) Regulations 2001.

Part 2A requires that local authorities cause their areas to be inspected with a view to identifying radioactive contaminated land, and to do this in accordance with the statutory guidance.

The trigger for a local authority to cause land to be inspected is where it considers that there are *reasonable grounds* for believing that land may be radioactive contaminated land. RDC will have reasonable grounds if we have knowledge of relevant information relating 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 set out in the statutory guidance; or
- b. levels of contamination present on the land arising from a past practice, past work activity or radiological emergency, capable of causing lasting exposure giving rise to the radiation doses set out in the statutory guidance.

If RDC consider that there are reasonable grounds for believing land may be radioactive contaminated land we will inspect the land to obtain sufficient information to decide whether it is radioactive contaminated land.

If land is radioactive contaminated land it will fall within the definition of a special site prescribed in regulation 2 of the Contaminated Land (England) Regulations 2006 and the Environment Agency will be the enforcing authority in respect of that land.

### **1.2.3 Regulatory Role of Enforcing Authorities**

The enforcing authorities under Part 2A are the local authorities (RDC) and the Environment Agency (EA). The roles of a local authority under Part 2A are:

1. to cause their areas to be inspected to identify contaminated land;
2. to determine whether any particular site is contaminated land;
3. to act as enforcing authority for all contaminated land which is not designated as a “special site”.

The EA has four principal roles with respect to contaminated land under Part 2A. It will:

1. assist RDC in identifying contaminated land, particularly in cases where water pollution is involved;
2. provide site specific guidance to RDC on contaminated land;
3. act as the “enforcing authority” for any land designated as a “special site”; and
4. publish periodic reports on contaminated land

The Council and the EA have four main tasks:

1. to establish who should bear responsibility for the remediation of the land;
2. to decide, after consultation, what remediation is required in any individual case and to ensure that such remediation takes place, either through agreement with the appropriate person, or by serving a remediation notice on the appropriate person if agreement is not possible or, in certain circumstances, through carrying out the work themselves;
3. 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
4. to record certain prescribed information about their regulatory actions on a public register

### **1.2.4 Definition of Contaminated Land under Part 2A**

Section 78A(2) defines contaminated land for the purposes of Part 2A as “any land which appears to the local authority in whose area it is situated to be in such a condition, by reason of substances in, on or under the land, that –

- (i) significant harm is being caused or there is a significant possibility of such harm being caused;
- (ii) significant pollution of controlled waters is being caused, or there is a significant possibility of such pollution being caused.

Radioactively contaminated land is defined as “any land which appears to the local authority in whose area it is situated to be in such a condition, by reason of substances in, on or under the land, that –

- (i) harm is being caused, or
- (ii) there is a significant possibility of such harm being caused.”

## 1.2.5 Categories of Harm

### 1.2.5.1 Human Health

In deciding whether or not land is contaminated land on the grounds of significant possibility of significant harm to human health the following categories 1 to 4 are used, in accordance with the Statutory Guidance:

**Category 1** Where the Council considers there is an unacceptably high probability, supported by robust science-based evidence, that significant harm would occur if no action is taken to stop it.

Land will be deemed to be a Category 1: Human Health case where:

1. the Council is aware of similar land or situations that are known, or strongly suspected, to have caused such harm;
2. the Council is aware that similar degrees of exposure to the contaminant(s) in question are known, or strongly suspected, to have caused such harm before; and
3. the Council considers that significant harm may already have been caused by contaminants and that there is an unacceptable risk that it might continue to occur again if no action is taken.

**Category 2** Where the Council concludes, on the basis that there is a strong case for considering that the risks from the land are of sufficient concern, that the land poses a significant possibility of significant harm.

Land will be deemed to be a Category 2: Human Health case where there is little or no direct evidence that similar land, situations or levels of exposure have caused harm before, but nonetheless the Council considers on the basis of the available evidence that there is a strong case for taking action under Part 2A on a precautionary basis.

**Category 3** Where the Council concludes that a strong case described in Category 2 above does not exist, and therefore the legal test for significant possibility of significant harm is not met.

Category 3: Human Health cases may include land where the risks are low, but nonetheless the Council considers that regulatory intervention under Part 2A is not warranted.

Placing land in Category 3 does not prevent others, such as a land owner or occupier of the land, from taking action to reduce risks outside of the Part 2A regime if they choose. In these circumstances, the Council will consider making available the results of our inspections and risk assessments to the owners or occupiers of Category 3 land to facilitate remediation action outside of the Part 2A regime.

In making the decision on whether land falls into a Category 2 or Category 3 case, the Council will first consider the assessment of the possibility of significant harm to human health, including an estimated likelihood of such harm, the estimated impact if harm did



occur, the timescale over which it might occur, and the levels of certainty attached to these estimates.

If the Council cannot decide whether to make a decision on the above basis then the Council will then consider other factors, including:

- i) the likely direct and indirect health benefits and impacts of regulatory intervention, including the benefits of reducing or removing the risk posed by contamination, the risks from contaminants being mobilised during remediation, and any indirect impacts such as stress-related health effects that may be experienced by affected people, particularly local residents;
- ii) the initial estimate of what remediation would involve, how long it would take, what benefits it would bring, whether the benefits outweigh the financial and economic costs, and any impacts on local society or the environment from taking action that the authority considers to be relevant.

If it is not clear to the Council that the health benefits of remediation would outweigh the health impacts then Council will presume the land falls into Category 3 unless there is a strong reason to consider otherwise.

If, having taken the above factors into account, the Council still cannot decide whether or not a significant possibility of significant harm exists, then the Council will conclude that the legal test has not been met and the land will be placed into Category 3.

<p><b>Category 4</b> Where the Council considers that there is no risk, or that the level of risk is low, of a significant possibility of significant harm.</p>
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Land will be deemed to be a Category 4: Human Health case where:

1. no relevant contaminant linkage has been established;
2. where there are only normal levels of contaminants in soil;
3. contaminant levels do not exceed relevant generic assessment criteria;
4. estimated levels of exposure to contaminants in soil are likely to form only a small proportion of what a receptor might be exposed to anyway through other sources of environmental exposure.

#### *1.2.5.2 Non-Human (Ecological and Property) Receptors*

The Council will have regard to the receptors described in Tables 1 and 2 of the Statutory Guidance as being relevant to Part 2A (see Appendix 1).

#### *1.2.5.3 Controlled Waters*

In establishing whether significant pollution of controlled waters is being caused, or whether there is a significant possibility of such pollution being caused, the Council will have regard to any technical guidance issued by the Environment Agency and will consult the Agency and have strong regard to its advice in cases where it is likely that land might be contaminated land.

In accordance with the Statutory Guidance the Council will consider the following types of pollution to constitute significant pollution of controlled waters:

1. Pollution equivalent to 'environmental damage' to surface water or groundwater as defined by The Environmental Damage (Prevention and Remediation) Regulations 2009, but which cannot be dealt with under those Regulations;
2. Inputs resulting in deterioration of the quality of water abstracted, or intended to be used in the future, for human consumption such that additional treatment would be required to enable that use;
3. A breach of a statutory surface water Environment Quality Standard, either directly or via a groundwater pathway.
4. Input of a substance into groundwater resulting in a significant and sustained upward trend in concentration of contaminants, as defined in Article 2(3) of the Groundwater Daughter Directive (2006/118/EC).

The Council may also consider that significant concentrations of hazardous substances or non-hazardous pollutants in groundwater, or significant concentrations of priority hazardous substances, priority substances or other specific polluting substances in surface water constitutes significant pollution. Consultation with the Environment Agency will be required in these circumstances.

The Council will not consider the following types of circumstances to be contaminated land on the grounds of water pollution:

- i) If substances are merely entering water and none of the conditions for considering that significant pollution is being caused, as outlined above, are being met;
- ii) If land is causing a discharge that is not discernible at a location immediately downstream or down-gradient of the land;
- iii) Substances entering water in compliance with a discharge authorised under the Environmental Permitting Regulations.

In deciding whether or not land is contaminated land on the grounds of significant possibility of significant pollution of controlled waters the following categories 1 to 4 are used, in accordance with the Statutory Guidance:

Categories 1 and 2 will comprise cases where the Council considers that a significant possibility of significant pollution of controlled waters exists. Category 3 and 4 will comprise cases where the Council considers that a significant possibility of such pollution does not exist.

**Category 1 (Water)** – Where the Council considers that there is a strong and compelling case for considering that a significant possibility of significant pollution of controlled waters exists.

This will include cases where there is robust science-based evidence for considering that it is likely that high impact pollution would occur if nothing were done to stop it.

**Category 2 (Water)** – Where the Council considers the strength of evidence to put the land into Category 1 does not exist but, nonetheless, on the basis of the available scientific evidence and expert opinion, the risks posed by the land are of sufficient concern that the land should be considered to pose a significant possibility of significant pollution of controlled waters on a precautionary basis.

This will include land where there is a relatively low likelihood that the most serious types of significant pollution might occur.

**Category 3 (Water)** – Where the Council concludes that the risks are such that the tests set out in Categories 1 and 2 above are not met, and therefore regulatory intervention under Part 2A is not warranted.

This will include land that the Council considers is very unlikely that serious pollution would occur, or where there is a low likelihood that less serious types of significant pollution might occur.

**Category 4 (Water)** – Where the Council concludes that there is no risk, or that the level of risk posed is low.

This will include land where:

- i) no contaminant linkage has been established in which controlled waters are the receptor in the linkage; or
- ii) the possibility only relates to types of pollution that are not considered to be significant pollution (described above); or
- iii) the possibility of water pollution similar to that which might be caused by background contamination.

### 1.2.6 Principles of Risk Assessment

The definition of contaminated land is based upon the principles of risk assessment. Risk is defined in the statutory guidance as the combination of:

- a. The likelihood that harm, or pollution of water, will occur as a result of contaminants in, on or under the land; and
- b. The scale and seriousness of such harm or pollution if it did occur

The Council will base any risk assessment on information which is:

- a. Scientifically based;
- b. Authoritative
- c. Relevant to other assessment of risks arising from the presence of contaminants in soil; and
- d. Appropriate to inform regulatory decisions in accordance with Part 2A and the statutory guidance.

### 1.2.7 Contaminant Linkages

A “contaminant linkage” means the relationship between a contaminant, a pathway and a receptor.

For a relevant risk to exist there must be one or more contaminant-pathway-receptor linkages by which a receptor might be affected by contamination.

A contaminant linkage requires each of the following to be identified:

- a) a **contaminant**;
- b) a **receptor**; and
- c) a **pathway capable** of exposing a receptor to the contaminant.

A **contaminant** is a substance which is in, on or under the land and which has the potential to cause significant harm or to cause significant pollution of controlled waters.

A **receptor** is something that could be adversely affected by a contaminant such as a person, an organism, an ecosystem, property or controlled waters.

A **pathway** is a route by which a receptor is or might be affected by a contaminant.

All three elements of a contaminant linkage must exist before the land can be considered potentially contaminated land under Part 2A.

For the purposes of Part 2A, a “significant contaminant linkage” means a contaminant linkage which gives rise to a level of risk sufficiently to justify a piece of land being determined as contaminated land.

### 1.2.8 Requirement for a Strategic Approach

The statutory guidance requires RDC to take a strategic approach to carrying out inspections under section 78B(1). The approach is intended to be rational, ordered and efficient and it will reflect local circumstances. The Council will also seek to ensure that the most pressing and serious problems are located first and that resources are concentrated on investigating in areas where contaminated land is most likely to be identified.

## 2. CHARACTERISTICS OF THE COUNCIL AREA

### 2.1 Richmondshire District Council Area

Richmondshire is one of the largest local authorities by land area in England and is predominantly rural in nature. There are several thriving market towns which form the main centres of population. The topography is varied but includes large areas of moorland, particularly in the central and western areas, which forms part of the Yorkshire Dales National Park. There are two main river valleys in the district, both running in an easterly direction; Swaledale with the River Swale and Wensleydale with the River Ure. The district is also home to Catterick Garrison, one of the largest military bases in Europe.

#### 2.1.1 Geographical Size and Location

Richmondshire is located in the county of North Yorkshire and covers an area of 1300 square kilometres (500 square miles). The western edges border Cumbria and to the north Teesdale and Darlington. The eastern border meets Hambleton District and the Swale catchment area and the southern borders meet Harrogate Borough and Craven District Councils. Large areas of the eastern edge of the Yorkshire Dales are owned by the Ministry of Defence (MoD) for military training purposes.

#### 2.1.2 Population Distribution

Richmondshire district is largely rural in character, with approximately 48,000 inhabitants. Most of these are located in the small towns of Richmond, Leyburn and Hawes but also at Catterick Garrison. The remaining population reside in or near to villages and hamlets or in remote farms and cottages scattered across the district.

#### 2.1.3 Council Owned Land and Property

The 2000 rating register identifies 20,436 domestic and 2,134 non-domestic properties with 1,959 of these properties being owned by Richmondshire District Council.

The Council also owns industrial estates, workshop units, areas of recreational land which are leased to the local Town or Parish Council, car parks and buildings related to tourism and leisure, e.g. leisure centres, swimming pools and tourist information centres. A full list of land and property ownership is included in Appendix 2.

#### 2.1.4 Current Land Use

Richmondshire is largely rural and therefore one of the main land uses is agriculture. The upland areas are dominated by sheep farming whereas the lower lying area, where the land is more fertile, is mixed agricultural use with dairy herds, pig farming and crops.

The strong military presence in Richmondshire is centred around Catterick Garrison. The Ministry of Defence (MoD) owns large areas of land that is used for military training purposes, especially on upland areas to the west of Catterick and Richmond.

Other industries and commercial activities are similar to those in Hambleton and include public administration, education and health, manufacturing, construction, finance and IT, hotels, restaurants and tourism.

### **2.1.5 Protected Locations**

The western half of the district falls within the Yorkshire Dales National Park. Just over 30,000 hectares within the district have been designated sites of Special Scientific Interest (SSSI), mostly for the plant and bird life habitats.

The North Pennine Dales Meadows (which includes the Gingerfields SSSI) is a Special Area of Conservation (SAC).

The North Pennine Moors is a Special Protection Area (SPA) and includes the Lovely Seat-Stainton Moor SSSI and East Nidderdale Moors SSSI which support internationally important populations of breeding birds such as Merlin and Golden Plover.

The Local Plan outlines all of these sites and other areas of interest within the district where they do not fall within the National Park. A full list of protected locations is shown in Appendix 3.

### **2.1.6 Key Property Types**

Richmondshire has a rich historical heritage with nationally important examples being Richmond Castle and Richmond Georgian Theatre. The market towns and villages are generally of high environmental quality and this characteristic contributes to the culture and identity of Richmondshire.

There are 1296 listed buildings (Grade I – 38, Grade II\* - 49, Grade II – 1209), 41 designated conservation areas, 6 historic parks and gardens and 102 Scheduled Monuments.

If intrusive investigations and/or remediation are necessary then all reasonable precautions must be taken to avoid harm or damage to any features of historical or archaeological interest.

### **2.1.7 Water Resources**

Ground water vulnerability maps for the RDC area identify two areas of highly permeable major aquifers, with mostly low permeability drift deposits occurring at the surface. Vulnerability depends upon the natural characteristics of a site and is assessed on the physical, chemical and biological properties of the soil and rocks beneath the site which determine the ease with which an unprotected hazard can affect ground water.

A small area on the eastern edge of the district is classed as non-aquifer and the rest of the district falls into the variable permeability minor aquifer category.

Data provided by the EA also identifies three source protection locations and associated protection zones at Langthwaite adit, Fossdale and Catterick Bridge. There is a further source protection zone at Piercebridge/Cliffe.

There are also approximately 450 Private Water Supplies (PWS) throughout the district, varying from single property supplies to village supplies covering up to 200 properties. The 450 PWS have been cross-referenced with potential areas of contamination identified from Landmark records. There are 56 PWS that are within 100m of Landmark historical land uses. Further details on private water supplies are shown in Appendix 4.

### **2.1.8 Known Information on Contamination**

Very little information exists with respect to contaminated land, although it is known that site investigations, undertaken by external consultants, have been carried out at a number of sites including though not limited to; the Old Richmond Gasworks adjacent to The Fosse Park; Council owned open space at Pikepurse Lane, the old Colburn Barracks and at Pallett Hill Quarry, where contaminants have been identified and remediation carried out.

Landfill sites currently operating are licensed and regulated by the Environment Agency in accordance with the Environmental Permitting Regulations 2010. Old or closed landfill sites are the responsibility of North Yorkshire County Council (NYCC). Gas monitoring of closed landfill sites was carried out during 1996/97, which indicated that all sites, with the exception of Middleham, were inactive.

The British Geological Survey has indicated that information on baseline geochemical data of old metalliferous mines is available. It is understood that this data is based on the analysis of stream sediments which will assist with assessments of the distribution of heavy metals within the mining areas.

### **2.1.9 Current and Past Industrial History**

Heavy industry within Richmondshire is limited to quarrying activities, including associated drying and blending processes. These sites are generally located away from residential areas.

Small industrial estates exist on the outskirts of Richmond, Leyburn, Hawes, Colburn and Brompton-on-Swale. The Richmondshire Local Plan allows for the development of a total of 25.1 hectares of land which is likely to be mainly industrial in nature. The areas allocated, however, are chiefly adjacent to existing industrial estates.

Agriculture continues to be a significant industry within Richmondshire, inclusive of both arable and non-arable farming activities.

Mining and Agriculture were the two main activities of the district until the last mines were closed around the beginning of the 20<sup>th</sup> Century.

Large areas of Wensleydale and Swaledale have been worked for various minerals, including lead (galena), barytes and fluorspar, although the barytes was of generally poor quality. The mineral deposits in this area are controlled by the geology, being restricted to certain strata of limestone and sandstone, in particular the Main and Underset Limestones

and their associated cherts. The most productive ore bodies were close to the surface, the depth being limited by the extent of the strata.

From at least the medieval period onwards, the veins were worked from shafts and even in the late 17th century miners at Lownathwaite were having problems because earlier miners had reached depths of 75 metres. Shafts at the Old Gang Mine had reached depths of 90 meters by the late 18th century. By 1840, most of the deposits within 80m of the surface had been removed by 'stopping'.

Deeper mining was used in localised veins such as Lownathwaite and the Old Gang Mines. As the veins are often near, or intersected by, valleys, it was easier to develop them from horizontal tunnels, locally called horse levels, which served as haulage routes and drains for water. The levels were driven through from lower in the valley sides until they cross-cut the generally E-W or S-E trending veins. In its heyday, Old Gang produced around 3300 tons of ore per year. A few such levels were driven in the early 18th century, but most date from the period 1780 to 1850.

The deeper, thinner beds of limestone were tried by Sir Francis and Smelt Mill Levels in the 1860's and 1870's without success. Workings to the South of the River Swale were more scattered although worked with equal intensity.

Coal mining using 'Bell Pits' was most prevalent in the upper dales area. What are described as 'Bell Pits' are often associated with complex workings using 'Pillar and Stall' methods of mining. Preston Moor, for example, was worked using both methods from medieval times until around 1909. They represent a long-lived and very important and little understood local industry.

Limestone quarrying also played a significant part in shaping the landscape of the district. Other forms of mining that occurred within the district were chert mining, which lasted from 1905 to 1950 and stone mining.

Copper mining in the area may have begun in medieval times at places such as Feldom and Gingerfield. A revival took place in Middleton Tyas (NZ 2305) where bell pits were dug around the church between 1735 and 1780. Merrybent (NZ2305) in the late 1800's used a new 'Shafts and Levels' method (lead was also worked at Merrybent). The Billy Bank copper vein (NZ 165006) was worked in the early 1900's and was entered by two adits above the River Swale.

### **2.1.10 Geology of the Area**

The dales are cut down through the Millstone Grit to the Carboniferous limestone and are crossed by a large number of mineral veins. East of Richmond the ground is mostly covered by glacial drift and river deposits which obscure the outcrops for Permian rocks which overlie the Carboniferous rocks to the east.

The Major Aquifers in the Richmondshire Area are the Permian Magnesian Limestone and the Triassic Sherwood Sandstone. In general these are overlain by low permeability drift deposits but there are some areas of bedrock outcrop identified on the BGS Geological Map of the Area (Sheet 41, 1:50,000). In these areas in particular, aquifers would be highly vulnerable to pollution.



The geology of the majority of the Richmondshire district is Millstone Grit and Carboniferous Limestone, which are designated as Minor Aquifers. There are significant areas of these strata that are not covered by protecting layers of Drift deposits. These areas are also vulnerable to possible pollution and are identified on the Groundwater Vulnerability Maps as Minor Aquifer with overlying soils with high and intermediate leaching potential.

The area on the eastern edge of Richmondshire is identified as a Non-Aquifer because it is considered that there is 5m or more of clay in the drift deposits overlying the Major Aquifers beneath.

The 'Askrigg Block' is underlain by an intrusion of Wensleydale Granite through the Lower Carboniferous (Yoredale limestone series) rock such that the depth of Lower Carboniferous is only around 500m as compared with the Stainmore trough where it is around 3km thick. The Upper Carboniferous is made up of Main Limestone overlain by beds of Little Limestone and Richmond Cherts with varying quantities of mudstones and sandstones between the strata.

To the north of Hawes there is a conspicuous pattern of faulting. A number of dislocations run approximately east-west including the major Stockdale Fault through Muker and Gunnerside and a fault complex further north which runs through Keld and Langthwaite. Many of the faults and fractures have been pathways for mineralising fluids mostly in the limestones up to the Crow Limestone and the Richmond Cherts in the Swaledale 'Mineral Belt'.

Permian outcrops lie in a narrow band in the Vale of York east of Richmond, the bands being successively younger eastwards. In the small area of the district between Scorton and North Cowton, the Triassic Sherwood Sandstone Group overlies the Permian deposits.

### 2.1.11 Redevelopment History and Controls

Redevelopment has not occurred on a large scale due to the rural nature of the district. Industrial sites have tended to expand slowly on the edges of the main settlements and at the current time there are no plans to change the nature of these sites. These sites consist mostly of small factories and business units. Table 2.1 shows the largest developments in the RDC area in recent years.

*Table 2.1: Major developments in the RDC area*

Development	Location	Date Planning Permission Granted	Status
Residential development	Phase 1, Former Colburn Pipeworks, Catterick Road, Colburn	August 2010 and July 2012	Development in progress
Residential development (24 apartments)	Former Arriva Bus Depot, St. Martins, Richmond	March 2012	Commencement imminent
Veterans supported accommodation unit and 12 family houses	Hipswell Road West, Catterick Garrison	October 2009	Completed
Sheltered housing development (39 units)	Lile Close, Richmond	November 2009	Completed
Residential development (31 dwellings)	Bishops Way, Catterick Village	February 2010	Completed

Residential development (22 dwellings)	Former Highways Depot, Green Howards Road, Richmond	January 2011	Nearing completion
Conversion to office accommodation	Former Lower School, Station Road, Richmond	August 2012	Development in progress
Redevelopment of industrial site for new employment/commercial development	Gatherley Road, Brompton on Swale	April 2012	Development in progress
Extension to retail foodstore	Tesco, Catterick Garrison	December 2009	Completed
Extension to salerooms	Tennants Auction Centre, Harmby Road, Leyburn	May 2012	Commencement imminent
Erection of 4 SLAM blocks (80 bedspaces) and mess facility	Gaza Barracks, Catterick Garrison	June 2008	Completed
Erection of 3 SLAM blocks (66 bedspaces)	Gaza Barracks, Catterick Garrison	June 2008	Completed
Erection of 2 SLAM blocks (384 bedspaces)	Vimy Barracks, Catterick Garrison	January 2009	Completed
Erection of 2 SLAM blocks (96 bedspaces)	Richmondshire Lines, Catterick Garrison	October 2009	Completed
Erection of 1 SLAM block (81 bedspaces) and mess facility	Vimy Barracks, Catterick Garrison	December 2009	Completed
Erection of 2 SLAM blocks (384 bedspaces)	Vimy Barracks, Catterick Garrison	December 2009	Completed
Erection of 1 SLAM block (394 bedspaces)	Gaza Barracks, Catterick Garrison	April 2010	Completed
Free range poultry unit (16,000 birds)	High Grange Farm, Forcett Lane, Gilling West	May 2010	Completed
Erection of mess building	Gaza Barracks, Catterick Garrison	October 2010	Completed
Construction of new service reservoir	Green Howards Road, Richmond	January 2012	Nearing completion
Free range cattle buildings and rotary milking parlour	Washfold Farm, Moor Road, Leyburn	July 2011	Completed
Erection of personnel recovery and assessment centre (50 bedspaces)	Gaza Barracks, Catterick Garrison	September 2011	Nearing completion
Construction of small arms firing range	Bellerby Ranges, Moor Road, Leyburn	January 2012	Nearing completion
Erection of replacement poultry building	Park View Farm, Forcett	June 2012	Not known at present
Erection of specialist autism centre	Catterick Road, Colburn	September 2012	Commencement imminent
Erection of 2 SLAM blocks	Vimy Barracks, Catterick Garrison	October 2012	Commencement imminent

## 3. STRATEGY AIMS AND OBJECTIVES

The aims of this strategy are:

1. To comply with legislation relevant to contaminated land;
2. To ensure a strategic approach is used for dealing with contaminated land;
3. To ensure that the RDC strategic inspection priorities are taken into account (see below);
4. To ensure that the remediation of contaminated land is appropriate, practicable, durable and effective;
5. To ensure, wherever possible, that the polluter pays for the cost of remediation;

### 3.1 Objectives of the Strategy

The objectives that will help RDC achieve the aims of the strategy are:

#### **Objective 1 (Aim 1 – To comply with legislation relevant to contaminated land)**

- To implement the primary legislation Part 2A Environmental Protection Act 1990;
- To use the Contaminated Land Regulations to deal with special sites, remediation notices, rights of entry compensation, appeals procedures, content of public registers;
- To follow the statutory guidance in relation to the definition, identification and remediation of contaminated land, all matters relating to liability for remediation, and recovery of costs of remediation and relief from hardship.

#### **Objective 2 (Aim 2 – To ensure a strategic approach is used for dealing with contaminated land)**

- To identify land which merits detailed inspection in a rational, ordered and efficient manner;
- To identify the most pressing and serious problems first;
- To concentrate resources on areas where contaminated land is most likely to be found.

#### **Objective 3 (Aim 3 – To ensure that the strategic inspection priorities are taken into account)**

- To consider RDC strategic priorities when dealing with contaminated land, namely:

Priority 1:	To protect human health
Priority 2:	To protect controlled waters
Priority 3:	To protect designated ecosystems
Priority 4:	To protect crops and animals
Priority 5:	To prevent damage to buildings and monuments

#### **Objective 4 (Aim 4 – To ensure that the remediation of contaminated land is appropriate, practicable, durable and effective)**

- To assess land contamination against current UK standards and to use information that is scientifically based, authoritative, relevant and appropriate.
- To consider the costs involved and the seriousness of harm or pollution of controlled waters;

- To ensure that the best practicable techniques are used for the remediation;
- To consider the technical, site, time and regulatory constraints of remediation.

**Objective 5 (Aim 5 – To ensure, wherever possible, that the polluter pays for the cost of remediation)**

- To identify and attribute responsibility to the appropriate liability group and responsible persons;
- To seek to recover the costs of remediation from the responsible persons.

### 3.2 Milestones

The original contaminated land strategy included a number of specific targets in relation to the development and implementation of the strategy and for review purposes. These can be summarised as follows:

*Table 3.1: Summary of annual site investigation work*

Action	Date(s)	Progress
Entry on GIS and CLARE systems of all remaining existing data regarding potentially contaminated sites	March 2005	Partially Achieved
Preliminary risk assessment and initial site prioritisation	Dec 2005	Started
Site walkover inspections	Dec 2006	Started
Re-appraisal and scoping of detailed investigations	April 2007	To be done
Completion of site investigations and risk assessment on Priority 1 and 2 sites	As required and as budget allows with current aim for End 2010	To be done
Monitoring progress of strategy and review of achievement of milestones	Annual	To be done

There have been several barriers to progression with these original actions, primarily due to a reduction in staffing levels, competing service priorities and lack of budgetary resources.

RDC carried out approximately 120 desk studies and site walkovers during 2006 and 2007. Since then no further work was carried out until 2010.

The 2011/2012 target for RDC was 25 inspections. In the RDC area 14 inspections were carried out.

The current aim for future years is to continue with the 25 inspections per year in order to help achieve the overall aims and objectives of the strategy.

## 4. PRIORITY ACTIONS AND TIMESCALES

### 4.1 Priorities

The current priorities for RDC are:

- Prioritise RDC sites to obtain list for inspections based on highest risk first.
- Cross reference private water supplies registered with the local authority with sites of known historical land use (Landmark data).
- Continue inspecting highest risk sites in RDC in accordance with prioritised list.

### 4.2 Timescales

The timescales for completing the prioritised activities identified above are as follows:

- Prioritisation of RDC sites – The original target for completing this task was the end of March 2013. This was based on the assumption that the historical land use data was similar in number to the historical land use data for the Hambleton District Council area given the similar land area of each district. However, the number of historical land uses in the Richmondshire area has been recorded at over 8000 so therefore an additional six months will be required to complete the prioritisation. Therefore, the revised target is now the end of September 2013.
- Cross reference private water supplies and historical land use data – by end March 2013.
- Inspection of sites – 25 each year for RDC.

## 5. POLICIES AND PROCEDURES

There are many different aspects to the contaminated land regime and therefore it is important for RDC to set down certain policies on how they will deal with these numerous and often technically complex matters. The Council must first and foremost take into account the legislation and statutory guidance issued by the Secretary of State when dealing with contaminated land.

However, because the guidance applies across the whole of England the guidance it provides is only general guidance. In these circumstances, the Council must consider its own position and devise policies that are specific to the area.

The following policies and procedures are not intended to replace the statutory guidance or to allow the authority to deviate from what is specified in the regulations, but to provide a clear basis on which decisions can be reached when dealing with matters relating to contaminated land. These matters can often be complex, contentious and politically sensitive and therefore clarity, unambiguity and transparency are essential.

### 5.1 Internal Management Arrangements for the Inspection and Identification

#### 5.1.1 Orphan sites

The term 'orphan site' is taken from the statutory guidance and means any site where a significant contaminant linkage has been identified but where there are no members of a liability group to pay for the cost of remediation. In cases such as this the cost of remediation falls to the local authority.

In accordance with the aims and objectives of this strategy, RDC will ensure the polluter pays for any remediation, wherever possible. However, it is possible that all members of a liability group may be excluded from liability under one of the 'exclusion tests' specified in the statutory guidance. If this happens then the Council may be liable for the costs of remediation.

The cost of remediation of contaminated land varies widely from a few hundred pounds for cases where there is a small volume of material to hundreds of thousands of pounds for large scale remediation. Because of this variance in cost it is not feasible for the Council to set aside a pool of money on the off-chance that a site may become an orphan site. It is not possible to predict when an orphan site may arise or the potential remediation costs required.

Therefore, it is proposed to apply for funding directly from central government when an orphan site arises, rather than making budgetary provision on an annual basis. Applications will be made to the Contaminated Land Capital Projects Programme once the costs of a remediation scheme are known.

### **5.1.2 Urgent Sites**

The risks from contaminated land are generally taken to pose a threat to human health or the wider environment over a long period of time i.e. chronic health risks. However, there are occasions that require urgent action in order to prevent or minimise harm to one or more sensitive receptors.

If a site poses an unacceptable risk in that there is harm being caused to human health or significant pollution of controlled waters is being caused then the Council will need to investigate immediately rather than following the prioritised inspection list.

RDC will seek the advice of the Health Protection Agency in relation to matters concerning human health, and the Environment Agency in matters relating to controlled waters, before carrying out any remediation.

### **5.1.3 Pollution Incidents**

If the Council is made aware of a pollution incident in relation to controlled waters then the matter will always, in the first instance, be referred to the Environment Agency (EA).

If, after carrying out an investigation, the EA consider the matter falls outside of their remit but within that of the local authority, the Council will take responsibility for the site. The Council will carry out a preliminary risk assessment in order to prioritise the site. The placing in the prioritised list will determine the urgency and therefore the timing of any subsequent inspection under Part 2A.

If the Council is made aware of a pollution incident on land then an initial assessment of available information will be carried out to establish if the matter is one intended to be dealt with by the Environmental Damage Regulations 2009 (EDR).

If the EDR apply then the Council will investigate the matter accordingly and pursue the polluter to ensure that effective remediation is carried out.

If the EDR do not apply then the Council will carry out a preliminary risk assessment in order to prioritise the site. The placing in the prioritised list will determine the urgency and therefore the timing of any subsequent inspection under Part 2A.

### **5.1.4 Hardship**

The Council has no policy specific to financial hardship. In cases when the appropriate person is a Class A person and the owner of the contaminated land then the Council will apply a land charge on the property to which the contaminated land applies. The costs of remediation will then be recovered from the Class A person when the property is sold.

Recovery of costs from Class B persons will be in accordance with the standard debt recovery policies of the Council and may result in County Court or even High Court action.

### **5.1.5 Voluntary Remediation**

RDC seeks to encourage voluntary remediation whenever possible and in cases where this approach is favoured by a responsible person then the Council will oversee the works to

ensure that they are carried out properly by professionally qualified and experienced persons. If the responsible person wants to remediate land voluntarily then the Council will not necessarily make a formal determination, provided the remediation happens to an appropriate standard and timescale. If the responsible person fails to carry out the remediation as agreed then the Council may make a determination at any time.

### **5.1.6 Special Sites**

Part 2A provides for certain land that meets the definition of contaminated land to be designated as a Special Site, if it meets one of a number of categories of land prescribed in the Contaminated Land (England) Regulations 2006.

In cases where RDC believe that land, if found to be contaminated land, would subsequently be a Special Site, we will ask the Environment Agency (EA) to carry out a site inspection on our behalf, prior to determination of that land as contaminated land. However, the responsibility for formal determination of any land as contaminated land remains with the Council

Once land has been determined to be contaminated land, and where the EA and Council agree (or the Secretary of State decides) that the land is also a Special Site, the EA will take over the role of enforcing authority from the Council.

Remediation of the site may include further investigation and assessment, action to remedy the unacceptable risks identified or monitoring. The EA is responsible for maintaining a public register of regulatory action for Special Sites.

### **5.1.7 Harm to Receptors**

The statutory guidance specifies different levels of harm to different receptors at which land is to be designated as contaminated land. The strategy lists the RDC priorities under Objective 3 (page 15), which correspond to the receptors listed in the Statutory Guidance.

#### *5.1.7.1 Human Health*

The Council will treat each site on a case-by-case basis as the factors which determine what constitutes 'significant harm', such as contaminant, soil type, soil properties, pH, land use etc., will be different for each site.

The Council will also liaise with the HPA for advice on any approach taken in deciding on what is significant or not significant.

#### *5.1.7.2 Controlled Waters*

The Council will seek the advice of the Environment Agency in these cases as they have the necessary expertise in this subject.

#### *5.1.7.3 Ecological Receptors*

The Council will always seek the advice of Natural England and the North Yorkshire County Council Ecologist in these cases. The Council will also consult species and/or habitat specific experts should this be necessary.



#### *5.1.7.4 Property (Animals, Crops etc.)*

The Council will liaise with and take advice from the Food Standards Agency (FSA), Defra or other specialist if there is any possibility of harm to receptors in this category, or if there is any possibility of harm to the food chain where humans will ultimately be the receptor.

#### *5.1.7.5 Property (Buildings)*

The Council will liaise with and take advice from the North Yorkshire Building Control Partnership on risks to general buildings. In cases where the building is a Listed Building, Scheduled Ancient Monument or other designated site, then the Council will seek the advice of its own Conservation Officer, NYCC, Natural England or any other specialist individual or organisation deemed competent by the Council.

## **5.2 Local Authority interests in land**

The RDC Land Asset Register, as shown on the Council's GIS, shows 362 recorded entries of land and property owned by RDC.

This information has been cross-referenced with the Landmark historical land use data to see which properties coincide with sites of potential contamination. The results show there are 65 of these sites in the RDC area that coincide with historical land use sites.

The sites in which RDC have an interest will not be inspected as a priority before other sites in the district that could pose a more serious risk to human health or other receptor. However, they will be assessed to see if the current occupiers need to be informed of the historical land use and whether the use of the land is likely to create contaminant linkages.

A list of sites that coincide with Landmark historical land use data is presented in Appendix 5.

## **5.3 Information Collection**

Information on historical land use in the RDC area was originally compiled in-house by manually assessing modern day mapping for references to former land use. This method generated a list containing approximately 1000 sites.

Whilst accepted at the time as a starting point there were potential flaws in this method of data collection as many historic land uses have not been transcribed onto modern mapping which would have resulted in large numbers of sites being missed and an under-estimation of the total number of sites of concern.

Landmark historical land use data was purchased for the RDC area in 2012 and there are over 8200 historical land uses requiring inspection under Part 2A.

### **5.3.1 Future Site Identification**

The Council is confident that all the sites with a potentially contaminating historical land use have been identified however there is always the possibility of sites arising of which the Council is not aware. In these circumstances information from members of the public or other

bodies would be the most likely source of information. New information may arise following pollution incidents and these will be dealt with at the time and prioritised accordingly.

## 5.4 Information and Complaints

Information received from third parties concerning potentially contaminated sites or possible harm or significant pollution of controlled waters will be recorded on the RDC Idox *Uni-form* system and where necessary further investigation will be undertaken.

Complaints received by the Environmental Health Service in respect of contaminated land will be dealt with following the existing complaint procedure.

Any person making a complaint regarding a contaminated land site will be asked to supply their name, address and evidence of contamination or reasons for suspecting contamination. All details will be kept confidential as far as practicable.

Information received from an anonymous source regarding any site must be thoroughly evaluated before investigation, as information received anonymously cannot be treated with the same level of confidence as information received from a named source.

## 5.5 Information Evaluation

### 5.5.1 Site Prioritisation

The prioritisation of RDC historical land uses started in October 2012. Approximately one third of these sites had been prioritised by the end of February 2013 and it is anticipated that the remainder of the sites will be completed by end of September 2013.

### 5.5.2 Site Assessments

Site assessments of potentially contaminated land can be complex and therefore it is crucial to follow a defined series of steps with decisions that are clear, unambiguous and transparent.

The Environment Agency has published a guidance document entitled “Model Procedures for the Management of Land Contamination”, CLR 11, which was developed to provide the technical framework for applying a risk management process when dealing with land affected by contamination. The process involves identifying, making decisions on, and taking appropriate action to deal with, land contamination in a way that is consistent with government policies and legislation within the UK.

The basic risk management process in the Model Procedures has three main components:

- Risk assessment – establishing whether unacceptable risks exist and, if so, what further action needs to be taken in relation to the site;
- Options appraisal – evaluating feasible remediation options and determining the most appropriate remediation strategy for the site;
- Implementation – carrying out the remediation strategy and demonstrating that it is, and will continue to be, effective

This approach can be, and will be, used for the following categories of receptor and by using supporting guidance and documentation specific to each receptor.

#### *5.5.2.1 Human Health*

For evaluating a significant risk of significant harm to human health, the Council will compare any site specific information against published standards relevant to the UK.

The primary guidance document is the Environment Agency's Contaminated Land Exposure Assessment (CLEA) guidance. The Council will use this guidance to assess the risk of contaminated land to human health. Soil Guideline Values (SGVs) for various contaminants have been published and these will be used as part of the assessment.

In cases where there are contaminants for which no SGV has been published, the Council will use other, scientifically based and authoritative Generic Assessment Criteria (GAC) such as that published by the Chartered Institute of Environmental Health/Land Quality Management (CIEH/LQM). Each contaminant will be assessed on a site by site basis and if necessary site specific modelling will be carried out.

#### *5.5.2.2 Controlled Waters*

For pollution of controlled waters the Council will make a judgment of whether there is a significant pollutant linkage where controlled waters form the receptor. This will be carried out by a preliminary risk assessment, site visit and, if required, limited sampling. The Council will adhere to the EA document "Environment Agency Technical Advice to Third Parties on Pollution of Controlled Waters for Part 2A of the Environmental Protection Act 1990, No 07/02. EA, 2002."

If a contaminant linkage is identified the Council will request the Environment Agency to carry out further work on the Council's behalf.

At the initial sampling stage, results from sampling will initially be compared to the water quality regulations. If there are exceedances then a further site specific assessment will be carried out using the EA document "Methodology for the derivation of remedial targets for soil and groundwater to protect Water Resources." The Council will continue to seek further advice from the EA during this assessment.

#### *5.5.2.3 Ecological Receptors*

The Council will assess risks to ecological receptors by using the Environment Agency Science report SC070009/SR1 "An ecological risk assessment framework for contaminants in soil."

The Ecological Risk Assessment (ERA) Framework for contaminated soils was developed by the Environment to provide a structured approach for assessing the risks to ecology from chemical contamination in soils that is requirement under Part 2A.

The report sets out a three-tiered risk assessment process that has been designed to:

- establish whether pollutant linkages between the contamination and the designated ecological receptors are likely to exist;

- gather sufficient information for making decisions regarding whether harm to those receptors is, or could, occur.

The Science Report does not provide criteria on which determinations of contaminated land can be made but is intended to structure decision-making and, as such, the Council will always seek the advice of Natural England, the NYCC Ecology Officer or species/habitats specialists.

#### *5.5.2.4 Property (Crops, Animals)*

The Council will assess and manage risks to property in the form of crops and animals etc by following the Model Procedures and by seeking advice from the FSA, Defra or other specialist appropriate to the specific receptor.

#### *5.5.2.5 Property (Buildings)*

The Council will assess and manage risks to buildings by referring to the following guidance documents published by the Environment Agency:

- Research and Development Technical Report P331 Risks of Contaminated Land to Buildings, Building Materials and Services
- R&D Technical Report P5-035/TR/01 Assessment and Management of Risks to Buildings, Building Materials and Services from Land Contamination.

## **6. GENERAL LIAISON AND COMMUNICATION PROCEDURES**

### **6.1 General Liaison and Communication Strategies**

All communications relating to contaminated land will be directed through the Senior Scientific Officer (SSO) in Environmental Health (Scientific Services).

The Council is part of the Yorkshire and Humberside Pollution Advisory Council (YAHPAC) and represent the authority at regular meetings.

Service areas in addition to Scientific Services that will be involved in the inspection process include Economic Development, Development Control Services, and Legal Services.

#### **6.1.1 Information and Complaints**

Information requests and complaints relating to potentially contaminated land are likely to be received from members of the public, businesses or community groups. These will be received and recorded by Environmental Health Technical Support team and will be allocated to the SSO for action.

#### **6.1.2 Internal Management Arrangements for Inspection and Identification**

Within Richmondshire District Council, Scientific Services has responsibility for implementing Part 2A. The SSO is lead officer for contaminated land, reporting to the Lead Environmental Health Officer in the Residential team. The SSO will deal with the day-to-day implementation of the Strategy once it has been approved by elected members.

The SSO will be responsible for serving remediation notices, subject to consultation with the Lead Environmental Health Officer, the Environmental Health Manager and the Legal Adviser.

Elected members will be informed at the earliest opportunity of any plans to designate an area of council-owned land, or land where the Council is the “appropriate” person and may be liable for remediation costs.

Where a site is suspected as being a Special Site, the Environment Agency will be consulted from the commencement of any investigation. Where possible, before authorising or carrying out any land inspection, the SSO will consider whether it would meet any of the descriptions of land to be designated as a Special Site.

#### **6.1.3 Land Searches**

Land Search enquiries containing general questions on contaminated land are currently dealt with by Land Charges. Specific enquiries are forwarded to the SSO for response.

#### **6.1.4 Environmental Searches**

The Council also provides information on potentially contaminated land as part of Environmental Searches which individuals or companies request. The amount of information provided is determined by the needs of the requester and the level of fee applicable to the search.

#### **6.1.5 Communication Strategy**

The Council's latest Community Engagement Strategy ran from 2009 to 2012 so is currently out of date. A new Strategy is being re-written and will be available in the near future. All communications with the public and other organisations in respect of implementing the Contaminated Land Strategy and dealing with contaminated land issues will be in accordance with the corporate standards for community engagement.

#### **6.1.6 Statutory Consultees**

The collection of data on potentially contaminated land will require a high degree of liaison/consultation with both internal and external bodies. The statutory organisations to be approached are:

- Environment Agency
- Department for Environment, Food and Rural Affairs
- Natural England
- English Heritage
- Food Standards Agency
- North Yorkshire County Council
- Health Protection Agency

The Council's main consultee will be the Environment Agency through their role as advisor on contaminated land issues. Working contacts have already been established with the local Environment Agency officers. The Environment Agency and the Local Government Association has compiled a memorandum of understanding that describes how information will be exchanged. The Council will therefore exchange information with the Environment Agency following the guidelines agreed by this national forum.

Actions carried out under Part 2A, which may affect nature conservation interests including protected species, must be carried out with regard to existing relevant statutory legislation and guidance.

#### **6.1.7 Transboundary Liaison between Authorities**

YAHPAC provides an existing mechanism for ensuring cross-boundary liaison between authorities on contaminated land issues. It has been recognised, however, that a formal notification procedure is needed to deal with site-specific issues. Therefore, the following will be adopted.

If an authority suspects any transboundary linkage may exist then it will notify the appropriate neighbouring authorities within ten working days. If the authority considers that urgent action may be required then this notification should take place immediately.

The two authorities will agree an action plan identifying each authority's role in determining the status of the land and associated issues. The enforcing authority will be the authority in whose area the source is situated.

### **6.1.8 Owners, Occupiers and Other Interested Parties**

The Council's approach to regulatory duties is generally to seek voluntary action before taking enforcement action. This is described in the Environmental Health Service's enforcement policy available on the Council website. It is intended to maintain this approach for issues of land contamination. This recognises the fact that in many cases, more effective remediation can be achieved by agreement rather than by enforcement.

### **6.1.9 The Wider Community**

The SSO and the Council will at all times endeavour to communicate the risk of harm to human health or the environment. The Council recognises that residents or interested persons adjacent to a potentially contaminated site may have a variety of concerns prior to any investigation work. The Council will regularly consult and liaise with occupiers and owners, offering free advice and guidance where possible.

In the early stages of a site investigation the Council may not be in a position to quantify the risk. Where this is the case, the Council will aim to issue a preliminary risk assessment as soon as possible. Where further intrusive investigations are required the ward councillors for the area in which the site resides will be notified. Consultation with the Director of Leisure and Health will be carried out where investigations requiring new budgetary requirements may be required.

The Council already has several communication practices which may be used for providing information on issues associated with contaminated land. These include:

- The Press Office
- Ward and Town/Parish Council conferences
- Public meetings
- Area Committees
- Council website

The Council recognises that communicating with large national landowners or large organisations will need to take into account that these landowners may have funding problems and higher priorities in terms of contaminated sites that need remediation. It is the aim of the Council to work with representatives from such organisations to ensure that a suitable timescale is agreed, taking into account the risk to receptors from the contaminated land in question.

## 7. PROGRAMME FOR INSPECTION

### 7.1 Prioritisation of Sites

As part of the Council's previous strategy a list of potentially contaminated sites have been identified and prioritised. The prioritisation assesses the historical land use and considers its proximity to pathways and receptors and rates them for likely risk.

### 7.2 Council priorities for dealing with Contaminated Land:

1. To protect human health
2. To protect controlled waters
3. To protect designated ecosystems
4. To prevent damage to property (animals, crops, buildings etc)
5. To prevent any further contamination of land (pollution incidents)
6. To encourage voluntary remediation
7. To encourage re-use of brownfield land to assist economic development

### 7.3 Timetable for site assessment

A rolling inspection programme of 25 sites per year at RDC has been identified and listed in the Environmental Health service plan. There may be occasions on which it becomes necessary to carry out an inspection in advance of the timetable set out in the strategy. These triggers would include:

- Pollution incidents resulting in land contamination
- Development of Council owned land creating new potential receptors.
- Assistance with proposals for voluntary remediation prior to timetabled inspection
- Identification of local health problems related to possible land contamination.

### 7.4 Arrangements for carrying out detailed inspections

All phases of inspection will comply with current recognised guidance and good practice. All reasonable precautions will be taken to avoid causing harm to the environment resulting from intrusive investigations.

Before a site can be determined as contaminated the confirmed presence of a significant contaminant linkage must be identified. Specific site inspections will take place in three stages:

- Stage 1: Desk Study
- Stage 2: Site Walkover
- Stage 3: Intrusive Investigation



### 7.4.1 Stage 1 - Pre Inspection / Desk Study

The initial risk assessment phase for sites will be the completion of a desk study which will entail a preliminary risk assessment. The objective of this work is to develop an outline conceptual model and establish whether or not there are any potentially unacceptable risks to the identified receptors, arising from potential contamination at the site.

The main activity at this stage is the collection of information, focusing on the sites' three-dimensional characteristics and interaction with the surrounding environment. It identifies all possible receptors, potential contamination and contaminant migration pathways, and shows the possible relationships between them (potential pollutant linkages), taking into account the current and proposed uses of the site. This includes:

- Historic search of all digital mapping information.
- Search of historic information supplied by Landmark Information Group.
- Collection of other information held by the Council, e.g. planning records of previous site investigation.
- Review of information in the former Department of Environment [DOE] Industrial Profiles for the site on possible contaminants on the site.
- Locate and contact the landowner/occupier/appropriate person(s).
- Recording the information collected on Idox Uni-form system.
- Liaison with Environment Agency, Natural England and English Heritage, Defra, FSA, and HPA as necessary.

When carrying out assessments of agricultural and rural land consideration will be given to the DEFRA system of Agricultural Land Classification [ALC] held by the Planning Department.

The results of the Desk study will enable an assessment as to whether further investigation is required to determine whether:

- (a) The land is 'contaminated land' as defined in the statutory guidance
- (b) The land falls within the definition of a 'Special Site'

### 7.4.2 Stage 2 – Site Visit and Visual Inspection.

Site walkovers will be undertaken to validate information collected during the desk study for example to confirm the present conditions of the site, the surrounding area, identify any differences from historic records, to identify any significant surface features and to collect evidence as necessary.

In practical terms the inspection will involve the following steps:

- Notify the land owner of the intention to carry out the inspection.
- Carry out preliminary site inspection of the site in accordance with written procedures and complete site investigation pro forma.
- Collect visual (photographic) evidence of the current site conditions.
- Carry out limited surface sampling from the site. For example soils, waters, herbage or vapours.

This reconnaissance survey will consider any physical constraints that may affect subsequent intrusive investigations, (e.g. limited access to the site, underground or overhead services, proximity to sensitive uses affecting working hours, etc). Dialogue with local residents may also prove useful as sources of historical knowledge. The results of the inspection will be recorded on the Idox Uni-form database linked to the GIS system.

### 7.4.3 Stage 3 – Intrusive Investigations

Following stages 1 and 2 the 'Conceptual Site Model' (CSM) will be refined if required. Should the CSM indicate that a contaminant linkage exists on the site an investigation will be undertaken. All stakeholders, including adjacent occupiers having regard to the risk communication strategy, will be notified. If the site is suspected to be a 'special site' liaison will be made with the EA. Liaison as necessary with Natural England [in relation to significant contamination near SSSIs etc (Wildlife and Countryside Act 1981) and English Heritage [in relation to significant contamination on or near archaeological sites.

Due to the detailed nature of the assessment requirements the Council may employ an independent environmental consultant to undertake the intrusive investigations. This enables the Scientific Services team to focus on other project management issues such as communications with other interested parties, and liaising with other Council sections to ensure that the investigations are effectively completed.

Before engaging consultants the Council will consider the following:

- The Council has set up a framework agreement which contains a list of specialist contractors with the necessary expertise; these will work at agreed rates for the Council.
- The purpose and objectives for the works will be clearly stated to the consultant, e.g. extent of the investigation, number and type of samples/sampling protocols, type of analysis required, whether a remediation scheme is required or whether only a site determination is required.
- A clear brief for the works will be agreed including the method of reporting and the expected outcomes.
- Health and Safety requirements need to be closely followed, particularly the 'Protection of Workers and the General Public during the Development of Contaminated Land' 1991 [ISBN 011885657X].
- Full details of desk study information and preliminary investigation will be provided to the consultant before the start of any work.

The scope of the site investigation will be designed around the conceptual model and meet the requirements of British Standards BS 10175, the code of practice for investigation of potentially contaminated sites. Any intrusive investigations are likely to include:

- Surface sampling: spot samples, surface scrapes
- Excavations: trial pits, trial trenches
- Borings: probes and augers, percussion drilling, rotary drilling
- Vapours and gas surveys
- Controlled Waters Sampling: Sampling of ground waters from standpipes and piezometers, surface water sampling etc.

In order to obtain sufficient data on which to make a proper assessment of the site following a detailed ground investigation, it may be necessary to carry out either repeat sampling programmes or an extended monitoring exercise.

#### **7.4.4 Final Categorisation of Sites**

Where, as the result of a detailed site inspection, the Council identifies a contaminant, a pathway and a receptor with respect to the current use of land within its area and is satisfied that as a result of that pollutant linkage, either:

- significant harm is being caused to that receptor; or
- there is a significant possibility of significant harm being caused to that receptor; or
- significant pollution of controlled waters is being caused; or
- significant possibility of significant pollution of controlled waters is likely to be caused

then it will determine that the land is contaminated land for the purposes of section 78A (2) of the Environmental Protection Act 1990 and will make a written record of that determination.

Having determined that land is contaminated land, the Council will, in accordance with section 73B (3) of the Act, give written notice of that determination to the following people:

- The Environment Agency;
- The owner of the land;
- Any person(s) appearing to the council to be in occupation of the land;
- Any person(s) appearing to the council to be an 'appropriate person'.

#### **7.4.5 Designation of Special Sites**

Certain classes of contaminated land prescribed by regulation 2 of the Contaminated Land (England) Regulations 2006 are required to be designated as 'special sites'.

If it appears to the Council that land which has been determined as contaminated land is required to be designated a 'special site' it will give written notice of that decision to relevant parties.

Where such a notice is given, the Environment Agency is required to respond within 21 days indicating whether or not it agrees with the council's decision. In cases where the Environment Agency and the Council disagree the matter will be referred to the Secretary of State who may confirm or reverse the council's decision with respect to all or part of the land.

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## 8. REVIEW MECHANISMS

The strategy outlines the general approach to be taken in inspecting land in the District for contamination. This section will describe instances when inspections will occur outside this general inspection framework, circumstances under which previous inspection decisions should be reviewed and measures to be taken to ensure the strategy remains effective and up-to-date.

### 8.1 Triggers for undertaking inspection

The strategy has already recognised there may be occasions where inspections may have to be carried out outside of the general inspection framework. Triggers for undertaking non-routine inspection may include:

- a. Unplanned events - e.g. pollution incidents, natural disasters;
- b. Introduction of new receptors - e.g. if housing is to be built on a potentially contaminated site, designation of a new protected ecosystem, persistent trespass onto a site by unauthorised persons;
- c. Supporting voluntary remediation – e.g. landowners who wish to remediate their land in advance of any action by the Council;
- d. Identification of localised health effects which appear to relate to a particular area of land;
- e. Responding to information from other statutory bodies, owners, occupiers, or other interested parties e.g. Environment Agency; or
- f. As a result of planning applications or regeneration initiatives.

While these occurrences may trigger non-routine inspections, if this strategy is to prove effective, they must not be allowed to significantly interfere with the milestones laid down in the general inspection framework. It will be important to consider this issue in all strategy reviews.

### 8.2 Triggers for reviewing inspection decisions

In addition there may be occasions where the findings of previous inspection decisions should be reviewed. This might occur, for example, if there were

- a. Significant changes in legislation;
- b. Establishment of significant case law or other precedent;
- c. Revision of the guideline values for exposure assessment;
- d. Previous remediation schemes considered insufficient;
- e. New evidence of a pollutant linkage.

It is important therefore that all decisions are made and recorded in a consistent manner that will allow efficient review.

### **8.3 Reviewing the strategy**

The strategy will be reviewed in accordance with the Statutory Guidance, which recommends a review at least once every five years, although it is likely that a review will take place more frequently.

## 9. INFORMATION MANAGEMENT

Contaminated land investigations, from the preparation of a Strategy, site identification, site prioritisation, inspection and decision making will generate a large volume of information. It is therefore essential that this information is managed effectively so that the contaminated land service is delivery to customers and stakeholders as efficient and cost-effective as possible.

RDC currently uses various electronic systems to manage information.

The Strategy and information used in the preparation of the Strategy is held electronically on Council servers. The Strategy is published on the Council's website where it can be viewed and/or downloaded. Paper copies are also available on request.

Guidance produced by external bodies such as the Environment Agency, Defra, and the Health Protection Agency are stored electronically and we also have links to their websites to check for updates and releases of new guidance.

Site identification information is held electronically and also on paper records. The bulk of the information is electronic and is made up of Landmark Information Group historical land use data. This information is stored on the Council GIS (Graphical Information System) ArcMap. The data is presented as a series of points, lines and regions that identify a historical land use between 1850 and present day. The information is supported by tables containing land use information, dates and grid references etc that assist the site prioritisation.

The prioritisation of potentially contaminated land was carried out in-house using a spreadsheet scoring system. Relevant information such as historical land use, development history, current land use, nearby receptors, geological and hydrogeological features, property types and controlled waters were all added to the system and a score generated.

Information was also required to be used from a variety of sources including the British Geological Survey (BGS) and Environment Agency and internal sources such as the planning department. BGS and EA data is held on the Council GIS as discrete layers which were cross referenced with site data to formulate a score. The results of the prioritisation are stored as spreadsheets on the Council computer system.

Site investigations require a mixture of electronic documentation and paper records. The main system used to record the site investigation is the Idox Uniform system (Contaminated Land Module). Each site that is due to be inspected each financial year is entered onto the system along with site specific information relating to sources, pathways and receptors. Details of any site visits, walkovers, risk assessments, communications with land owners, consultants, or other stakeholders is recorded to create a complete record of all actions.

When a site does not require any further investigations then the case is closed, with reasons, for the decision. If a site requires further investigation then this is also recorded but the case is kept open for future actions.

The numbers of site investigations carried out are reported on a monthly and annual basis to management so that progress can be measured against the Service Plan target for the year.

Overall performance is reported in the Environmental Health Service Annual report which is available on the Council's website.

## 9.1 Public Register

The Council is required to maintain a public register by Section 78R of the Environment Act 1995. The register, which is available for inspection by the public, is intended to act as a full and permanent record of all regulatory action taken by the Council in respect of the remediation of contaminated land.

Schedule 3 of the Contaminated Land (England) Regulations 2006 Schedule 3 specifies the following as required to be entered on the public register:

- Remediation Notices
- Appeals against remediation notices
- Remediation declarations
- Remediation statements
- Appeals against charging notices
- Designation of special sites
- Notification of claimed remediation
- Convictions for offences.

The public register is available to view during normal opening hours 8.45am and 5.15pm Monday to Thursday and 8.45am to 4.45pm Friday. Photocopies will be charged at the Council's standard rates.

# APPENDICES

## Appendix 1 Statutory Guidance Tables 1 and 2

**Table 1 Ecological System Effects**

Relevant types of receptor	Significant harm	Significant possibility of significant harm
<p>Any ecological system, or living organism forming part of such a system, within a location which is:</p> <ul style="list-style-type: none"> <li>• a site of special scientific interest (under section 28 of the Wildlife and Countryside Act 1981)</li> <li>• a national nature reserve (under s.35 of the 1981 Act)</li> <li>• a marine nature reserve (under s.36 of the 1981 Act)</li> <li>• an area of special protection for birds (under s.3 of the 1981 Act)</li> <li>• a “European site” within the meaning of regulation 8 of the Conservation of Habitats and Species Regulations 2010</li> <li>• any habitat or site afforded policy protection under paragraph 6 of Planning Policy Statement (PPS 9) on nature conservation (i.e. candidate Special Areas of Conservation, potential Special Protection Areas and listed Ramsar sites); or</li> <li>• any nature reserve established under section 21 of the National Parks and Access to the Countryside Act 1949.</li> </ul>	<p>The following types of harm should be considered to be significant harm:</p> <ul style="list-style-type: none"> <li>• 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</li> <li>• harm which significantly 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.</li> </ul> <p>In the case of European sites, harm should also be considered to be significant harm if it endangers the favourable conservation status of natural habitats at such locations or species typically found there. In deciding what constitutes such harm, the local authority should have regard to the advice of Natural England and to the requirements of the Conservation of Habitats and Species Regulations 2010.</p>	<p>Conditions would exist for considering that a significant possibility of significant harm exists to a relevant ecological receptor where the local authority considers that:</p> <ul style="list-style-type: none"> <li>• significant harm of that description is more likely than not to result from the contaminant linkage in question; or</li> <li>• 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.</li> </ul> <p>Any assessment made for these purposes should take into account relevant information for that type of contaminant linkage, particularly in relation to the ecotoxicological effects of the contaminant.</p>



**Table 2: Property effects**

<b>Relevant types of receptor</b>	<b>Significant harm</b>	<b>Significant possibility of significant harm</b>
<p>Property in the form of:</p> <ul style="list-style-type: none"> <li>• crops, including timber;</li> <li>• produce grown domestically, or on allotments, for consumption;</li> <li>• livestock;</li> <li>• other owned or domesticated animals;</li> <li>• wild animals which are the subject of shooting or fishing rights.</li> </ul>	<p>For crops, a substantial diminution in yield or other substantial loss in their value resulting from death, disease or other physical damage.</p> <p>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.</p> <p>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.</p> <p>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 contaminant linkage, a 20% diminution or loss should be regarded as a benchmark for what constitutes a substantial diminution or loss.</p> <p>In this Chapter, this description of significant harm is referred to as an “animal or crop effect”.</p>	<p>Conditions would exist for considering that a significant possibility of significant harm exists to the relevant types of receptor where the local authority considers that significant harm is more likely than not to result from the contaminant linkage in question, taking into account relevant information for that type of contaminant linkage, particularly in relation to the ecotoxicological effects of the contaminant.</p>
<p>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, or buried services such as sewers, water pipes or electricity cables.</p>	<p>Structural failure, substantial damage or substantial interference with any right of occupation. 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.</p> <p>In the case of a scheduled Ancient Monument, substantial damage should also 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.</p> <p>In this Chapter, this description of significant harm is referred to as a “building effect”.</p>	<p>Conditions would exist for considering that a significant possibility of significant harm exists to the relevant types of receptor where the local authority considers that significant harm is more likely than not to result from the contaminant 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 contaminant linkage.</p>

## Appendix 2 RDC Land and Property Ownership

OBJECTID	LEGAL_LAND	DESCRIPTION
1476	132	Darlington Road Roundabout
1477	133	Dundas Street Corner
1313	CP_5	Car Park
1314	3	Car Park Grass Areas
1315	5	Mill Lane OAPs
1316	6	Holmebrae
1317	8	Brookside
1318	9	East View Play Area
1319	10	St Cuthberts Green
1320	11	Wells Green
1321	12	Churchyard
1322	13	Leyburn Road (St Johns View)
1323	14	Churchyard
1324	15	Brompton Court
1325	16	Brompton Court
1326	19	Curties Drive Play Area
1327	20	Honeypot Road
1328	21	Honeypot Road Play Area
1329	22	Old Railway Track
1330	23	Pembury Mews
1331	4	Churchyard
1332	PC_2	Toilet
1333	CP_1	Car Park
1334	NEW	Kingsley Drive
1335	NEW	Regents Park
1336	PP_NEW_3	Heriot Drive
1337	175	Ronaldshay Park
1338	PP_2	Skate Park
1339	NEW	Churchyard
1340	NEW	Love Lane
1341	CP_9	The Station / Swimming Pool Car Park
1342	NEW	Closed Churchyard
1343	NEW	St Alkedas Closed Churchyard
1344	CP_17	Station Road Car Park
1345	PC_6	Hildyard Row Public Toilets
1346	PC_23	Public Toilets
1347	PC_22	Public Toilets
1348	203	Hunton Road
1349	203	Hunton Road
1350	PP_13	Play Park
1351	CP_11	Car Park
1352	125	Baths and Swaleside
1353	191	Shrub Beds
1354		The Ghyll
1355	PP_11	Norman Square Play Area
1356	192	Whitcliffe Grange

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1357	PC_27	Public Toilet
1358	PC_26	Public Toilets
1359	NEW	Aysgarth Closed Churchyard
1360	NEW	Churchyard
1361	NEW	Silver Street
1362	NEW	Reeth Road Cemetery Toilets
1363	NEW	Upper Wensleydale Business Park
1364	NEW	l'Anson Close
1365	NEW	Ashfield Close
1366	NEW	Closed Churchyard
1367	NEW	Innovate
1368	CP_6	Hildyard Row Car Park
1369	CP_3	Camp Centre Car Park
1370	27	Camp Centre
1371	NEW	Bronte Drive
1372	NEW	Austin Drive
1373	CP_	Kneeton Close Car Park
1374	CP_20	Market Place Car Park
1375	PP_44	Little Ings Play Area
1376	CP_?	Hawes Car Park
1377	CP_21	Hawes Car Park
1378	PC_7	Market Place Toilets
1379	PC_12	St Margarets Gents Toilets
1380	PC_30	Museum Public Toilets
1381	CP_7	Shute Road Car Park
1382	PP_NEW_4	Kipling Drive
1383	PP_1	Play Area
1384	PP_57	Play Area
1385	163	Pilmoor Hill
1386	163	Pilmoor Hill
1387	PP_56	St Alkedas Play Area
1388	CP_23	Muker Car Park
1389	CP_22	Langthwaite Car Park
1390	PC_24	Public Toilet
1391	142	Gallowgate Estate
1392	218	Olav Road Plantation
1393	220	Round Howe Picnic Area / Car Park Forestry
1394	221	South of Gallowfields Industrial Estate
1395	222	South of Racecourse
1396	223	Swaleside Forestry
1397	65	Easby Car Park
1398	PP_55	Dale Way
1399	224	Thornborough Hall Forestry
1400	225	Low Bank Wood
1401	PP_51	Glebe Court
1402	92	Maythorne
1403	92	Maythorne
1404	PC_14	Railway Street Toilets
1405	PC_13	Kelberdale Toilets
1406	PP_54	Reeth Road Community Gardens
1407	193	Whitefields Playfield
1408	194	Whitefields

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1409	195	Willance Grove
1410	196	Yorke Square
1411	CP_19	Yorke Square Car Park
1412	199	Bedale Road
1413	199A	Bedale Road Flats F & B
1414	201	Hawthorne Avenue
1415	200	Falcon Close Play Area
1416	202	Hawthorne Drive Play Area
1417	PP_35	Mallard Road Play Area
1418	204	Mallard Road
1419	205	Scotton Gardens
1420	205	Scotton Gardens Play Area
1421	206	Linden Road
1422	207	Springfield Play Area
1423	189	The Batts
1424	190	The Green
1425	CP_18	Round Howe Car Park
1426	CP_13	Nuns Close Car Park
1427	178	Scotts Dyke Terrace
1428	185	Play Area Scots Dyke / St Trinians
1429	184	St Nicholas Play Area
1430	181	St Agathas
1431	CP_14	Car Park North
1432	CP_15	Car Park South
1433	PP_7	Olav Road
1434	PP_48	Pikepurse Play Area
1435	PC_3	Toilets
1436	182	St Hilary Close
1437	183	St James Chapel Wynd
1438	186	Station Bank Rose Gardens
1439	187	Swale House
1440	188	Temple Court
1441	165	Prior Avenue
1442	166	Quaker Lane, Blands Terrace
1443	167	Queens Court
1444	168	Queens Road Roundabout
1445	169	Racecourse Road / Court
1446	170	Railway Track
1447	171	Rear Conan Drive
1448	173	Reeth Road Social Club
1449	PC_18	Falls Public Toilet
1450	174	Riverside Road Forestry
1451	PP_47	Riverside Road Play Area
1452	174A	Gas Holder Garden
1453	CP_16	Foss Car Park
1454	PC_4	Public Toilets
1455	176	Rosemary Lane
1456	177	Round Howe Picnic and Car Park Area
1457	PC_10	Round Howe Public Toilets
1458	146	The Ghyll
1459	147	Golf Club Lane
1460	148	Gower Road Play Area

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1461	149	Green Belt Holding Mound
1462	150	High Garth
1463	151	Holly Hill
1464	155	Lord Mayors Garden
1465	156	Maison Dieu
1466	157	Millcroft
1467	158	Millgate
1468	159	Nuns Close Verges
1469	PC_9	Nuns Close Public Toilets
1470	160	Parade Ground
1471	161	Park Wynd
1472	162	Penn Road
1473	164	Pottergate
1474	130	Cross Lane Play Area
1475	131	Cutpurse Estate
1478	135	Earl Edwin Sub Stataion
1479	136	Earls Orchard
1480	137	Factory Site
1481	138	Flints Yard
1482	139	20 Frenchgate
1483	139A	Frenchgate House
1484	140	Friary Gardens
1485	141	Friary Gardens New Areas
1486	PC_15	Friary Garden / TIC Toilets
1487	143	Gallowgate Open Spaces
1488	144	Garden Centre
1489	145	Charles Court
1490	208	Strawgate Lane and Grove
1491	209	Smithy Close
1492	64	Lewis Close Resident's Car Park
1493	120	Hill Close
1494	PP_32	Bennions Way Play Area
1495	121	Langthorne Drive
1496	122	Quaker Close
1497	123	Alans Court
1498	124	Bargate
1499	126	Cemetery
1500	127	Coronation Place
1501	172	Coronation Place Play Area
1502	128	Cravengate
1503	129	Crofts Avenue
1504	116	Village Green
1505	117	Play Area
1506	119	Yoredale Cottages
1507	214	Cemetery
1508	215	Churchyard
1509	197	Clarence Road Play Area
1510	PC_29	Male Toilets
1511	PC_11	Female Toilets
1512	198	Westfield
1513	PP_50	Spitfire Court Play Area
1514	PP_49	Typhoon Close Play Area

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1515	211	Play Area
1516	211	Playfield
1517	210	Bridge Verge
1518	212	Rear of Car Park
1519	213	Yarborough Close Verges
1520	99	Sports Field
1521	100	St James Close Play Area Moor Road
1522	101	Park Lane
1523	102	The Springs
1524	103	Toilets
1525	104	Kneeton Close OAPs
1526	105	Kneeton Park Housing
1527	106	Kneeton Park / Sports Field
1528	107	Oakfields
1529	109	Village Green
1530	110	Car Park
1531	111	Barningham Road
1532	112	Ivy Crescent
1533	113	Lancaster Road
1534	114	St Lukes Sports Field
1535	115	St Lukes Close
1536	85	Albermarle Play Area
1537	86	St Johns Road / Wandesford Grove
1538	87	St Oswalds Close
1539	88	Village Green
1540	89	Play Area
1541	89A	Sports Field
1542	90	Orchard Close
1543	91	Car Park Grass Areas
1544	58	Play Park
1545	PP_52	Play Area
1546	93	Park View
1547	94	Thornbrough Hall
1548	95	Woodside
1549	96	Glebe Close
1550	97	The Green
1551	98	Churchyard
1552	69	Churchyard
1553	70	Cricket Field
1554	71	Mill Gates
1555	72	Oswin Grove
1556	73	Sports Field
1557	74	Cemetery
1558	75	Flatlands
1559	76	Car Park
1560	77	Churchyard
1561	78	Gayle Lane Play Area
1562	79	Little Ings
1563	80	Town Head
1564	81	Albermarle Play Area (NEW)
1565	82	Darcy Court
1566	83	Hallgarth

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1567	84	Hildyard Row Car Park
1568	53	Grasmere Road
1569	54	Homeless Unit
1570	59	Sutton Avenue
1571	60	Walkerville Flats
1572	61	Walkerville Industrial Estate
1573	PP_28	Play Area
1574	55	Lorry Park
1575	ADDITIONAL_1	Old Railway Track
1576	62	Walkerville Nursery Units
1577	63	Donald Smith Court
1578	64	Lewis Close
1579	65	Car Park Grass Areas
1580	66	Lowthorpe Cottages
1581	67	New Row
1582	68	The Curtain / The Garth
1583	45	Colburn Lane & Colville Road
1584	46	Colville Crescent
1585	56	Oak Tree Court
1586	1	Spencerley Place
1587	2	Village Green Play Area
1588	37	Toilet
1589	38	Willow View Play Area
1590	39	Churchyard
1591	40	Manor Farm
1592	41	Bridge Close
1593	42	Broadway Shops
1594	43	Brough Avenue
1595	49	Coronation Avenue
1596	50	Fifth Avenue
1597	51	Fourth Avenue
1598	52	Grange / Meadowfield Roads
1599	52	Grange / Meadowfield Roads
1600	52	Grange / Meadowfield Roads
1601	52	Grange / Meadowfield Roads
1602	52	Grange / Meadowfield Roads
1603	52	Grange / Meadowfield Roads
1604	24	St Edmunds Close
1605	25	St Pauls Drive
1606	26	Needham Garth
1607	28	Academy House
1608	29	18 Acre Field
1609	30	Alms Houses
1610	31	Arena View Play Area
1611	32	High Street / Mowbray Road
1612	33	Kings Close Play Area
1613	34	Mill Bungalow
1614	35	Noels Court
1615	36	Pallet Hill
1616	44	Catterick Road Verges
1617	48	Constantine Avenue / Grove
1618	57	Open Space Housing Estate

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1619		Lorry Park Toilets
1620	CP_8	Skeeby Car Park
1621	216	Grassgill
1622	17	Brompton Park
1623	PP_	Play Park
1624	PC_19	Public Toilet
1625	PC_5	Broadway Toilets
1626	17	Brompton Park
1627	CP_12	Car Park
1628	PP_58	Play Area
1629		Lorry Park
1630		Car Park
1631	PP_53	Blacksmiths Court Play Area
1632	118	Mill Close Car Park
1633	118	Mill Close
1634	NEW_	The Depot
1635	NEW_	Gallowgate & Quarry Road Grazing Land
1636	NEW_	Coffin Field
1637	1	Spencerley Place
1638	1	Spencerley Place
1639	1	Spencerley Place
1640	1	Spencerley Place
1641	1	Spencerley Place
1642	3	Car Park
1643	2	Village Green
1644	4	Churchyard
1645	5	Mill Lane OAPs
1646	6	Holmebrae
1647	8	Brookside
1648	9	East View Play Area
1649	10	St Cuthberts Green
1650	11	Wells Green
1651	12	Churchyard
1652	13	Leyburn Road (St Johns View)
1653	14	Churchyard
1654	15	Brompton Court
1655	16	Brompton Court
1656	17	Brompton Park
1657	19	Curties Drive (Play Area)
1658	20	Honeypot Road
1659	21	Honeypot Road (Play Area)
1660	22	Old Railway Track
1661	23	Pembury Mews
1662	24	St Edmunds Close
1663	25	St Pauls Drive
1664	26	Needham Garth
1665	27	Camp Centre
1666	H27	Camp Centre
1667	28	Academy House
1668		Alms Houses
1669		Arena View Play Area
1670		High Street / Mowbray Road

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1671	Kings Close Play Area
1672	Mill Bungalow
1673	Noels Court

## Appendix 3 RDC Protected Locations

### Site of Special Scientific Interest (SSSI)

OBJECT ID	SSSI_NAME	SSSI_AREA	EASTING	NORTHING
1	Harkers House Meadows	14.14	386118.6	501995.4
2	Kisdon Force Woods	38.48	389776.0	500995.8
3	Scar Closes, Kisdon Side	4.38	389341.2	500066.0
4	Arkle Beck Meadows, Whaw	8.47	398288.8	504160.0
5	Arkle Beck Meadows, Whaw	8.47	398288.8	504160.0
6	Arkle Beck Meadows, Whaw	8.47	398288.8	504160.0
7	Fothering Holme	10.12	399064.5	504002.2
8	Arkengarthdale, Gunnerside & Reeth Moors	7634.59	394939.2	503051.3
9	Mallerstang-Swaledale Head	6234.75	383649.7	501731.3
10	Mallerstang-Swaledale Head	6234.75	383649.7	501731.3
11	Bowes Moor	4489.89	392626.6	508914.9
13	Black Scar Quarry	1.15	423088.4	505194.6
14	Shaw Beck Gill	29.70	400028.8	504813.5
16	Richmond Meadows	3.04	417578.1	500744.3
17	Richmond Meadows	3.04	417578.1	500744.3
18	Gingerfields	6.89	416096.6	502421.3
19	Gingerfields	6.89	416096.6	502421.3
22	Lower Swaledale Woods & Grasslands	266.88	411958.8	501587.6
23	Lower Swaledale Woods & Grasslands	266.88	411958.8	501587.6
24	Lower Swaledale Woods & Grasslands	266.88	411958.8	501587.6
27	Marsett Rigg	8.52	390006.1	486036.8
28	Millholme Meadow, Thwaite	0.58	389722.8	498012.8
29	Cliff Beck Meadow, Buttertubs	1.44	388013.1	496702.0
30	Cliff Force Cave	98.33	387818.9	495677.5
31	West End Meadow, Lunds	3.57	379183.6	495565.6
32	Semer Water	101.32	391370.3	486383.6
33	Swineley Meadow, Widdale	8.70	380193.8	485948.1
34	Angram Bottoms	10.16	389110.9	499835.6
35	Ox Close	142.07	398679.2	490289.6
36	Thwaite Stones	18.07	389347.3	498903.3
37	Lovely Seat-Stainton Moor	10132.52	398828.4	494421.6
38	Askrigg Bottoms	2.58	394779.3	490337.0
39	Chris's Pasture	3.80	396449.1	488989.3
40	Low Gill Moor Wetlands	63.52	396145.0	487462.4
41	New Close, Calvert Houses	6.47	391993.0	497859.2
42	Whitfield Gill & Mill Gill	18.71	393522.9	492009.0
43	Muker Meadows	14.35	391015.4	498394.1
44	Muker Meadows	14.35	391015.4	498394.1
45	Muker Meadows	14.35	391015.4	498394.1
46	Muker Meadows	14.35	391015.4	498394.1
47	Feetham Holme	3.31	399431.8	497651.5
48	Len Pastures, Crackpot	4.07	397599.3	496622.6
49	Stephen Ings, Crackpot	3.08	397536.9	496523.4
50	Pry & Bottom Meadows, Mid Mossdale	7.36	383779.5	491848.1
51	Pry & Bottom Meadows, Mid Mossdale	7.36	383779.5	491848.1
52	Hell Gill	1.33	378671.7	496904.4

53	Swale Lakes	42.87	424877.8	498576.3
54	East Nidderdale Moors (Flamstone Pin-High Ruckles)	10770.89	414021.7	473514.4
56	Park Hall Meadows, Healaugh	6.80	401155.2	498855.6
57	Park Hall Meadows, Healaugh	6.80	401155.2	498855.6
59	Wanlass Grasslands	68.84	405319.9	489851.2
60	Wanlass Grasslands	68.84	405319.9	489851.2
62	Freeholders Wood	14.34	401379.8	488865.7
63	Freeholders Wood	14.34	401379.8	488865.7
64	Freeholders Wood	14.34	401379.8	488865.7
65	Newton-le-Willows Meadows	4.26	421543.2	489255.6
66	Newton-le-Willows Meadows	4.26	421543.2	489255.6
67	Walden Meadows	11.95	400587.1	482368.0
68	Aysgarth	17.95	400939.3	488646.6
70	Leyburn Glebe	2.64	410063.3	489657.8
78	Bellerby Fields	2.78	411196.8	493187.7
79	River Ure Grasslands	15.10	401738.6	488956.2
80	River Ure Grasslands	15.10	401738.6	488956.2
81	River Ure Grasslands	15.10	401738.6	488956.2
83	Thowker Corner	1.41	408151.1	490456.3

### Special Areas of Conservation

OBJECTID	SAC_NAME	SAC_AREA	EASTING	NORTHING
1	North Pennine Moors	103130.5	399489.4	457851.8
2	North Pennine Moors	103130.5	399489.4	457851.8
3	North Pennine Moors	103130.5	399489.4	457851.8
4	North Pennine Moors	103130.5	399489.4	457851.8
5	Ox Close	142.1	398679.2	490289.6
12	North Pennine Dales Meadows	492.9	383391.3	491749.7
13	North Pennine Dales Meadows	492.9	383391.3	491749.7
14	North Pennine Dales Meadows	492.9	383391.3	491749.7
15	North Pennine Dales Meadows	492.9	383391.3	491749.7
16	North Pennine Dales Meadows	492.9	383391.3	491749.7
17	North Pennine Dales Meadows	492.9	383391.3	491749.7
18	North Pennine Dales Meadows	492.9	383391.3	491749.7
19	North Pennine Dales Meadows	492.9	383391.3	491749.7
20	North Pennine Dales Meadows	492.9	383391.3	491749.7
21	North Pennine Dales Meadows	492.9	383391.3	491749.7
22	North Pennine Dales Meadows	492.9	383391.3	491749.7
23	North Pennine Dales Meadows	492.9	383391.3	491749.7
24	North Pennine Dales Meadows	492.9	383391.3	491749.7
25	North Pennine Dales Meadows	492.9	383391.3	491749.7
26	North Pennine Dales Meadows	492.9	383391.3	491749.7
27	North Pennine Dales Meadows	492.9	383391.3	491749.7
28	North Pennine Dales Meadows	492.9	383391.3	491749.7
29	North Pennine Dales Meadows	492.9	383391.3	491749.7
30	North Pennine Dales Meadows	492.9	383391.3	491749.7
31	North Pennine Dales Meadows	492.9	383391.3	491749.7
32	North Pennine Dales Meadows	492.9	383391.3	491749.7
33	North Pennine Moors	103130.5	399489.4	457851.8

### Local Nature Reserves

OBJECTID	LNR_NAME	LNR_AREA	EASTING	NORTHING
1	Freeholder's Wood & Ridding's Field	18.1	401499.8	488840.0
2	Freeholder's Wood & Ridding's Field	18.1	401499.8	488840.0
3	Freeholder's Wood & Ridding's Field	18.1	401499.8	488840.0
4	Freeholder's Wood & Ridding's Field	18.1	401499.8	488840.0
5	Ballowfield	0.9	398670.0	489836.0
6	Foxglove Covert	30.1	416071.0	497141.3

### Areas of Outstanding Natural Beauty (AONB)

OBJECTID	CODE	NAME	DESIG_DATE	STAT_AREA
3	22	Nidderdale	Feb-94	601.17
2	25	North Pennines	Jun-88	1985.16

## Appendix 4 RDC Private Water Supply Information

### List of Private Water Supplies that are within 50m of Landmark historical land use

OBJECTID	UPRN	NAME	X	Y
2561	010090345329	Melmerby Village	407431.0	485662.0
2564	010090345468	Jingle Pot Supply Hurst	403812.0	501794.0
2882	010034646695	Old Silk Mill Supply	390539.0	487260.0
3522	010004783207	Gilling Wood Hall Supply	416986.0	504791.0
3525	010004783243	West Witton Supply	406275.0	480058.0
3527	010004783248	High Leases Supply	414494.0	501572.0
3856	010012780697	Sowersett Barn Con Supply	404455.0	480539.0
4166	010012780805	Rosemary House Supply	421362.0	496913.0
4484	010012781234	Thornewmire Barn Supply	385475.0	489580.0
4490	010012781345	Gate House Supply	399391.0	489312.0
4491	010012781350	Grayford Supply	399459.0	489201.0
4812	010012781954	Shaw Paddock Supply	378254.0	495148.0
4822	010012782106	Somerdale Hall Supply	394154.0	490067.0
4825	010012782158	Ashes Farm Supply	409873.0	485024.0
4835	010012781535	High Wanlass Supply	405595.0	489207.0
5138	010012782564	Knights Close Supply	399850.0	486451.0
5142	010012782646	Preston Mill Supply	407861.0	490805.0
5448	010012783322	Ellerton Park Supply	425355.0	498202.0
5450	010012783336	Mill Intake Supply	399609.0	502902.0
5454	010012783528	Hilltop Supply	385759.0	501827.0
5785	010012783832	Nun Cote Farm Supply	407551.0	498792.0
5786	010012783837	Bushy Park Supply	410699.0	499605.0
5791	010012783872	Telfit Farm SUppl	408139.0	502308.0
5803	010012784356	East Applegarth Supply	413539.0	501835.0
5804	010012784139	High Stelling Farm Supply	405810.0	501307.0
5816	010034641331	West Birkrigg Supply	383847.0	491436.0
5818	010034641333	Mid Mossdale Supply	383635.0	491742.0
6089	010034641398	St Trinians Supply	419158.0	500765.0
6090	010034641489	The Rigg Supply	399757.0	502600.0
6101	010034641546	Seata Farm Supply	399288.0	488567.0
6103	010034641562	Chantry Supply	404632.0	487604.0
6409	010034641671	East Witton Lodge Supply	413022.0	486115.0
6418	010034641758	Moorcock Inn Supply	379917.0	492762.0
6419	010034641760	Moorcock Cottages Supply	379418.0	492610.0
6423	010034641764	Quarry Farm Supply	378565.0	493839.0
6424	010034641765	Grisedale Crossing Supply	379042.0	93433.0
6433	010034641975	Ashdene Supply	400436.0	498243.0
6438	010034642018	Cocker House Supply	399620.0	502900.0
6439	010034642027	Dubbin Garth Supply	397001.0	497205.0
6447	010034642042	Robson House Supply	98237.0	496158.0
6475	010034642698	Halnaby Grange Supply	426557.0	505236.0
6492	010034642968	Scarth Nick Supply	405850.0	491793.0
6525	010034644518	Kisdon House Supply	390254.0	498531.0
6531	010034644611	Mudd House Supply	397141.0	496950.0
6535	010034644618	Raygill Farm Supply	391142.0	489255.0

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6543	010034644809	The Old Mill Supply	397636.0	496987.0
6547	010034646241	Wensley Village Supply	407783.0	491011.0
6550	010034646293	Arkengarthdale Supply	399586.0	502911.0
6553	010034646434	Redmire Supply	404399.0	491535.0

## Appendix 5 RDC Owned Land Intersecting with Landmark Data

OBJECTID	LEGAL LAND	DESCRIPTION	DISTRICT	SHAPE_AREA
1321	12	Churchyard	Richmondshire District	2361.10925000000
1324	15	Brompton Court	Richmondshire District	2178.74210500000
1329	22	Old Railway Track	Richmondshire District	13420.81035000000
1341	CP_9	The Station / Swimming Pool Car Park	Richmondshire District	2198.51601950000
1350	PP_13	Play Park	Richmondshire District	2773.67155500000
1352	125	Baths and Swaleside	Richmondshire District	10517.62217300000
1356	192	Whitcliffe Grange	Richmondshire District	5281.48617000000
1359	NEW	Aysgarth Closed Churchyard	Richmondshire District	17110.41448450000
1362	NEW	Reeth Road Cemetery Toilets	Richmondshire District	8.91381200000
1363	NEW	Upper Wensleydale Business Park	Richmondshire District	659.28023700000
1367	NEW	Innovate	Richmondshire District	1231.52168300000
1369	CP_3	Camp Centre Car Park	Richmondshire District	684.74867100000
1370	27	Camp Centre	Richmondshire District	283.88152500000
1380	PC_30	Museum Public Toilets	Richmondshire District	34.50286300000
1383	PP_1	Play Area	Richmondshire District	393.12045000000
1384	PP_57	Play Area	Richmondshire District	70.14919000000
1391	142	Gallowgate Estate	Richmondshire District	6424.88093300000
1396	223	Swaleside Forestry	Richmondshire District	5822.61372500000
1400	225	Low Bank Wood	Richmondshire District	39980.38801500000
1409	195	Willance Grove	Richmondshire District	4121.95955500000
1419	205	Scotton Gardens	Richmondshire District	2512.28094400000
1421	206	Linden Road	Richmondshire District	4726.75680350000
1423	189	The Batts	Richmondshire District	16459.27267800000
1434	PP_48	Pikepurse Play Area	Richmondshire District	3900.75995000000
1446	170	Railway Track	Richmondshire District	30274.46280550000
1448	173	Reeth Road Social Club	Richmondshire District	396.63794800000

1449	PC_18	Falls Public Toilet	Richmondshire District	40.09387500000
1450	174	Riverside Road Forestry	Richmondshire District	979.80793950000
1451	PP_47	Riverside Road Play Area	Richmondshire District	1312.46939000000
1452	174A	Gas Holder Garden	Richmondshire District	690.47227800000
1453	CP_16	Foss Car Park	Richmondshire District	889.15300000000
1456	177	Round Howe Picnic and Car Park Area	Richmondshire District	12241.03498600000
1466	157	Millcroft	Richmondshire District	1290.07443500000
1475	131	Cutpurse Estate	Richmondshire District	4644.02366050000
1488	144	Garden Centre	Richmondshire District	859.67729350000
1499	126	Cemetery	Richmondshire District	31524.14778700000
1501	172	Coronation Place Play Area	Richmondshire District	476.12534000000
1507	214	Cemetery	Richmondshire District	840.90542000000
1508	215	Churchyard	Richmondshire District	6942.26927500000
1538	87	St Oswalds Close	Richmondshire District	2419.23596300000
1540	89	Play Area	Richmondshire District	1299.24368500000
1544	58	Play Park	Richmondshire District	1770.82189050000
1545	PP_52	Play Area	Richmondshire District	317.99640150000
1557	74	Cemetery	Richmondshire District	4738.99324000000
1567	84	Hildyard Row Car Park	Richmondshire District	2312.47066150000
1574	55	Lorry Park	Richmondshire District	7526.40799650000
1575	ADDITIONAL_1	Old Railway Track	Richmondshire District	4243.18934450000
1583	45	Colburn Lane & Colville Road	Richmondshire District	1117.57423200000
1592	41	Bridge Close	Richmondshire District	768.13945000000
1610	31	Arena View Play Area	Richmondshire District	1962.64895000000
1615	36	Pallet Hill	Richmondshire District	438.29186500000
1616	44	Catterick Road Verges	Richmondshire District	941.75045000000
1617	48	Constantine Avenue / Grove	Richmondshire District	4135.81098300000
1618	57	Open Space Housing Estate	Richmondshire District	33247.54162850000
1622	17	Brompton Park	Richmondshire District	4467.11015000000



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1628	PP_58	Play Area	District Richmondshire	84.51438400000
1629		Lorry Park	District Richmondshire	2483.88523700000
1634	NEW_	The Depot	District Richmondshire	4506.65777300000
1635	NEW_	Gallowgate & Quarry Road Grazing Land	District Richmondshire	42886.90161100000
1654	15	Brompton Court	District Richmondshire	2178.74210500000
1656	17	Brompton Park	District Richmondshire	6194.96580000000
1660	22	Old Railway Track	District Richmondshire	13420.81035000000
1665	27	Camp Centre	District Richmondshire	85.89750000000
1666	H27	Camp Centre	District Richmondshire	63.32753150000
1669		Arena View Play Area	District Richmondshire	1962.64895000000

## Appendix 6      Prioritisation method

### RISK PRIORITISATION CALCULATION SHEET

SITE NAME :

NGR: \_\_\_\_\_

DATE: \_\_\_\_\_

#### **SOURCES**

##### **Historical Land Use assessment**

If more than one land use during the sites history, input the highest score

<b>Enter corresponding land use value from the lookup table</b>	<b>50</b>
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##### **Remediation**

Remediation undertaken under current guidance	0.1
Remediation undertaken on site later than 1990	0.4
Remediation undertaken on site pre -1990	0.6
No evidence on the site being remediated	1.0

<b>Score</b>	
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#### **PATHWAYS**

##### **Solid Geology**

Low risk e.g. low permeability solid rock	1
medium risk	3
high risk - e.g. permeable, fractured, fissured rock	5
No data	5

<b>Score</b>	
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### Drift Geology

Low risk e.g. predominantly clay across the site (low permeability)	1
Medium risk	3
High risk - e.g no drift, made ground, sand, gravel	5
No data	5

Score	
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### Mines, Drains, Services

No drainage, services (wells culverted rivers) wells or suspected mining/quarrying activities	1
The presence of drainage, services (including culverted rivers) wells or suspected mining/quarrying activities across the site <b>UNLIKELY</b> given the history of the site	2
The presence of drainage, services (including culverted rivers) wells or suspected mining/quarrying activities across the site <b>LIKELY</b> given the history of the site	3
Drainage, services (wells culverted rivers) wells or suspected mining/quarrying activities	5
No data	4

Score	
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## RECEPTORS

### Present use of site

Outdoor industrial or commercial yards	20
Industrial or factory buildings well-vented or open sided	40
Office, leisure, commercial /retail buildings Public open space of recreation use Agricultural land and buildings	80
Schools, nurseries, hospitals, institutional buildings	170
Managed houses with gardens Managed houses with no gardens Private domestic dwelling with gardens Private domestic dwelling no gardens Allotments	190

Score	180
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### Adjacent Site Uses

<b>50-250m</b> Outdoor industrial or commercial yards	5
<b>0-50m</b> Outdoor industrial or commercial yards	10
<b>50-250m</b> Industrial or factory buildings well-vented or open sided	
<b>0-50m</b> Industrial or factory buildings well-vented or open sided	20

<b>50-250m</b> Office, leisure, commercial /retail buildings Public open space of recreation use Agricultural land and buildings	50
<b>50-250m</b> Schools, nurseries hospitals institutional buildings	55
<b>50-250m</b> Managed houses with gardens Managed houses with no gardens Private domestic dwelling with gardens Private domestic dwelling no gardens Allotments	60

<b>0-50m</b> Office, leisure, commercial /retail buildings Public open space of recreation use Agricultural land and buildings	70
<b>0-50m</b> Schools, nurseries hospitals institutional buildings	80
<b>0-50m</b> Managed houses with gardens Managed houses with no gardens Private domestic dwelling with gardens Private domestic dwelling no gardens Allotments	90

<b>Score</b>	<b>70</b>
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### Natural Environment

No designation	1
<b>50-250m</b> Site of biological importance	2
<b>50-250m</b> Statutorily designated site	3
<b>0-50m</b> Site of biological importance	10
<b>On site</b> Site of biological importance	15
<b>0-50m</b> Statutorily designated site	20
<b>On site</b> Statutorily designated site	25
Uncertainty - seek specialist advice	

Score	1
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### Property and Heritage Sites

No designation	1
Site within conservation areas Other recorded sites and monuments Areas with shooting or fishing rights	4
Ancient monuments, archaeological sites, listed buildings Owned or domesticated animals	6
Produce grown domestically for consumption Crops including timber	8
Uncertainty - seek specialist advice	

Score	
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### Surface Water

No surface waters No abstractions within 1000 m of the site	1
<b>50-250m</b> - River Classification D E F Pond Lake Reservoir	5
<b>50-250m</b> - River with classification A,B, C any surface water abstraction between 500-100m downstream	6
<b>0 - 50m</b> - River Classification D E F Pond Lake Reservoir	13
<b>0 - 50m</b> River with classification A,B or C surface water abstraction for drinking water less than 500m downstream	16
<b>On site</b> river with classification A, B or C Pond, lake, reservoir	22
<b>On site</b> river with classification A, B or C Any surface water abstraction on or adjacent to the site	25

Score	
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### Groundwater

Non aquifer	1
Minor Aquifer - low risk	5
Major Aquifer - low risk Minor Aquifer - medium risk Zone III (SPZ)	8
Major Aquifer - medium risk	

Minor Aquifer - high risk Zone II (SPZ)	15
Zone I (SPZ) Major Aquifer - high risk	25
Uncertainty - seek advice from EA	25

Score	
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**RISK RANKING SCORE**

<b>0</b>
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