

## **Contaminated Land Inspection Strategy**

**Revised December 2023** 

## Foreword by Cabinet Member for Public Health and Communities

#### **Contaminated Land Inspection Strategy**

As we look around us in Rhondda Cynon Taf, we see a landscape rich in industrial history and steeped in potential. In order to fulfil this potential, we need to use our environment effectively and address cases where land is not in a condition to be used productively, freeing up sites for positive economic and social purposes.

Part of this means that we need to deal with any cases of contaminated land so that first and foremost, there are no risks to the health and welfare of our residents and secondly, we reclaim as much of that land as possible so it can support the ongoing regeneration of the County Borough.

Our Environment in Rhondda Cynon Taf is key to our economic prosperity and sense of community. We all have a responsibility to care for our environment both now and for future generations to safeguard health from the risks posed by contaminated land.

As a Local Authority, we are required to have a strategy for identifying contaminated land and its subsequent remediation. The Planning regime plays a key part in ensuring the safe and sustainable redevelopment of land with a previous use. We are fully committed to working with communities so that together we establish a cleaner and more productive Rhondda Cynon Taf.

Councillor Bob Harris Cabinet Member for Public Health & Communities

## **Contaminated Land Inspection Strategy**

#### **Executive Summary**

Contaminated land can affect health, blight areas, and preclude redevelopment. The reclamation of derelict and often contaminated industrial sites can therefore be a crucial factor in the regeneration of communities. Rhondda Cynon Taf has had a history of industrial exploitation, which has left a legacy of over 4600 such sites. Many of them are in prime locations and are ripe for redevelopment. The contaminated land regime compliments the Planning and Development Control process and provides a mechanism to release some of the most contaminated sites for beneficial use. Its risk-based approach will ensure that these sites are cleaned up sufficiently to enable them to be safely used for their new purpose. It therefore supports regeneration whilst at the same time, safeguards the health of our community, which is a key corporate objective.

Fully involving communities that may be affected by contaminated land is a top priority and is part of our Community Leadership role. To this end, our goals and objectives for community involvement are:

- Earning trust and credibility through open, transparent, and respectful communications
- Helping community members understand what the process involves
- Promoting collaboration between the Council and communities and other agencies
- Providing opportunities for communities to become involved
- Managing and co-ordinating health communication activities with appropriate communities
- Informing and updating communities about the Council's work
- Assisting communities in understanding the possible health impacts of exposure to hazardous substances

The Council's Contaminated Land Inspection Strategy has been designed to achieve the following set of priorities with respect to potentially *contaminated land:* 

- 1. To protect human health and well being
- 2. To encourage the redevelopment of damaged land/ reuse of brownfield land
- 3. To encourage voluntary remediation
- 4. To communicate and work effectively with other organisations to protect other *receptors*
- 5. To engage with local communities
- 6. To ensure compliance with and enforcement of the legislation and statutory guidance

In 1997 a Contaminated Land Officer was appointed to identify all the land in Rhondda Cynon Taf having a previous use that might lead to it being contaminated, with approximately 4600 sites initially being identified. This number has increased slightly over time as further information has become known and additional sites recorded. The sites were plotted on a computerised mapping system (GIS) with key information recorded on a purpose-built computerised data management system (GeoEnviron) and prioritised for further investigation, based on the risk that they could pose. This was established through the identification of the current and past land uses with further refinement based on the proximity of controlled waters. These more detailed investigations will seek to establish whether the sites meet the statutory definition of *contaminated land*. Sites that are determined to be *contaminated land* will, at the appropriate time, be logged on a Public Register. This will be maintained by the Pollution Control Team and will be available for viewing at the appropriate Council offices.

The legislation specifies a list of categories of *contaminated land*, which must be classified as *Special Sites*. Local Authorities must hand these over to Natural Resources Wales (NRW) as the enforcing authority. In these cases, NRW will take the lead role in the investigation, although the Council will retain responsibility for deciding whether to determine the sites *contaminated land* and will continue to champion our communities as part of our Community Leadership role. This partnership approach has already been tried and tested through the identification and designation of a *special site* in the Borough.

As the *enforcing authority* for the remaining *contaminated land* sites, the Council will be required to secure their *remediation*. *Contaminated land* for which the Council has responsibility or liability will be subject to the same processes as all other land covered by Part 2A. It is recognised that some areas of *contaminated land* may require immediate attention. These sites will be dealt with as soon as they are discovered to ensure that sensitive receptors are not compromised by delay arising from our administrative procedures.

The Council will liaise fully with all other relevant bodies (particularly NRW) to ensure that decisions on *contaminated land*, which affect the health of our community, are made in the light of the fullest information and the best advice.

The law covering these duties is contained in Part II of the Environmental Protection Act 1990 and was amended by The Environment Act 1995 to include provisions requiring Local Authorities to identify *contaminated land* within their boundaries and to keep a register of all such sites. The amendment also requires Local Authorities to secure the remediation of these sites. These requirements are now set out in Part 2A of the Environmental Protection Act 1990. They came into force in Wales in July 2001 through the Contaminated Land (Wales) Regulations 2001.

The Contaminated Land regime was supported by comprehensive statutory guidance issued by the National Assembly for Wales in November 2001. The guidance requires Local Authorities to prepare a strategy detailing how they will take a rational, ordered, and efficient approach to this inspection process. This document is Rhondda Cynon Taf County Borough Council's Contaminated Land Inspection Strategy (CLIS). It has

been written in accordance with the technical advice issued by the National Assembly for Wales.

The draft CLIS was distributed to interested parties for consultation with a request that responses were made by 4<sup>th</sup> September 2003. Rhondda Cynon Taf County Borough Council gratefully acknowledges the constructive contributions made by respondents. The final document was published in January 2004 and addressed all the responses received as a result of the consultation process.

In 2006 Part 2A of the Environmental Protection Act was extended to include radioactive contaminated land (RCL). It only applies in circumstances where radioactivity is the result of past practice or work activity, or the after-effects of a radiological emergency. Whilst the Council has a statutory duty to inspect land for radioactivity, there must be reasonable grounds for doing so. These are defined by statutory guidance. The CLIS was reviewed and updated in 2008 to reflect these changes.

In 2012, following a public consultation exercise carried out between December 2010 and March 2011, the Welsh Government issued new Statutory Guidance and Regulations. The CLIS has been updated to take account of the 2012 Statutory Guidance, the new Council Policy Context for the Strategy and the progress made since the last revision in 2008.

The CLIS was last reviewed and revised in 2016 and was due to be reviewed again in 2021, however this task was delayed until 2023 due to the impact of the global pandemic.

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### **Chapter 1 Introduction**

Part 2A of the Environmental Protection Act 1990 (Part 2A) - introduced by section 57 of the Environment Act 1995 – provides the regulatory regime for the identification and remediation of *contaminated land*. In addition to the requirements contained in the primary legislation, operation of the regime is subject to secondary legislation - Regulations, and Statutory Guidance.

The National Assembly for Wales (now Senedd Cymru) were responsible for the publication of the Welsh Regulations and Statutory Guidance. The Contaminated Land (Wales) Regulations came into force in June 2001 with the Statutory Guidance (Remediation of Contaminated Land) following in November 2001.

In December 2006 Part 2A was extended to cover radioactive contaminated land (RCL) by the Radioactive Contaminated Land (Modification of Enactments) (Wales) Regulations 2006. This resulted in the Statutory Guidance and Regulations being revised and reissued by the National Assembly for Wales (Part 2A Statutory Guidance on Contaminated Land - December 2006, Contaminated Land (Wales) Regulations 2006- National Assembly for Wales).

In 2012, following a consultation exercise undertaken by DEFRA and WAG, the existing statutory guidance was revised and reissued. The resulting Welsh Government Guidance Document: Contaminated Land Statutory Guidance -2012 sought to produce a clearer, simpler regime consistent with the principles of good regulation. It focussed on the definition of *"contaminated land"* and commenced section 86 of the Water Act 2003 – amending the definition of *contaminated land* as it relates to *significant pollution of controlled water*. The guidance document does not cover radioactively contaminated land which is provided separately under RCL Statutory Guidance (April 2012). The Contaminated Land (Wales) Regulations 2012 amended the 2007 Regulations.

#### 1.1 Council Policy

The Contaminated Land Inspection Strategy (CLIS) was prepared within the broad context of Rhondda Cynon Taf County Borough Council's corporate aims and objectives as set out in the Community Plan with subsequent reviews ensuring it remains relevant to the current Policy Context.

#### 1.1.2 Single Integrated & Corporate Plan

To secure continuous improvement in the delivery of public services, the Council is required to carry out their responsibilities with reference to clear and over-arching corporate priorities for future development. The Council recognised that there were unlikely to be sufficient resources available to do all that it would like. Difficult choices were made to establish priorities for action. These were based on research and consultation with the community to identify what provided the greatest value for local people.

Consultation led to the development of the first Community Plan (April 2000) where the shared vision for the future development of The Valleys was set out. This enabled resources to be directed towards tackling the problems faced. A new statutory framework resulted in the operation of a Local Service Board with the aim of facilitating multi-agency working towards common objectives. The Local Authority, as a member of Rhondda Cynon Taf Local Service Board has assisted in the production of a Single Integrated Plan – Delivering Change.

The shared vision of the Local Service Board members is that all people in Rhondda Cynon Taf are safe, healthy, and prosperous.

The Local Service Board assessed the needs across our communities and identified key priorities which need to be addressed which will have the biggest impact on achieving this goal. The strongest link the CLIS has to these priorities is through Prosperity via its contribution towards the development of sustainable communities. These are seen as places where people want to live, with pleasant homes and an environment that meets the needs of existing and future residents, including children. It provides a high quality of life and makes the best use of natural resources.

In 2016, the Local Service Board was replaced by a Public Service Board for the Cwm Taf Region. Rhondda Cynon Taf also launched its new Corporate Plan for 2016-2021- "The Way Ahead". One of the key priorities within that plan was the promotion of a clean and attractive environment for all and the promotion of a prosperous economy; objectives linked to the CLIS.

At that time, work had already been done towards this with the Council adopting a Local Development Plan in 2011. This informed and complemented 'The Way Ahead' and the Single Integrated Plan, containing details of how social, economic and environmental issues would be balanced to meet the needs of those people living, working and visiting Rhondda Cynon Taf. The plan set out how we would use land for new housing, employment, and retail sites with sustainability as its central principle.

'The Way Ahead' has since been replaced and the current Corporate Plan 2020-2024 – "Making a Difference" sets out our Vision to make Rhondda Cynon Taf the best place in Wales to live, work and play, where people and businesses are 'independent, healthy, and prosperous' and sets out our three priorities, which are: -

- Ensuring our PEOPLE: are independent, healthy, and successful.
- Creating PLACES: where people are proud to live, work and play.
- Enabling PROSPERTY: creating the opportunity for people and businesses to be innovative; entrepreneurial; and fulfil their potential and prosper.

These priorities also serve as the Council's Well-being Objectives which are required by the Well-being of Future Generations Act 2015.

#### 1.1.3 The Well-being of Future Generations (Wales) Act 2015

The Well-being of Future Generations (Wales) Act 2015 is a law to bring about the improvement of the social, economic, environmental, and cultural well-being of Wales. It requires the public bodies listed in the Act to think more about the long-term; to work better together and with the community taking a more joined-up approach to

prevent problems . The Act sets out seven well-being goals which reflect the shared vision for Wales. The key goals associated with the CLIS are a prosperous and healthy Wales, which can be delivered by regenerating communities while safeguarding public health and the environment.

#### 1.1.4 Local Development Plan (LDP) 2022-2037

In March 2022, the Council approved a Delivery Agreement for a Revised LDP 2022-2037. This was approved by Senedd Cymru in April 2022 and the plan is now in preparation and should be adopted in 2025. Until that time, the 2011 plan remains in place.

The current LDP provides a policy framework that integrates and balances the social, economic, and environmental issues in order to meet the needs of those people living, working and visiting Rhondda Cynon Taf. The fundamental principles of achieving sustainable development will underpin all land use decisions. The LDP seeks to build a policy framework that protects important elements of the built, natural and cultural environment, improves town centres, provides new sustainable housing, employment and community facilities in appropriate locations, promotes integrated transport and encourage opportunities for sustainable regeneration. The LDP identifies strategic sites in order to promote sustainable growth within Rhondda Cynon Taf. The sites are allocated for the development of a mixture of large-scale residential, employment, retail, and recreational purposes. The location and scale of these sites presents an opportunity for significant new development to take place across the County Borough. Over the plan period the combination of development on these sites will result in between 5,000 - 5,450 new dwellings, 63 hectares of employment land, 23,400m2 net of new retail floor space and the provision of a significant amount of new open / green space.

Policy AW 10 -Environmental Protection and Public Health states as follows:

Development proposals will not be permitted where they would cause or result in a risk of unacceptable harm to health and / or local amenity because of air pollution; noise pollution; light pollution; contamination; landfill gas; land instability; water pollution; flooding, or any other identified risk to the environment, local amenity and public health or safety unless it can be demonstrated that measures can be taken to overcome any significant adverse risk to public health, the environment and / or impact upon local amenity.

The CLIS allows potential contamination issues to be identified at an early stage during the development process thus ensuring that these issues are given adequate thought and resources.

#### **1.1.5 Service Priorities**

There are a number of service priorities for the Public Health and Protection Service which have been produced to support the objectives of the Council's 2020-24 Corporate Plan. The service priority with relevance to the design and implementation of the CLIS is as follows:

"To deliver services using Public Health and Protection resources to target communities and to protect the public, regardless of age, status or level of vulnerability." (Service Priority 2 – Public Health and Protection Delivery Plan 2023/24)

## 1.2 Regulatory Context - The Contaminated Land (Wales) Regulations 2012.

Regulatory controls now exist over potentially polluting processes that should limit new land contamination being created. Part 2A is intended to deal with the legacy of *contaminated land* that we have inherited from past growth and development. Certain aspects of Part 2A are set out in the Welsh Statutory Guidance issued by the Welsh Government. Together with the Contaminated Land (Wales) Regulations they make important provisions to help give full effect to the regime providing a basis for enforcing authorities to apply the regime fairly.

Under Part 2A, the Council is required to undertake the inspection of land in its area in order to identify *contaminated land*. A strategic approach is required to identify land that merits a more detailed individual inspection. This document outlines the rational, ordered, and efficient approach that the Council intends to take.

#### 1.2.1 The Role of the Local Authority

Under Part 2A the Council must inspect its area from time to time to: -

- identify *contaminated land*; and in the case of RCL ensure inspection of particular land for radioactive contamination.
- have regard to NRW advice on the manner of documentary review and visual inspection where s108 powers not needed.
- Seek to make arrangements with NRW for documentary review and visual inspection if s108 powers are needed.
- seek to make arrangements with NRW for intrusive investigation of potential RCL sites, and
- decide whether any of this land should be designated as a *special site*.

The Council is the *enforcing authority* for all *contaminated land* unless it meets the definition of a "*special site*" in which case NRW is the *enforcing authority*.

#### 1.2.2 The Role of NRW.

NRW will: -

- Act as the *enforcing authority* for areas of *contaminated land* which are designated as "*special sites*" as defined by Regulations 2, 3 and Schedule 1 of the Contaminated Land (Regulations) Wales 2012.
- provide site-specific advice to local authorities when requested, especially in the respect of *pollution to controlled waters*.
- Help local authorities inspect potential RCL.
- Act as the *enforcing authority* for the remediation of RCL
- Periodically prepare the State of Contaminated Land Report to assess the effectiveness of Part 2A.

#### 1.2.3 Other Agencies

The Council will consult with other agencies and authoritative bodies as necessary when considering the potential risks to human health from land contamination. This could include for example: -

- The Food Standards Agency for advice on the food safety implications for consumers where food crops are grown or food animals are reared in areas affected by contamination. This includes food produced in domestic gardens and allotments and food collected from the wild as well as commercially produced food.
- The Environmental Public Health Service Wales.

#### 1.2.4 Defining Contaminated Land

The Council has the sole responsibility for determining whether any land in Rhondda Cynon Taf is *contaminated land*.

*"Contaminated land"* is defined by Section 78A (2) of Part 2A as any land which appears by the Local Authority in whose area it is situated to be in such a condition, by reason of substances in, on or under the land, that -

- a) *significant harm* is being caused or
- b) there is a *significant possibility* of such harm being caused, or
- c) significant pollution of controlled waters is being caused, or
- d) there is a significant possibility of such pollution being caused.

In determining whether any land appears to meet this definition, the Council must follow the guidance issued by the Welsh Government, *Contaminated Land Statutory Guidance* (2012), Sections 3 and 4.

#### 1.2.5 Risk Assessment

The Contaminated Land Regime introduced a risk-based approach to dealing with contaminated land. The two steps in identifying *contaminated land* reflect this approach. Firstly, the Council must satisfy itself that

- a "contaminant linkage" exists on the land and secondly that this,
- is resulting in *significant harm,* or the *significant possibility of significant harm,* or is resulting in the *significant pollution*, or likely to result in the *significant pollution of controlled waters.*

A "contaminant linkage" requires three elements, a "contaminant"; a "pathway"; and a "receptor".

- A *contaminant* is a substance that is in on or under the land and which has the potential to cause *harm* or to cause *pollution of controlled waters*.
- A *pathway* is one or more routes or means, by or through which, a *receptor* is being exposed to, or affected by a *contaminant*, or could be exposed or affected.
- A *receptor* is something that could be adversely affected by a contaminant, for example a person, an organism, an ecosystem, property, or controlled waters.

The Council can only have regard for *receptors* that are likely to be present given the current use of the land or other land which might be affected. Current use may also be taken to include uses for which current planning permission exists. A *significant contaminant linkage* means a *contaminant linkage* which gives rise to a level of risk sufficient to justify a piece of land being determined as *contaminated land*.

Part 2A is not intended to apply to land with levels of contaminants in soil that are commonplace or widespread throughout Wales or parts of it. If land is found to contain normal, or close to normal levels of contamination, it should not be considered further under the regime.

Local Authorities may use *generic assessment criteria* (GAC) and other tools to inform certain decisions under Part 2A. GAC relating to human health risk assessments represent cautious estimates of levels of contaminants in soils at which there is considered to be no risk to health or, at the most, a minimal risk to health.

#### 1.2.6 Significant Harm to Human Health.

Significant harm to human health includes death; life threatening diseases (e.g., cancers); other diseases likely to have serious impacts on health; serious injury; birth defects; and impairment of reproductive functions. Other health effects may be considered to constitute significant harm but only if treating the land as contaminated land is in accordance with the broad objectives of the regime.

Welsh Statutory Guidance sets out for Local Authorities what should be considered in relation to whether a *significant possibility of significant harm* (SPOSH) to human health exists. Four categories are identified (paragraphs 4.19-4.29). Categories 1 and 2 encompass land where SPOSH exists and is capable of being determined as contaminated land and Categories 3 and 4 land not capable of being determined on such grounds.

#### 1.2.7 Significant Harm to Non-human Receptors

The Local Authority can only regard receptors described in Table 1 and 2 of the Statutory Guidance (see Appendix 1 and 2) as being relevant for the purpose of Part 2A. The tables also specify what constitutes *significant harm* and circumstances when the possibility of it occurring is significant.

#### 1.2.8 Significant Pollution of Controlled Waters

The *pollution of controlled waters* is defined by Section 78A (9) of Part 2A as: the entry of any poisonous, noxious, or polluting matter or any solid waste matter into the waters. Part 2A requires the entry of these substances to be likely or continuing. In deciding whether pollution of *controlled waters* is significant the local authority is required to focus on pollution which may be harmful to human health or the quality of the aquatic ecosystem (or terrestrial ecosystems dependant on the latter), or pollution which may damage material property, interfere with amenities, or legitimate uses of the environment. Paragraph 4.38 sets out the types of pollution to controlled waters which are to be considered as significant. The Local Authority is also required to assess whether there is a significant possibility of this occurring. Paragraph 4.46 provides further guidance in terms of the four categories (1-4) which such land could fall under.

#### 1.2.9 Determination

The Council has sole responsibility for determining whether land is *contaminated land*. When making this decision it may rely on advice provided by NRW (in the case of the significant pollution of controlled waters) or an appropriate practitioner appointed for that purpose. In the case of land which would meet the definition of a *special site* the Council must consult with NRW before deciding whether to determine

the land and should take NRW's views into full consideration. The Council may postpone determination if the landowner or some other person undertakes action to deal with the problem and remediate to an appropriate standard voluntarily.

The Council should prepare a written record of any determination which should include a risk summary and a summary of how the relevant requirements of the Guidance have been satisfied.

#### 1.2.10 Remediation

Once land has been determined as contaminated land the *enforcing authority*; that is NRW in the case of *Special Sites* (including RCL) and the Local Authority in every other case must consider how it should be remediated and where appropriate, issue a *remediation notice* requiring this. The Local Authority should not serve such a notice if it is satisfied that appropriate action is being taken without one. In specifying what remediation is required the local authority must consider cost and the reasonableness of the remediation

#### **1.3 Development of the CLIS**

#### 1.3.1 Requirements of a Strategic Approach

The Council is required to take a strategic approach to its inspection duty. Paragraph 2.3 of the Welsh Statutory Guidance states that this should be "rational, ordered and efficient, and reflect local circumstances." There was a requirement for strategies produced in accordance with previous versions of the Guidance to be updated to reflect the 2012 Statutory Guidance and to be reviewed at least every five years.

#### 1.3.2 Overall Approach since 1997

The Pollution Control Team of the Public Health and Protection Service within the Environmental Services Group (now within Community and Children's Services Group) was given the responsibility of preparing and implementing the CLIS. In 1997 the full-time post of Contaminated Land Officer was created to specifically fulfil the Council's statutory obligations. Whilst the regime took some time to come into force in Wales, the requirements that it would place on the Council were anticipated and a great deal of essential preparatory work was carried out in advance.

The Contaminated Land Officer, overseen by the Pollution Control Manager, prepared the first draft CLIS for consultation in 2004. As part of the internal consultation process, the document was available to view on the Local Authority's website and was also presented to Members at Cabinet. In accordance with the Statutory Guidance at that time, external consultation was undertaken with comment being invited on the draft document from a range of consultees (see Appendix 8).

Following consultation, the Council formally adopted and published the CLIS. A copy was sent to the NRW via their Area Contaminated Land Officer.

#### 1.3.3 Internal Team Responsibility

The current departmental structure is set out in Chapter 5. The Senior Contaminated Land Officer (now the Senior Environmental Control Officer) was responsible for drafting the CLIS, with the Pollution Control Manager (now the Environmental Protection & Housing Standards Manager) ensuring that time scales were met and that the broader Council policies were reflected.

The Pollution Control Team is responsible for:

- implementing the CLIS following its adoption and publication,
- providing information to the Development Control Department when land with a potential for contamination to exist is being considered for redevelopment and/or is the subject of a planning application,
- reviewing and appraising site investigation reports and proposed *remediation* schemes,
- considering requests made under the Environmental Information Regulations 2004 and providing relevant information held by the Department.
- receiving and dealing with complaints of land contamination, and
- acting as an initial point of contact for *contaminated land* issues.

#### 1.3.4 Internal Liaison

The process of developing and implementing the CLIS requires liaison with other departments. Due to the far-reaching implications of *contaminated land*, it is expected that at some time several departments within the Council will have cause to obtain or exchange information on the subject. This will occur to varying degrees, but it is anticipated that most of the contact will be with the following:

- Development Control
- Forward Planning
- Corporate Estates
- Countryside
- Legal and Democratic Services
- Development and Regeneration (Area Regeneration Partnerships, Development Planning and Business Support)

#### 1.3.5 Statutory Consultation

Welsh Statutory Guidance required the Council to consult with the NRW and other appropriate public bodies (e.g., CADW, Public Health Wales, Senedd Cymru, and Food Standards Agency) on their draft CLIS. It is also recognised that consultation with these organisations will be important at several stages in the Part 2A process:

- in the process of determining whether particular areas of land are *contaminated* on the basis of *significant contaminant linkages* affecting *receptors* for which they have expertise,
- in providing information on the location of recognised *receptors*,
- conferring any information to the Council on existing land contamination already known to them and,
- in considering what *remediation* is required at specific sites in their remit.

Should further consultation be required with these parties, contact will be made through their official channels of communication.

#### **1.3.6 Consultation with Others**

The Council consulted on a wider scale with members of the public, businesses, and other interested parties. Following the preparation of the draft CLIS, the Local Authority's Press Officer was invited to issue a press statement. This informed all interested parties of the document's availability at key public buildings and on the Local Authority's website (www.rhondda-cynon-taff-gov.uk). Comment on the draft

CLIS was invited prior to its adoption and publication. All comments received on or before 4<sup>th</sup> September 2003 were considered prior to the preparation of the final document.

#### 1.4 Objectives of the CLIS Document

The effective implementation of the *Contaminated Land Regime* in Wales is central to the economic regeneration and environmental improvement of the region. Each Local Authority must play its part in this national programme. To that end Rhondda Cynon Taf County Borough Council aims to:

- meet the statutory requirement to produce a CLIS for its area.
- demonstrate how it meets the requirement for a strategic approach to its inspection duties as outlined in the Welsh Statutory Guidance.
- inform all stakeholders of its intentions in the execution of its statutory duties under Part 2A, and
- provide information to the NRW for its report on contaminated land.
- Continue with a risk based approach.

### **Chapter 2 Characteristics of Rhondda Cynon Taf**

#### 2.1 Rhondda Cynon Taf County Borough Council

Local Government Reorganisation formed Rhondda Cynon Taf County Borough Council on 1<sup>st</sup> April 1996. Covering a total area of approximately 44,000 hectares the Council incorporates the former Cynon Valley Borough Council, Taff Ely Borough Council and Rhondda Borough Council and a substantial part of Mid Glamorgan County Council.

#### 2.2 Geographical Location

The Council is situated in South Wales to the north-west of Cardiff with the M4 running close to its southern boundary. In the north it borders with Bannau Brycheiniog (The Brecon Beacons National Park). Figure 1 shows the Council's geographical relationship with the Welsh Capital, neighbouring towns, and local authorities.

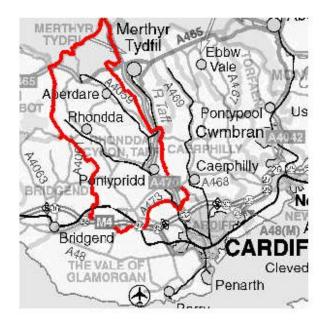


Figure 1, Rhondda Cynon Taf Location Map

#### 2.3 Background Information

The Council's name is taken from the valleys of three rivers, which together with the rivers Ely and Clun dominate the area in both geographical and demographical terms. The topography of the area is influenced greatly by its geology, and this is discussed in more detail in section 2.4. Situated within the South Wales Coalfield the topography is that of an undulating plateau, its strong escarpment broken by deeply incised valleys. The rivers cutting through the escarpment follow courses that bear little relationship to the geological outcrops but were important for the development of the coalfield since coal was worked wherever it outcropped.

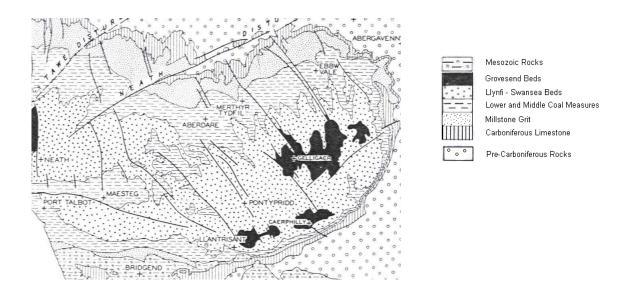
Until the middle of the 17<sup>th</sup> century the Welsh Valleys were unspoilt rural areas, and it was not until the discovery and exploitation of steam coal reserves on a commercial scale in 1860's that intensive development began. Rapid urbanisation began in the late 18<sup>th</sup> and early 19<sup>th</sup> centuries and gave rise to settlements along the valley floors within the coalfield. Space was limited in the valleys and the coal mining communities that developed were built up and heavily congested. Much of the current housing stock consists of the terraced properties constructed at that time. Extensive mining of the coal resources in the area has also produced spoil heaps that spill over fields and mountain slopes. Since they often support little vegetation and are associated with instability and contamination, they present their own challenges when returning this land to beneficial use. In February 2020, the impact of climate change saw increased winter storms with extreme rainfall events. This caused a landslide at a disused coal tip in Tylorstown, Rhondda Cynon Taf. Tip stability does not fall within the Part 2A remit and the Welsh and UK Governments have now set up a joint Coal Tip Safety Taskforce assessing the immediate status of coal tips in Wales. The Welsh Government and its partners are delivering a programme of work which includes inspections and maintenance in conjunction with developing new policy to ensure that communities are safe.

In 2021 the total population was around 237,700 (figures from the Office for National Statistics, 2021). Most of the population is still concentrated in the small towns and villages close to the rivers; industry and employment. In contrast, the upland areas supported little development and are almost entirely given over to farming, especially sheep farming, since the Pennant Sandstones found here weather to form poor thin acidic soils.

#### 2.4 Broad Geological Characteristics

The geology of the South Wales area is summarised in Figure 2. This map shows the area to be dominated by Upper Palaeozoic rocks, i.e., the Devonian and the Carboniferous Series. These rocks have been subjected to the effects of subsequent plate tectonic movements (i.e., movements of the earth's crust) resulting in their structural deformation. An important consequence of this was the formation of the basin of the South Wales Coalfield. The basin is sharply delineated by the differential erosion of hard and soft rocks. Grits and conglomerates of the Upper Old Red Sandstone (ORS) are tough and resistant, and they form the summits in the north of the Borough. Within this escarpment are the parallel ridges formed by the Carboniferous Limestone and Millstone Grit. These dip down below the lower lying

softer shales of the Lower and Middle Coal Measures. These measures in turn dip below the thick Pennant Sandstone, which are resistant to erosion and form a strong escarpment.



## Figure 2. The Geology of the South Wales Coalfield (copyright, British Geological Survey)

#### 2.4.1 The Upper Old Red Sandstone

The older rocks of the Devonian Series can be seen towards the edge of the basin; these belong to and consist mainly of the Quartz Conglomerate Group. These are red and brown sandstones, quartzites and coarse conglomerates as seen in the south of the borough around Miskin.

#### 2.4.2 The Carboniferous Limestones

The Lower Carboniferous (Dinantian) rocks consisting of shales and limestones outcrop at the edges of the coalfield. The limestones have been extensively quarried throughout the area initially as a local building material and for lime and then for iron and steel production and the aggregate industry. Mineralization with Iron (and Lead to a lesser degree) has occurred within the limestone. Iron ores (mainly in the form of Haematite) have been worked around Miskin/Pont-y-clun and Llanharry. Small-scale extraction of these ores occurred in the 1800s as opencast cropworkings and then as underground mine working. Limestone in the region between Pont-y-clun and Risca in Caerphilly County Borough has also been exploited.

Near surface solution features can lead to problems with ground stability especially where percolating surface water washes out softer overlying deposits.

#### 2.4.3 Millstone Grit

The Upper Carboniferous is represented by Millstone Grit (Namurian) and the Coal Measures (Westphalian).

Millstone Grit is a varied and variable group of sandstones and shales. It often exhibits cyclical sedimentation starting with a thin coal seam of no economic importance then marine shales followed by sandy shales and siltstones moving to coarser grained grits and quartz conglomerates. The coarser rocks such as quartzite form hard bands strongly resistant to weathering and give rise to escarpments surrounding the coalfield.

#### 2.4.4 The Coal Measures

In South Wales these were deposited cyclically with the recurrent coal seams formed as thick beds of waterlogged peaty humus in swamps and marshes supporting luxuriant vegetation, through which rivers meandered. The sequence starts with a coal seam formed at or near water level as a thick dense peat followed by a finegrained shale or impure limestone of marine conditions moving to sandstones and grits of non-marine nature. The end of the cycle is marked by fine-grained muds deposited in shallow water, which have been converted to seatearths with rootlet beds by the growth of forests on top of them and then the development of the next coal seam above. This sequence is not always complete and the components are of variable thickness.

The Westphalian is divided into the Lower and Middle Coal Measures and the Upper Coal Measures (Pennant Measures). The coal seams account for less than 2% of the Coal Measures yet they are economically the most important. The coals can be divided into three main types that grade into each other.

- Bituminous Coals, these are soft and friable with a high proportion of volatile matter (20 to 40%). They are good for house, gas, and cooking coals whose carbon contents range from 84- 91%.
- Anthracite, this is a hard stone coal with a metallic lustre yielding a low proportion of volatile matter (3 to 8%) and low hydrogen content. It burns at high temperatures without yellow flame or smoke and is unsuitable for manufacture of coke.
- Steam Coals their composition and characteristics are intermediate between bituminous coals and anthracite.

In South Wales, the coals lower in the sequence at any one locality tend to be more anthracitic with anthracites being rare in the Upper Coal Measures. Also, any one coal seam tends to become more anthracitic as it is followed towards the north, northwest and west. It can be seen therefore that bituminous coals are mainly found in the south and east outcrops, the steam coals in the central part between the Taff and the Neath (particularly in the Rhondda) valleys, and anthracites along the north crop.

Iron ore is found associated with the Coal Measures. At one time the ore formed the principal source of industrial iron in South Wales, but none is now worked. Ironstone was extracted in the Cynon Valley with coal being used as a fuel for the smelting process. As other more economically viable sources of Iron were found, coal production eventually took over and became the main extractive material.

The rocks of the Upper Palaeozoic have been subjected to earth movements resulting in folding and fracturing; the development of structural features governing the outcrop of the rocks and consequently the location of mines and their workforce, the mining communities.

#### 2.4.5 Triassic

These rocks are limited in the County Borough. They were deposited in the south along the escarpment of the Palaeozoic rocks and are better developed in the Vale of Glamorgan. Inland from the Vale of Glamorgan the Trias oversteps the Lower and Middle Coal Measures almost onto the Upper Coal Measures near to Llantrisant. It is formed from the weathering of these older rocks and belongs to the Mercia Mudstone Group.

#### 2.4.6 Recent Deposits.

Approximately 10,000 years ago the area underwent a period of glaciation. Glaciers forming in the upland areas modified the topography to that seen today through erosion and transported material down through channels already existent in the topography, for example the river valleys. This resulted in the deposition of diamicton, sand and gravel over significant tracts of land. Sand, gravel, and alluvium continue to be deposited in the river valleys with hill peat forming on higher ground.

#### 2.5 Hydrogeological Characteristics

Groundwater is utilised throughout Wales ranging from small private abstractions to major industrial and potable supplies. Rocks can be divided into aquifers, which allow the movement of water through them and provide a source of groundwater, and non-aquifers (aquicludes), which do not. Groundwater is an important resource and needs to be protected from pollution and contamination. It is therefore necessary to understand the Geology of the area and an appreciation of the classification of rock types in terms of aquifers and non-aquifers. Overlying soils may afford some protection to groundwater and Groundwater Vulnerability Maps produced by the British Geological Survey assist in the general *risk assessment* process.

#### 2.5.1 Primary Aquifers/Principal Aquifers

The Lower Carboniferous Limestone is the only primary aquifer of the area. It should be noted that the Welsh Statutory Guidance requires that sites causing contamination of groundwater within this stratum should be investigated as a *Special Site*. Although limestones have poor intergranular permeability, movement of water occurs through the well-developed fractures and fissures within the rock. Cavities have developed in the limestone due to preferential solution (karst); some of these extend to the surface (swallow holes) and allow rapid recharge of the groundwater from surface water. Due to factors relating to the development of the fissure system this aquifer is very vulnerable to point source pollution events. Springs often emerge at its boundary with other less permeable rocks and are used together with wells and boreholes as a source of private drinking water.

#### 2.5.2 Secondary Aquifers

Secondary aquifers include a wide range of rock layers or drift deposits with differing permeability. They are subdivided into Secondary A and Secondary B. The former

can support water supplies at a local level and can contribute to the base flow of rivers. These were formerly classed as minor aquifers.

Secondary B aquifers are lower permeability horizons which may store limited amounts of groundwater due to fissures, thin permeable horizons, and weathering. These were generally the water bearing parts of non-aquifers.

- The Old Red Sandstone is a secondary aquifer. The sandstones are generally hard with groundwater movement occurring through fissures. Vertical flow is limited by the presence of clays (marls) within the sequence that leads to springs forming.
- Millstone Grit exhibits cycles of deposition from coals, shale, sandstones, to seatearths. Water movement in the well-cemented sandstones is through fissures. Springs occur within the Millstone Grit at junctions between the sandstones and underlying less permeable shales. Where Millstone Grit overlies Carboniferous Limestone, it can act as a source for its groundwater recharge.
- Carboniferous Coal Measures are also secondary aquifers and are used for water resource purposes. Movement is through the system of fissures and the network of mining features. Permeable sandstone horizons also facilitate water movement whilst shales tend to impede it.
- Lower and Middle Coal Measures consist mainly of shales with minor sandstones and coal seams.
- Upper Coal Measures (Pennant) have hard dense sandstone horizons that contain large amounts of groundwater due to their well-developed jointing and fissure system, separated by shales, mudstones and seatearths with much lower permeability.
- Recent Sands and Gravels including glacial, fluvio-glacial, plateau gravels and river terrace deposits are usually superficial and variable in nature. Due to their unconsolidated nature, they have high intergranular permeability and can be important for supplying local requirements. Silt and clay are also found within these deposits and these act as non-aquifers preventing the flow of groundwater. The waters contained within are often in hydraulic continuity with surface waters and their proximity to the surface make them very vulnerable to pollution.

#### 2.5.3 Unproductive Strata

These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow.

#### 2.6 History of Economic Development

The raw materials for the industrialisation of the area were the iron, coal, limestone deposits and a plentiful water supply. Development occurred close to these resources and so a link is seen with the geology of the area.

#### 2.6.1 Iron

The proximity of iron ore, coal, limestone, and a plentiful water supply was exploited by ironmasters in the latter half of the 18<sup>th</sup> century. Ironworks processing the ironstone clay bands within the coal measures were developed in Hirwaun and Aberdare. The resulting pig iron was transporting from the valleys to the coastal ports via the canal

system before railways took over. This shift coincided with a reduction in the amount of iron and an increase in the amount of coal being exported from the valleys.

South Wales iron production reached its height in 1857 and by the 1860's, production had tailed-off as the demand for steel increased. The limited resources of some of the ironworks prevented their conversion to steel production and led to their eventual closure. Hirwaun closed in 1859 and other local ironworks soon followed. The near-surface and shallow local ironstone reserves were depleted and it was uneconomical to exploit the deeper reserves. Cheaper European ores having higher iron content were more suited to the new production methods and were used in preference. Whilst local ore extraction and iron production ceased the importance of the coal reserves was realised and coal production increased as demand from the domestic, industrial and transport sector increased.

Iron ore of a different type was extracted at the Llanharry site in the form of Haematite and limonite and continued to supply steel works in Cardiff.

#### 2.6.2 Coal

Coal as a source of power and as a raw material for other industries was a major factor in the economic development of the region. Initially coal was worked in patches where it lay close to the surface for the process of Iron production (in the north). Mining techniques improved and the deeper steam coals situated in the centre of the coalfield were exploited. The demand for these grew worldwide and huge quantities were moved by rail from the Valleys to the docks. The output of coal from South Wales quadrupled between 1860 and 1900 whilst the total UK output less than trebled showing the importance of the mining effort here.

In the latter half of the 19<sup>th</sup> century industrial communities quickly developed around the newly opened levels and pits such as Maerdy, Ferndale, Tylorstown, Treherbert, Treorchy and Tonypandy of the Rhondda. This is the largest and best-known mining community and saw an increase in population from less than 1000 in 1851 to 152,000 in 1911. Coal was mined in all of the valleys, and although perhaps not as large, the mining communities in the Cynon and Taff valleys also resulted in the creation of many villages and towns.

More recently, several opencast coal mines have been commercially operated within the borough.

#### 2.6.3 Coke works and Coal Gasification Plants

The destructive distillation of coal to produce coke, water-soluble components (ammoniacal liquor) and tars, occurred at coke works throughout the area. Coke was used as a fuel for the steam engines of the railways and the ironwork furnaces; often it was produced close to the pits where the coal was extracted. Coal Gasification plants used to produce town gas are found within the County Borough. These sites are commonly associated with soil and groundwater contamination. British Gas and their successors have implemented a rolling programme for their investigation and *remediation*. It should be noted that local authorities and private individuals also acquired some gas works sites for redevelopment.

#### 2.6.4 Brick Making

As already discussed, clay is closely associated with coal deposits. Some of the local clays had the properties of fire clays and were used to make refractory bricks suitable for use in furnaces and flues. In addition, they were used for colliery walling and house building. In 1854 it was noted that there were five brick manufacturers between Pontypridd and Dinas. Brickworks also occurred as appendages to collieries in other areas.

#### 2.6.5 Special Areas

Periods of high unemployment followed the closure of coal mines, especially in the 1930's. Efforts were made to attract new businesses to the area and provide the redundant workforce with employment close to their homes. Under the Special Areas Act of 1934 the South Wales Coalfield was made a Special Area and came under the control of a District Commissioner who undertook the task of improving social and economic conditions. The Treforest Industrial Estate developed in 1936 was the first of its kind in Wales and was equipped to meet the needs of modern industrial developments. Factory buildings were also constructed and were occupied for example by zip and clothing manufacturers.

#### 2.6.6 Development Areas

Under the Distribution of Industries Act 1945, certain areas (mostly incorporating the Special Areas) were scheduled as Development Areas with their industrial development passing to the Board of Trade. This was responsible for the construction of factories throughout the area attracting light industry involved in the manufacture of goods ranging from springs, toys, and kitchen utensils to paper, rubber, paint, clothes, and furniture.

#### 2.6.7 Current Industrial Activity

A wide range of businesses currently operate in the Borough, including Regulated Facilities operating Part A1 IPPC prescribed activities, which are subject to requiring an Environmental Permit pursuant to Schedule 1 of the Environmental Permitting (England and Wales) Regulations 2016. Under the IPPC (Integrated Pollution Prevention and Control) regime, which encompasses emissions to air, land and water, Part A1 activities are regulated by NRW and Part A2 activities (none currently within RCT) by the local Authority. NRW hold a public register outlining the sites currently subject to Environmental Permits under their control. The register can be seen at: <u>https://naturalresources.wales/permits-and-permissions/check-for-apermit-licence-or-exemption/?lang=en</u>

There are several Part B Regulated Facilities which also require an Environmental Permit and are subject to Local Air Pollution Control (LAPC) and regulated by the Local Authority. These consist of a range of process types, which can be found on the Council's Public Register held under the Environmental Permitting (England and Wales) Regulations 2016. The register's index is available on line at:- <u>https://www.rctcbc.gov.uk/EN/Business/LicencesandPermits/Pollutionrelatedlice nces/EnvironmentalPermitting.aspx</u>

#### 2.7 **Protected Locations**

Part of Bannau Brycheiniog (the Brecon Beacons National Park) lies within the County Borough. This was established under the National Parks and Access to Countryside Act 1949. Within (or partially within) the Borough there are currently: -

- twenty Sites of Special Scientific Interest (SSSI), and
- Four Special Areas of Conservation (SAC)

These have been identified within the Statutory Guidance as *receptors*. An up-todate list of these protected areas is maintained by NRW.

(<u>https://naturalresources.wales/guidance-and-advice/environmental-topics/wildlife-and-biodiversity/protected-areas-of-land-and-seas/find-protected-areas-of-land-and-sea/?lang=en</u>)

At a local level there are 183 Sites of Important Nature Conservation (SINC) of varying size which have been identified and recorded in the LDP (2006 - 2021). These include wetlands, quarries, woods, marshes, woodlands, lakes, and local nature reserves.

#### 2.8 Key Property Types

The 2006 - 2021 LDP records that there are 86 Scheduled Ancient Monuments. These include a Roman Camp, round barrows, round cairns, ring cairns, earthworks, a ventilation furnace, and iron tram-road bridge. There are 361 listed buildings and 16 conservation areas.

#### 2.9 Key Water Resource/Protection Issues

Welsh Water currently supplies water to most properties within the area. However, 195 private water supplies are known to exist, supplying commercial properties, groups of domestic properties and single dwellings. The Public Health and Protection Department risk assesses and monitors these supplies as necessary to ensure that they comply with bacteriological and chemical standards set for drinking water in the Private Water Supplies (Wales) Regulations 2016. The exact source of water for all these supplies is not currently known but it is recognised that to protect the user, it will be important to obtain this information whenever possible in the future.

Other water protection issues in the area include one source protection zones completely within the county (Penderyn) and the Schwyll source at Pencoed which also lies partially within Bridgend County Borough Council. (<u>DataMapWales</u> (gov.wales)

Groundwater vulnerability maps for the area show that there is one primary aquifer, as detailed in the Welsh Statutory Guidance. This is the Lower Carboniferous Limestone and land potentially resulting in the contamination of water contained within this aquifer would require investigation as a potential *Special Site*.

There are numerous streams and several rivers flowing through the county borough, all are recognised *receptors* under Part 2A. The Rhondda Fawr and Rhondda Fach

rivers in the Rhondda Valleys coalesce at Porth before continuing to Pontypridd where they join the River Taff. At Abercynon, upstream of their confluence, the River Taff is joined by the River Cynon as it leaves the Cynon Valley. After Pontypridd, the River Taff continues past Treforest Industrial Estate and Taff's Well before moving into Cardiff and Cardiff Bay. In the south of the borough there are two rivers; the River Ely which flows down past Tonyrefail towards Talbot Green and its confluence with the River Clun. From Pont-y-clun the river moves onwards through Cardiff to Cardiff Bay.

Several reservoirs are found within the borough. Cantref and Llwyn-on (the larger reservoirs) are situated in the north along the Taff Fawr within Bannau Brycheiniog (the Brecon Beacons National Park). These are owned by Dwr Cymru (Welsh Water) and utilised for drinking water supplies. There are other smaller reservoirs including Penderyn, Nant-Moel, Clydach, Lluest wen and Perthcelyn.

#### 2.10 Remediation to Date

Following the Aberfan disaster in 1966, the Government set up a special unit at the Welsh Office to lead, encourage and co-ordinate a programme of reclamation to clear away derelict, unsightly, or neglected land and restore it to productive and beneficial use. The functions of the Welsh Office were subsequently made the responsibility of the Welsh Development Agency (WDA). Councils identified areas that were so damaged by past industrial and other activity that they were incapable of beneficial use without treatment. Applications were then be made to the WDA for improvement grants under the Welsh Development Agency Act 1975. Where schemes were envisaged to increase the open market value of the land upon completion, the WDA required Councils to hold the freehold interest. This led to the Council's acquisition of sites requiring *remediation* and their involvement in its *remediation* through the Land Reclamation Team.

WDA grants did not cover natural dereliction or works covered by enforceable restoration conditions or statutory requirements (including *remediation notices*). Work has been undertaken at former colliery sites and areas of associated spoil. The latter has often been reprofiled or removed, and occasionally, when economically viable, reworking to remove the coal fraction. As discussed in Section 2.3, a recent landslide involving a colliery spoil tip at Tylorstown highlighted tip stability as a safety concern. A Coal Tip Safety Taskforce has been set up in response to ensure that such tips are regularly inspected and maintained to ensure that communities remain safe. The Welsh Government has also funded trials to identify technologies which could contribute to the safe and effective management of disused tips.

Historically a number of key strategic sites have been investigated and remediated by the Council in partnership with the WDA and other stakeholders, e.g., Coed Ely Colliery and Coking Works, and the Phurnacite works in Abercymboi (removal of two tar tips).

The remediation of many other sites has been secured through the planning process. Developers of land known to have past associations with potentially contaminating uses have been required to undertake site investigations by conditions of their planning consent. The past land use database developed by the Public Health and Protection Division has proved invaluable at identifying such land at the consultation stage. Investigations are carried out prior to development and seek to characterise the exact nature of any potential *pollutant linkages* and ensure that they are appropriately *remediated*.

Since 2010, the Welsh Government has not made any funding available to local authorities under the Capital Grants Scheme. As a result of this and ongoing budget cuts, local authorities do not have the resources available to undertake investigations under Part 2A of the Environmental Protection Act. It is envisaged that most potentially contaminated land sites will primarily be dealt with through the planning regime as and when sites are redeveloped.

In 2023, the Welsh Local Government Association and NRW updated and published the Welsh Land Contamination Working Group's guidance document 'Development of Land Affected by Contamination: A guide for Developers, (rctcbc.gov.uk). This was first published in 2006 and is a reference document for developers and their advisors/agents who might be involved in assessing or managing land contamination in Wales.

The UK Government also published guidance in 2020; Land Contamination Risk Management, or LCRM, which is aimed at a wider audience including landowners, regulators, developers, planners, an 'appropriate person' under Part 2A, consultants, professional advisors such as a financial service provider and remediation contractors. The LCRM Guides are available as a series of online documents (Land contamination risk management (LCRM) - GOV.UK (www.gov.uk)

- 1. LCRM: Before you start.
- 2. LCRM: Risk assessment.
- 3. LCRM: Options appraisal.
- 4. LCRM: Remediation and verification.

#### 2.11 Known Information on Contamination

In March 2005, following a number of site investigations jointly commissioned by the Council and Environment Agency Wales (now NRW), Brofiscin Quarry in Groesfaen was designated as a *Special Site* due to the pollution of controlled waters. Regulation of the site then passed to Environment Agency Wales (now NRW) and following extensive investigations and consultations, site remediation works were completed in June 2013. As a result of the investigations and works, the Council does not consider that any further action is required in relation to Brofiscin Quarry currently.

#### 2.12 Sustainable Remediation

The UK Government supports a sustainable approach to land contamination risk management. In their LCRM guidance they advise that: -

The industry-led Sustainable Remediation Forum UK (SuRF-UK) has produced a framework for assessing the sustainability of soil and groundwater remediation. (<u>Framework Document (claire.co.uk)</u>. This framework complements LCRM's risk-

based approach and its use is signposted in the guidance. The framework document sets out why sustainability issues associated with remediation need to be factored in from the start of a project through to completion. The framework and supporting materials can be used to help with:

- identifying at an early stage how to embed sustainability at a number of key points in a site's redevelopment or risk management process.
- making sure the process balances the environmental, social, and economic impacts and generates maximum overall benefit.
- factoring in climate change to ensure site works and any long-term remediation is sustainably robust.

#### 2.13 Remediation Schemes and Climate Change

Remediation can have adverse effects on climate change if it is not done correctly. If a poor remediation design and implementation plan is selected, the activities may cause greater adverse effect than the contamination it aims to address.

Climate change and extreme weather events might also have an adverse effect on the durability of a remediation scheme.

LCRM guidance sets out the remediation needs to:

- manage the unacceptable risks in a safe and timely manner.
- aim to maximise the overall environmental, social, and economic benefits across the whole supply chain.
- be able to withstand a changing climate and extreme weather events.

### Chapter 3 The Council Strategy: Overall Aims

Chapter 1, section 1.1 outlines the Council's vision and shows how the Service Objectives of the Public Health and Protection Department support the achievement of those overarching goals.

Chapter 1, section 1.4 sets out the statutory aims of the CLIS. This chapter sets out the specific aims of the Council when dealing with contaminated land issues. The Council aims to:

- 1. To protect human health and well being
- 2. To encourage the redevelopment of damaged land/ reuse of brownfield land
- 3. To encourage voluntary remediation
- 4. To communicate and work effectively with other organisations to protect other *receptors.*
- 5. To engage with local communities to find out what their priorities are.
- 6. To ensure compliance with and enforcement of the legislation and statutory guidance

Those parties within the Local Authority considered to have an interface with land contamination issues were consulted on the draft CLIS affording them the opportunity to comment on the way it impacts on other strategic initiatives or work programmes. The review and consultation processes will be used to ensure that the CLIS continues to integrate with other new and emerging corporate strategies.

*Contaminated land* issues are often complex and dealing with potentially contaminated sites is difficult especially as information is often limited or unavailable. Decisions may have to be made before full details are available and it is anticipated that the decision-making process will be aided by having regard for the Council's priorities.

#### 3.1 The Aims of the CLIS

Protecting the health and well-being of the community is a high priority for the Council. The aim of the CLIS will therefore be to identify those areas posing a significant risk of significant harm to human health and to remove those risks whilst working under the auspices of the statutory guidance.

The Council recognises Part 2A also covers other receptors; in particular *Controlled Waters*, and it aims to identify risks posed to these through the general inspection process.

The Area Regeneration Partnerships were specifically invited to comment on the draft CLIS in 2006 so that the views of the community were given proper consideration and weight in the prioritisation process.

#### 3.2 Objectives and Milestones

The Council set the following general objectives to assist in achieving the stated aims of the CLIS.

- 1. To complete the historical map search of the County Borough and the preliminary inspection of records currently available to enable the identification of all potential sources of contamination.
- 2. To liaise with other departments within the Council and other relevant organisations to gain awareness of the occurrence and nature of Part 2A *receptors* within the Borough.
- 3. To prioritise sites for more detailed inspection to ensure that the most urgent can be dealt with first.
- 4. To undertake more detailed inspections (primarily desktop studies) in the Council's assigned order of priority when funds become available.
- 5. Establish and maintain contact with other relevant organisations via officers of the Pollution Control Team.

# Chapter 4 Local Authority Priority Actions and Timescale.

The overall aim of this chapter is to describe the specific approach that the Council has taken to date in fulfilling its statutory obligations to prepare the CLIS. It also continues with proposals for future actions, i.e., the inspection of its area to identify *contaminated land*.

#### 4.1 **Priority Actions**

#### 4.1.1 Appointment of Contaminated Land Officer 1997

After identifying its future obligations under the proposed *Contaminated Land Regime*, the Council recruited a new Contaminated Land Officer in 1997 who was to prepare and implement the Council's CLIS.

#### 4.1.2 Purchase of a Geographical Information System (GIS), August 1997

The Council had chosen GGP as the corporate geographical information system. This was used to compile a computer-based record of potentially contaminated areas of land identified from the historical map search and study of available records.

#### 4.1.3 Preliminary Desktop Study commenced August 1997.

Whilst awaiting the implementation of the new *Contaminated Land Regime* the Contaminated Land Officer began a desktop study of the County Borough. The Department of the Environment's report 'Pilot Survey of Potentially Contaminated Land in Cheshire - A Methodology for Identifying Potentially Contaminated Land Sites' July 1990) was consulted to establish an approach to this work. Concentrating on land uses with a known potential to introduce contamination into sites, Ordnance Survey (OS) Maps from the 1800's onwards were scrutinised to identify such sites. All quarries and areas of infilling have been included on the database along with sites marked as 'works'. It is appreciated that this method may result in false positive results and may miss sites since land uses may have occurred without ever being recorded on a map. Public consultation may help to identify such gaps in the database. A search of the following collated documents was also undertaken at this stage:

- The Survey of Contaminated Land in Wales, Welsh Office 1988
- Environment Agency Draft List of Landfill Sites in Rhondda Cynon Taf, 1997
- Taff Ely Landfill Site Survey, 1990
- Cynon Valley Borough Council Derelict Land and Land Reclamation Report, 1985
- Taff Ely Borough Council, Register of Land which may be Contaminated, Edwards and Rice Ltd, March 1992

This work concentrated on the most populated areas of the Borough first and resulted in over 2500 potentially contaminated land sites being recorded on GGP. It was intended to complete the search by looking at the remaining more rural areas. The GGP system was also used to record the locations of other *receptors*. These can be overlain to assist in the identification of land that has both potential sources of contamination and *receptors*.

#### 4.1.4 Preparation of the Draft CLIS, July 2001 - May 2002

The draft CLIS was prepared in line with the technical advice issued by the DETR to guide local authorities in this task.

#### 4.1.5 Consultation Period, August - September 2003

A two-week consultation period provided statutory and non-statutory consultees with opportunity to comment on the draft CLIS.

#### 4.1.6 Preparation of the Final CLIS, September 2003

All information and comments generated through consultation were given due consideration as the draft CLIS was modified and finalised.

#### 4.1.7 Adoption of the CLIS, January 2004

The final version of the CLIS was presented to Cabinet and adopted by the Council.

#### 4.1.8 Publication of the CLIS, January 2004

The adopted CLIS was published and submitted to the Environment Agency (now NRW) via their Area Contaminated Land Officer. Copies were made available for the public and other interested parties to view at local libraries and by prior appointment at the offices of the Public Health and Protection Department and on the Council's website (www.rhonda-cynon-taff.gov.uk).

#### 4.1.9 Dealing with Urgent Sites, May 2000 - ongoing

At the time of original publication, work was being undertaken by the Environment Agency (now NRW) in conjunction with the Council to investigate and characterise a potential *Special Site* using funding made available by the Welsh Government. Whilst this site was not considered to be one requiring urgent action it was selected for investigation based on the available information and its potential to be a *Special Site*. The work commenced prior to the introduction of the Contaminated Land Regime in Wales and culminated in the designation of Brofiscin Quarry, Groesfaen as a Special Site in March 2005. Remediation of the significant pollution linkages was completed in June 2013 by the Regulator (NRW).

If the Council identifies land which it considers requires urgent action (and following consultation with other statutory bodies if necessary), it may decide to prioritise the site for further action subject to identifying suitable funding.

#### 4.1.10 Preliminary Desktop Study, September 2003-August 2004

The preliminary desktop study identified some 2,500 sites as containing potential sources of contamination and therefore requiring a more detailed inspection to establish whether significant contaminant linkages exist.

From overlays developed on our GIS a strong correlation was seen between the location of potentially contaminating past land uses and potential *receptors* such as humans and *controlled waters*. This relationship has been discussed in Chapter 2. Since the first publication of the CLIS in January 2004, two additional contaminated land officers have been appointed and the preliminary desktop study completed. Around 4,600 sites with a potential contaminating use were identified. This

information is now stored on a purpose-built data management system (GeoEnviron), which was purchased and installed in February 2005.

#### 4.1.11 Prioritisation August 2004 – ongoing.

The Council is required to ensure that the most seriously contaminated sites are identified and dealt with first. It is recognised that the different types of land use considered in the preliminary desktop study do not have an equal potential to generate harmful contaminants. Furthermore, they do not have an equal potential to result in significant harm or the pollution of controlled waters. Appendix 3 showing a risk-based classification of land illustrates these differences. With approximately 4,600 potentially contaminated sites identified it was necessary to rank and prioritise them for further investigation taking this into account and considering the proximity of potential receptors. More importance was placed on sites with potential pollutant linkages involving human health since the Council has set the protection of this as one of its main aims (see Chapter 3). Using information relating to current and past uses a stage 1 prioritisation was commenced using GeoEnviron. This resulted in a large number of high-ranking sites and so the risk assessment was further refined considering the proximity of controlled waters (stage 1+ prioritisation). The full protocol is contained within Appendix 4. The prioritisation exercise is seen as a piece of ongoing work with further refinement possible over the coming years. For this reason, Public Health & Protection will not be able to discuss the actual ranking of individual sites but would direct enquirers to Appendix 4 which should be consulted to provide a broad indication of the priority afforded to different types of sites.

#### 4.1.12 Detailed Inspection of Sites

Sites will be inspected in the order of priority established by the prioritisation process. Inspections will be undertaken to obtain sufficient information to establish whether significant contaminant linkages are likely to exist and whether intrusive investigations are warranted. This information would be required for a determination to be made according to the Statutory Guidance issued by the Welsh Government this inspection may take the form of: -

- The collation and assessment of documentary information
- Assessment of information from other bodies
- A visit to the area for the purpose of visual inspection and in some cases limited sampling or,
- Intrusive investigation of the land. Where intrusive investigations of potential Special Sites (including RCL) are required the Council will seek to make the necessary arrangements with NRW.

Since 2010, Welsh Government has no longer provided a capital funding programme for the investigation and / or remediation of contaminated land. In addition to this, the Council has no specific capital budget for the investigation and / or remediation of contaminated land. As a result, available resources are focussed on providing input into the Development Control process. Where necessary planning conditions are requested to ensure that investigations and remediation are undertaken to ensure that the land is fit for its proposed use. In addition, Officers provide comments on submissions received through the planning process or requests for pre-planning advice and contribute to the process of preparing the Revised Local Development Plan. The Council will keep this position under review and modify it should funds become available from Welsh Government or other funding streams in the future.

#### 4.1.13 Local Authority Owned Land.

Corporate Estates maintains records of land owned by the Council. This land has a variety of uses e.g., schools, leisure, industrial estates, allotments, housing, and civic buildings. It is possible that some of this land has the potential to be in a contaminated state, e.g. derelict industrial land acquired by the Council with a view to reclaiming it and returning it to the beneficial use of the community. The Council may have leased *contaminated land* or been responsible for the potential contamination but is no longer the occupant or landowner. The Cabinet will be advised as soon as possible of any *contaminated land* where the Council is potentially liable for all or part of the cost of *remediation*. All land will be treated in the same manner under Part 2A irrespective of the fact that the Council may be an *appropriate person* and therefore liable for some or all the costs of *remediation*.

#### 4.1.14 Local Development Plan Land/Revised Local Development Plan Land

A single Local Development Plan (LDP) was adopted in March 2011 and runs up to 2021 . Prior to adoption, there was a period of consultation providing the Contaminated Land Officers with the opportunity for technical input.

A Revised Local Development Plan (2022 – 2037) is now in preparation; the process began formally in April 2022. The current LDP will remain in force until the Revised Local Development Plan (RLDP) is adopted.

The intended use of land and the likelihood of its development are relevant factors in the contaminated land inspection process. Consideration of sites earmarked for development in the RLDP is therefore important and the Pollution Control Team will engage fully with the consultation process and bring potential contaminated land issues to the attention of those preparing the plan at the earliest opportunity.

#### 4.1.15 Controlled Waters, Protected Areas of the Environment and Buildings

The general process of investigation will bring to light potential threats to other Part 2A receptors. Overlays marking the positions of these have been incorporated into the GeoEnviron database to highlight their proximity to areas of potentially *contaminated land*. It is recognised that these *receptors* are important, but the Council's priority is to protect human health. However, those sites with both potential human health and controlled water receptors have been identified and prioritised for inspection above those with only the former (See Prioritisation Protocol, Appendix 4).

#### 4.1.16 Inspection of Radioactive Contaminated Land (RCL), 2009 – 2028

For the identification of RCL the Council's duty is satisfied if it inspects areas of land where it has reasonable grounds for believing that land to be contaminated by virtue of radioactivity. The Council must be aware of relevant information relating to the three situations specified in Statutory Guidance. The Council will therefore consider these situations during its general inspection process (section 4.1.12) and act in accordance with statutory guidance issued if any detailed inspections are required.

## Chapter 5 Procedures

## 5.1 Internal Arrangements

Contaminated Land falls within the remit of the Environmental Protection & Housing Standards Team, Public Health and Protection (Community and Children's Services Group).

The lead officer for Part 2A of the Environmental Protection Act 1990 is the Senior Environmental Control Officer who reports to the Environmental Protection & Housing Standards Manager. The Pollution Control Team implements the CLIS on a day-to-day basis.

## 5.2 Local Authority Land Interests

It is possible that the Council itself may be identified as an *appropriate person* by virtue of its current or former ownership or occupation for example. As previously stated, it is the intention to treat all land in the same open and transparent manner irrespective of who the *appropriate persons* are.

## 5.3 Information Collection

Various sources of information were consulted in the process of identifying potential *sources* of contamination and potential *receptors*. Table 3 details some of the potential sources that have been consulted to date. This initial list may be expanded on as other sources of information are identified. The GIS has been used to correlate information of potential sources with *receptors* and help to identify potential *pathways*.

Source of	Information	Use
Information		
Historical Ordnance Survey Maps	Paper copies of Ordnance Survey Maps held by the Public Health and Protection Department and at local libraries, 1870's onwards.	To identify potential sources of contamination
Geological Survey Maps	Paper copies of solid and drift maps, scale 1:50,000, held by this department.	To identify potential sources, pathways and receptors
Hydrogeologic -al Maps	Groundwater Vulnerability Maps produced by the National Rivers Authority	To identify potential <i>receptors</i> and <i>pathways</i>
Groundwater Source Protection Zones (SPZ)	Areas of groundwater that receive special protection by the Environment Agency as identified on their website. <u>www.environment-</u> <u>agency.gov.uk</u> for use on the <i>GIS</i> .	To identify potential <i>receptors</i> (controlled waters) and <i>pathways</i>

Table 3. Sources of Information

Environmental Health Records	The Council maintains records of complaints and investigations	To assist in the identification of <i>contaminated land</i> . To identify potential sources.
Planning Records	The Local Planning Authority holds records of permission granted for development in the area, including ground conditions surveys	To identify potential sources and <i>receptors</i> . To consider whether <i>remediation</i> carried out is appropriate.
Local Plans	These reflect future land use	To identify potential <i>receptors</i> and sources
LDP	Statement of future proposed land use	To identify potential <i>receptors</i> and sources
Aerial Photographs	Aerial photograph coverage of the Borough is available from 1945 onwards, photographs held at the National Assembly for Wales.	To assist in the investigation of sites
Private Water Supplies	A GIS overlay has been set up to record all private water supplies known to the Council	To identify potential <i>pathways</i> and <i>receptors</i>
Part A1Installations	Details of authorisations required for polluting industrial processes available from NRW's website.	To identify potential sources
Part B & A2 Installations	A record of polluting industrial processes under Council control is maintained within the Industrial section and has been incorporated into our GIS	To identify potential sources
Waste Management Licences/Waste Environmental Permits	NRW's public register of sites permitted for waste activities.	To identify potential sources
Ancient Monuments Listed Buildings	The Council maintains a GIS overlay of these sites with information supplied by Cadw	To identify potential <i>receptors</i>
SSSI and other protected sites	The Council maintains a GIS overlay of these sites with information supplied by NRW	To identify potential receptors
Public Rights of Way	The Council maintains an overlay on the GIS system	To identify potential <i>receptors</i> when considering certain areas of land
Derelict Land	Plans of derelict land destined for reclamation are prepared by the Council	To identify potential <i>receptors</i> and sources

## 5.4 Complaints and Voluntary Information

The publication of the CLIS was publicised and made available in libraries and on the Council's web site. Members of the public, community groups and other Council departments were encouraged to contact the Pollution Control Team to make complaints about land, which is affecting them or their property, provide voluntary information or bring certain land to the Council's attention.

#### 5.4.1 Complaints

Complaints about land contamination will be handled in the same way as complaints about other Environmental Health issues. Where complaints relate to pollution of controlled waters, these would normally be referred to NRW. Complainants may expect:

- their complaint to be recorded and logged on CIVICA, Public Health and Protection's computerised complaint handling system,
- to be contacted by a Pollution Control Officer or an Environmental Health Officer within 7 days to discuss their complaint.
- to be kept informed as the investigation progresses and to be informed of the outcome.

Whilst the Pollution Control Team aims to resolve complaints quickly and efficiently, complainants should appreciate that any action under Part 2A is subject to the requirements of the current statutory guidance. This places certain obligations, of a procedural nature, on the Council, which will inevitably slow this process down:

- Investigation will have to demonstrate a *significant contaminant linkage* before land can be determined as contaminated.
- The Council can not undertake intrusive investigations using statutory powers of entry if relevant persons offer to provide that information within reasonable timescales and then do so.
- A minimum period of three months must elapse between that determination being made and a *remediation notice* being served (except where urgent *remediation* is required).
- The Council must make every reasonable effort to identify the original polluter or a *Class A person*.

The Council may also postpone determination of contaminated land if a relevant person undertakes to deal with the problem without determination.

Experience has shown that each step in the process can involve considerable work and costs, as well as taking significant periods of time to complete.

#### 5.4.2 Voluntary Information

Information supplied by a person or organisation relating to contaminated land that is not directly affecting either their own health, the health of their family or their property will not be regarded as a complaint. The information may be recorded and acted upon at the discretion of the Council. It is recognised that such information could be a valuable resource but would require careful validation.

#### 5.4.3 Confidentiality

All complainants will be asked to supply their names, addresses and contact details. Their identity will remain confidential and would only be revealed if required by a Court of Law.

#### 5.4.4 Anonymous Information

As a matter of policy, Public Health and Protection does not normally undertake investigations based on anonymously supplied information. However, this will not apply where the information suggests that there may be a significant risk to public health or controlled water.

#### **5.4.5 Environmental Information Requests**

Request for details of environmental information held by the Council can be made in several ways (details are available on the Council's website). Such requests would normally be processed in accordance with the Environmental Information Regulations 2004 and may be subject to a fee which will be identified in advance of any searches being undertaken.

#### 5.5 Information Evaluations and Risk Assessment

The Council is required to carry out a scientific and technical assessment of the risks arising from *pollutant linkages* according to relevant, appropriate, authoritative and scientifically based guidance on such risk assessments. Statutory guidance states that to simplify such *risk assessment*, authoritative and scientifically based guideline values may be used. Therefore, information on substances in, on or under the land will be risk assessed against current government guideline values (if available) to determine whether *harm* is significant, or there is significant possibility of *significant harm* arising from contaminants observed. As scientific research expands our understanding of contamination it may be necessary to revisit sites and reassess our original findings.

#### 5.5.1 The Contaminated Land Exposure Assessment Model (CLEA)

ICRCL 59/83 (2<sup>nd</sup> Edition, July 1987) - Guidance on the Assessment and Redevelopment of Contaminated Land, provided a set of trigger and action levels for a limited range of commonly occurring contaminants derived for different land uses. However, these trigger levels were withdrawn by DEFRA in December 2002 because they unsuitable for assessing the "significant possibility of significant harm to human health" required by the new contaminated land regime under Part 2A of the Environmental Protection Act 1990.

The Department for the Environment, Food and Rural Affairs (DEFRA) and the Environment Agency subsequently launched CLEA in 2003, to assess the chronic risks posed to human health by land contamination. The Environment Agency had a rolling programme looking at 55 contaminants but UK Soil Guideline Values (SGVs) were subsequently only published for a limited number of contaminants including arsenic, cadmium, chromium, inorganic mercury, nickel, selenium, lead, phenol, ethylbenzene and toluene. Tox reports were also published for a number of other contaminants. Although these identified the necessary health data SGVs were never derived. The model considered ten *pathways* for exposure and derived guideline values for three land uses: residential (with and without plant uptake), allotments, and commercial/industrial. SGVs were intended to inform judgements about the need for intervention to prevent unacceptable risks. Observed soil concentrations can be compared to SGVs where it is considered that the assumptions underlying the derivation of the guideline values are relevant to the circumstances. The CLEA

package consisted of the main reports CL7-10, the CLEA 2002 software and the Soil Guide Values for individual substances. CLEA 2002 was subsequently replaced by CLEA UK. The whole package (including the CLR 7-10 documents and previously published SGVs) was then withdrawn by DEFRA in 2008 and new software (CLEA 1.03) released as a beta version for use by risk assessment professionals. The current version of CLEA is 1.071 and the EA has published two updated reports "Human health toxicological assessment of contaminants in soil" and "Updated technical background to the CLEA model". The revised guidance provides a framework that can be used to consider substances for which no UK Generic Assessment Criteria (GAC) are available.

In 2012 the revised Contaminated Land Statutory Guidance introduced a new four category system for classifying land as contaminated under Part 2A of the Environmental Protection Act 1990. This category system ranged from Category 4, where the level of risk posed to human health or the environment is acceptably low, to Category 1, where the level of risk is clearly unacceptable.

To help regulators determine whether land was suitable for use and definitely not contaminated, a project research group was established to define the screening level for Category 4 utilising the CLEA software. This project was completed and a methodology for developing Category 4 Screening Levels (C4SLs) published along with C4SLs for; cadmium, benzo(a)pyrene, benzene, arsenic, lead and chromium VI. Phase 2 of the project began in 2018 and will develop a total of 19 C4SL which will be published on the CL:AIRE website.

Where a contaminant has been identified for which UK GAC are not currently available, then it may be possible to derive one using the current CLEA software.

#### 5.5.2 Radioactive Contaminated Land Evaluation and Assessment (RCLEA) Model

RCLEA is a Defra model which enables screening calculations to be performed to assess whether radionuclide concentrations are capable of leading to radiation doses of concern.

#### 5.5.3 Other Assessment Criteria

In addition to employing specialist knowledge and CLEA to derive GAC for contaminants of concern, Government guidance (LCRM.gov.uk) advises that risk assessors may consider using other appropriate GAC. These could include commercially available GAC which have been derived used CLEA, e.g., S4UL. The risk assessor must first ensure that the GAC are relevant to the site concerned. Various authoritative guideline values are available from other countries. The Council is aware that assumptions will have been made in deriving these and will have to be satisfied that these are appropriate to the *pollutant linkage* in question. In some instances, it may be necessary to undertake a Detailed Quantitative Risk Assessment (DQRA) using commercial *risk assessment* models. Default values will have been incorporated into these and the Council will have to be satisfied that these are also appropriate for the *pollutant linkage* in question. The Council will endeavour to ensure that all work undertaken is compliant with current UK policy.

#### 5.5.4 Risk Assessment for Controlled Waters

Relevant guidance will be consulted and advice sought from NRW on risk assessments where *controlled waters* form part of the *pollutant linkage*.

#### 5.5.5 Risk Assessment for Ecological Systems

The Environment Agency published an ecological risk assessment (ERA) framework for contaminated soils. This was developed in collaboration with the Defra, Natural England, Welsh Assembly Government, CCW, local authorities and industry. The framework consists of a three-tiered risk assessment process:

- Tier 1 comparison of chemical analyses of site soils with soil screening values (SSV) for the contaminants of potential concern.
- Tier 2 uses a choice of tools (ecological surveys and biological testing) to gather evidence for any harm to ecological receptors (plant and animal species) present at the site.
- Tier 3 seeks to attribute the harm to the chemical contamination.

Statutory guidance also requires that the Council should adopt an approach consistent with that of the Countryside Council for Wales in making any such determinations. Their advice will therefore be sought on *risk assessments* where ecological systems are concerned.

#### 5.5.6 Conceptual Site Model

All information obtained on a particular site will be used to develop a conceptual site model. The model will identify

- All receptors
- All pathways by which they could be exposed
- All contaminants associated with the former uses of the site or thought likely to be present.

It provides a representation in summary form of the nature of the contamination problem and demonstrates the risk assessor's understanding of the problem. Conceptual models can be expressed in tabular, matrix or pictorial forms and aid communication within teams and with other stakeholders.

## 5.6 Interaction with Other Regulatory Regimes

Other regulatory regimes may be used to address certain issues of land contamination. Overlaps with planning, building and development control, water pollution control and the Environmental Permitting Regulations are considered here. Where one or more of these other regimes apply, regulatory action under Part 2A may not be appropriate.

#### 5.6.1 Planning and Development Control

Central Government has emphasised the need to make full and effective use of land within existing urban areas, including bringing derelict, unused or wasteland into use through conversion and redevelopment. Welsh Government's Planning Policy Wales (Edition11. 2021) recognises that opportunities offered by the planning system to address land contamination should be maximised. Whenever development or redevelopment potential exists the planning system will be the preferred means of addressing potential land contamination. The onus will be on the developer to ensure that the development of the site removes unacceptable risks. The planning authority

in making development management decisions will need to ensure that the land is suitable for its proposed use and would not meet the legal definition of contaminated land under Part 2A.

Local Planning Authorities (LPA) are responsible for regulating development and land use in the public interest. When considering development proposals there is an obligation to ensure that all material planning considerations, which can include the actual or presence of contamination, are satisfactorily addressed. The LPA is required to consult with certain statutory consultees under the Town and Country Planning Act (General Permitted Development Order) 1990, over certain types of development and for development in specific areas. Where previous land use information suggests that there is a potential for contamination to be present, conditions may be attached to the planning consent requiring the developer to undertake an investigation of the land to help identify the risks posed to the development and design appropriate *remediation*. *Remediation* would then be dealt with under the Planning Controls and not Part 2A. As statutory consultees where contamination is suspected, the Public Health and Protection Division provides advice on technical matters relating to c*ontaminated land* and the discharge of planning conditions.

*Remediation* actions may also require planning permission. Where *remediation* is carried out under a remediation statement the onus is on the person carrying out the works to obtain all necessary permission. If works are being carried out under a *remediation notice* specified by the Council, it must be practicable. For example, it should satisfy development control criteria. When considering past development on potentially *contaminated land* it will be important to consider the appropriateness for the present land use of any previous *remediation* that may have been carried out. The same will be true of derelict land reclamation.

#### 5.6.2 Building Control

Building Regulations ensure the health and safety of people in and around buildings by providing functional requirements for building design and construction. Builders and developers are required to obtain building control approval, which requires an independent check made through Council building control functions or the National House Building Council (NHBC).

Contamination is covered by Requirement C1 of the Building Regulations (2010), which states that precautions should be taken to avoid danger to health and safety caused by substances found on or in the ground to be covered by the building. Contamination is also relevant to Requirement A concerning the structural integrity of buildings.

## 5.6.3 Integrated Pollution Prevention and Control (IPPC)/Environmental Permitting Regulations (2016).

Previously IPPC legislation regulated pollution arising from the most polluting industrial processes and required Part A processes site operators to undertake a site condition survey prior to receiving a license to operate. Now, any new Part A prescribed processes (activities) are subject to Environmental Permitting and will also require a site condition survey. These serve as a point of reference for regulators for judging whether there has been any additional contamination of the installation during the operation. On surrender of the permit a second survey is required. The Regulator

will hold the operator responsible for any pollution arising on site that was not reported in the original survey (unless for example pollution has clearly migrated on site) and will issue an enforcement notice requiring the Operator to remedy the pollution. Enforcement Notices will also be served to remedy pollution resulting from breaches of permit conditions. In certain circumstances Part 2A action may still be appropriate, for example, where the original site condition survey identifies areas of land that may be designated as *contaminated land* or contamination is identified in parts of the site not covered by the installation.

#### 5.6.4 Water Pollution Legislation

The Water Resources Act 1991 gives NRW powers to deal with *harm* to *Controlled Waters* being caused by *contaminated land*. Whilst Part 2A does not revoke these powers, it has been indicated that such problems should now be dealt with under the *Contaminated Land Regime*. The Council will therefore:

- Consult with NRW before designating any land as contaminated because of risk to *Controlled Waters* and will consider any comments made with respect to *remediation.*
- If NRW identifies a risk to *Controlled Waters* from *contaminated land*, the Council will be notified to enable designation of the land and remedial action will be taken under Part 2A.

Controlled waters are defined by Section 104 of the Water Resources Act 1991 as:

- Inland freshwaters, waters of any lake or pond (including reservoirs) or of so much of any relevant river or watercourse (including underground rivers or watercourse and artificial rivers or watercourse) as is above the freshwater limit, and ground waters, which is to say, any waters contained in underground strata.
- Reference to waters in the above also includes the bottom, channel or bed of any lake, pond or river that is for the time being dry.
- Ground waters for the purposes of Part 2A are considered by NRW to consist only of water within the saturated zone. Therefore, only water at or below the water table (including water that serves wells and boreholes) can be considered as *receptor* rather than soil/pore water within the unsaturated zone.

#### 5.6.5 Waste Management Licensing (Environmental Permits)

If any significant harm or pollution of *controlled waters* (or land) arises off-site because of a breach of a Waste Management Licence or Environmental Permit (or results from activities specifically authorised by the licence/permit, then Part 2A does not apply.

## Chapter 6 General Liaison and Communication

Many aspects of work under Part 2A require effective communication and liaison with other individuals and organisations to facilitate the exchange of information. It is the intention of the Council to take an approach that fully involves local communities that may be affected by contaminated land and is seen as an important part of our Community Leadership role. To this end, our goals and objectives for community involvement are:

- Earning trust and credibility through open and respectful communications
- Helping local community members understand what the process involves
- Promoting collaboration between the Council and local communities and other Government agencies
- Providing opportunities for local communities to become involved
- Managing and co-ordinating health communication activities with appropriate communities
- Informing and updating local communities about the Council's work
- Assisting local communities in understanding the possible health impacts of exposure to hazardous substances

## 6.1 Other Statutory Bodies

Contact was established with organisations acting as statutory consultees on the CLIS. Some of these organisations will also be able to provide information relevant to the determination of *contaminated land*. Local authorities are required to adopt an approach consistent with other statutory bodies in making such a determination; for example, where ecological systems are involved NRW would be consulted. Formal contact would be made with relevant parties through their official channels of contact/communication.

## 6.2 Non-statutory Consultees

In addressing *contaminated land* issues, the involvement of local business, the public and other relevant parties may be appropriate. These make up a group known as non-statutory consultees and were not approached individually to comment on the draft CLIS. It was the Council's intention to raise awareness of contaminated land and encourage wider involvement in the development of the CLIS by publicising the availability of the draft for comment. A press release was therefore prepared for local papers.

# 6.3 Communicating with Owners, Occupiers and Other Interested Parties

Pollution Control Officers act as the main point of contact within the Council for land contamination issues. They are responsible for establishing and maintaining contact with polluters, owners, occupiers, and relevant parties prior to any formal

determination of a piece of land as *contaminated*. It is the intention of Central Government that wherever possible, land contamination should be dealt with on a voluntary basis through consultation, rather than by serving a *remediation notice*.. The Council will therefore seek to secure voluntary *remediation* before taking enforcement actions.

## 6.4 Notifying others of Determinations.

Notification is the formal process by which Local Authorities inform certain parties that a particular area of land is *contaminated land* within the meaning of Part 2A. The formal notification marks the start of the three-month requisite consultation period between the Council and *appropriate persons* on what *remediation* will be appropriate and on liabilities for the cost.

The Council will undertake the following actions:

- Acting on the best available information at the time, identify interested persons, i.e., the owner of the land; the apparent occupier(s) of all or part of the land; the persons who appear to be the *appropriate persons*.
- Inform interested parties including NRW in writing of their intention to make a determination. The letter will inform them of the capacity in which they are being informed of the Council's intent.
- Notify the interested persons and NRW that the land has been determined as *contaminated* in writing. The letter will identify the capacity in which they are being notified. All *appropriate persons* will be provided with a summary of the basis for making the determination and why they are considered to be appropriate persons. The Council will write to all *appropriate persons* with information on the tests for exclusion from, and apportionment of liabilities for the *remediation* of the site. The letter will also inform the recipient of the Council's preference to securing *remediation* through voluntary actions rather than through the serving *remediation* notices.
- If requested, dispatch a copy of any additional information that may assist in consultation or in securing voluntary *remediation*.
- When appropriate, inform interested parties that the *contaminated land* may become a *Special Site*.
- Write to the owner and/or occupier of neighbouring property and/or the complainant notifying them of the determination.
- Notify (as soon as possible) any other person identified as an appropriate person.

## 6.5 Formal Designation of Special Sites

If the Council considers that an area of *contaminated land* might need to be designated as a *Special Site*, it will consult with NRW and seek their advice. If the Council decides, having regard to any advice received, that the land should be designated as a *Special Site* it will notify the owner and/or occupier, any *appropriate person* and NRW. NRW has 21 days to object to the Council. If objections are not received the Council notifies the relevant persons and the designation takes effect. If NRW objects, the Council will refer the decision to the Welsh Government and inform the relevant persons. Once a site has been designated as a *Special Site* the Council

must enter the details in its Contaminated Land Register and NRW becomes the *enforcing authority*.

## 6.6 Service of Remediation Notices

The enforcing authority has a duty to require the remediation of land designated as contaminated land. They must reasonably endeavour to consult with the appropriate persons, the owner and/or occupier of the site concerning what is to be done by way of remediation. If, after a period of three months has elapsed from the serving of notices determining the land as contaminated land, the enforcing authority considers a remediation notice will be the most appropriate way of securing remediation, the enforcing authority must serve a remediation notice. Before serving a notice, the enforcing authority must make reasonable attempts to consult with the owner, occupiers or others who may join in any granting of rights of entry. The notice must be served on all appropriate persons and must state what is to be done by way of remediation and the period in which this is to be completed. The person(s) on whom the notice is served must be advised of their right to appeal. A copy must be provided to the owner and/or occupier of the contaminated land and NRW. Where the Council is the enforcing authority, Public Health & Protection will inform the owners and occupiers of neighbouring land. This process is set out in a flow chart in Appendix 7.

## 6.7 Urgent Remediation

Urgent *remediation* may be required where the Council considers the condition of the land is such that there is an imminent danger of serious *harm* or serious pollution to *Controlled Waters* being caused. Under these circumstances the Council does not have to observe the requisite consultation period with the *appropriate persons*, owners and/or occupiers and may serve a notice immediately. Where the Council identifies an urgent need for *remediation* but is unable to establish who the *appropriate persons* are, the Council may carry out the *remediation* in default and recover reasonable costs, at a later date.

## 6.8 Powers of Entry

Under Section 108(6) of the Environment Act 1995, Local Authorities have been granted powers of entry to carry out investigation. Unless there is an immediate risk to human health or the environment, at least seven days' notice must be given to the owner and/or occupier of proposed entry onto any residential property or if taking heavy equipment onto a premises. These powers will be exercised in accordance with the Powers of Entry Code issued under the Protection of Freedoms Act 2012 or when applicable the Police and Criminal Evidence Act Code B.

## 6.9 Enforcement Action

The Council will have regard to the Regulators' Code in all aspects of legislation which has been deemed as "specified regulatory functions." Further information on the Regulators' position on this subject can be found within Rhondda Cynon Taf County Borough Council Corporate Enforcement Policy. Corporate Enforcement Policy | Rhondda Cynon Taf County Borough Council (rctcbc.gov.uk)

## 6.10 Risk Communication

Contaminated land issues are often complex and since the UK has adopted a riskbased approach it will be necessary for the *enforcing authority* to communicate the *risk assessment* and management involved to all stakeholders. SNIFFER (Scotland and Northern Ireland Forum for Environmental Research) has prepared a document "Communicating Understanding of Contaminated Land Risks, "which provides a basic step-by-step guide to risk communication and relationship building with stakeholders. This highlights the need to enter early dialogue with all the stakeholders identified, to invest time and effort into ongoing communication, and to assess the effectiveness of the approach in achieving the desired results.

The Council will aim to be open, accessible and responsive in all aspects of its communication with a view to providing a shared understanding of the *risk assessment* and risk management processes involved. Ultimately any decision on whether a particular risk is acceptable or not, is both personal and subjective; credible regulation will recognise this and consider the views, priorities and expectations of those parties affected, as well as those responsible for the situation (SNIFFER 2010). It should be stressed that Local Authorities can only address unacceptable and significant risks as set out in the Statutory Guidance. Enforcing authorities can only require that *remediation* eliminates these risks. It is envisaged that the public may not always have their expectations met by the remedial powers conferred by Part 2A.

The Council will seek to engage with the communities around contaminated land sites in the most effective way e.g. through the establishment of a residents' liaison group, regular newsletters and mobile exhibitions to ensure that those communities are fully informed as soon as possible. The Council will aim to be open, honest, and objective about the risks but not to cause unnecessary alarm or to generate publicity, which might lead to blight.

#### 6.11 Complaints Procedure.

Rhondda Cynon Taf County Borough Council is committed to providing the best possible services to customers, residents, and visitors to the Borough. We pride ourselves on delivering services well and having staff that are committed to doing a good job. We recognise that on occasions either the delivery or quality of our services may fall short or exceed both ours and/or our customers' expectations and when this happens, we want our residents, customers, and visitors to let us know. Further details of the Council's complaints handling procedure can be viewed online at <u>Comments, compliments and complaints | Rhondda Cynon Taf County Borough Council (rctcbc.gov.uk)</u>

## Chapter 7 Inspection

Potentially contaminated land sites identified on the basis of there being a potential source of contamination in proximity to *receptors* will undergo a prioritisation process. This will provide an order of action for the more detailed site inspections.

## 7.1 Arrangements for Carrying Out Detailed Inspections

Detailed inspections are required to ensure that the Council has the information it needs to decide whether a particular area of land appears to be *contaminated land* and if so, whether it could be a *Special Site*. Welsh Statutory Guidance covers the inspection of particular areas of land and prescribes the form that the detailed inspections may take. The Council will therefore undertake an assessment of all available documentary information to determine whether there is a reasonable possibility that *pollutant linkages* exist. Former workers and local residents may also be able to provide valuable information.

#### 7.1.1 Detailed Inspections

The Council will only consider further inspection where initial studies have shown that there is a reasonable possibility that a *pollutant linkage* exists. These inspections will take the form of

- A visual inspection of an area, and in some cases limited sampling; or
- Intrusive investigation of the land (exploratory excavations) but only where necessary funding can be secured.

#### 7.1.2 Potential Special Sites

Before undertaking any further inspections, the Council will consider whether the information from the desktop study has indicated that the site may be a *Special Site* (including RCL). If this is the case the advice of NRW will be sought. NRW will then be afforded the opportunity of an early involvement with the site and invited to carry out the inspection on the Council's behalf.

#### 7.1.3 Statutory Powers of Entry

Section 108 of the Environment Act 1995 gives a Local Authority the power to authorise persons to enter premises to carry out inspections. This can include collecting samples and carrying out any related work needed by the Local Authority to determine whether the land is *contaminated*. The Council will observe those constraints placed on the use of these powers by the Welsh Statutory Guidance.

#### 7.1.4 Visual Inspections

Often referred to as site walkovers, visual inspections allow the Council to check that the desktop study information matches reality and allows additional information to be obtained. It may not be necessary to physically enter the site for this purpose. "CLR2, Guidance on Preliminary Site Inspection of Contaminated Land, DoE 1994" containing technical advice on visual inspection will be consulted along with any other appropriate references identified and LCRM.

#### 7.1.5 Intrusive Investigations

In accordance with Welsh Statutory Guidance the Local Authority will only undertake intrusive investigations using its statutory powers of entry where it is satisfied that based on the information already obtained that

- There is a reasonable possibility of a *pollutant linkage*; and
- it is likely that both the contaminant and receptor are present and
- it has not already been provided with appropriate, detailed information on the condition of the land (e.g., by NRW or some other person such as the owner of the land) which is sufficient information for the Local Authority to decide whether the land is contaminated land; or
- a relevant person (e.g., the owner of the land, or a person who may be liable for the contamination) does not offer to provide such information within a reasonable and specified time or fails to provide the information within that time.

#### 7.1.6 Site Specific Liaison

The Local Authority will liaise with relevant statutory bodies and other *appropriate persons* such as the landowner prior to carrying out intrusive investigations. This will allow them to make available to the Council any detailed information that they may have to assist in the determination. Where a person offers to provide this information within a reasonable time limit and does so, the Council will not undertake an intrusive investigation.

#### 7.1.7 Procurement of External Services

It may become necessary to procure the services of external contractors and consultants to assist the Council in its inspection process. The Council's policy on procurement will be observed in these instances.

Since the *remediation* of *contaminated land* is usually very costly, the decision to determine land as *contaminated land* is likely to be scrutinised and may be contested in Court. Inspections and reports must therefore be of high quality. Due care will be exercised when securing external services and DoE guidance (A Quality Approach for Contaminated Land Consultancy, CLR12, 1997) will be considered.

#### 7.1.8 Frequency of Inspections

Part 2A of the Environmental Protection Act 1990 requires Local Authorities to inspect their areas from time to time. The frequency is not prescribed. After the first round of inspections have been completed, the Council will then consider the information that is available to help decide how best to meet this requirement.

## Chapter 8 Review Mechanisms

This CLIS outlines the general approach that will be taken in inspecting the County Borough for contamination. This chapter describes triggers for undertaking inspections outside of this general approach, triggers for reviewing inspection decisions and a mechanism for reviewing the CLIS itself to ensure that it remains effective and up to date.

## 8.1 Triggers for Undertaking Inspections

It may be necessary to carry out inspections outside the general inspection framework under certain circumstances, which may include:

- Localised health effects being identified which appear to relate to a particular piece of land
- Supporting voluntary remediation
- Introduction of new *receptors*, e.g., if housing is to be built on a potentially contaminated site
- Responding to information from other statutory bodies, owners, occupiers, or other relevant parties.

## 8.2 Triggers for Reviewing Inspection Decisions

There may be instances when the decisions of previous inspections require reviewing. These may include:

- Significant changes in legislation
- Establishment of significant case law or other precedent
- Significant reviews of toxicological data used for risk assessments
- Verifiable reports of unusual or abnormal site conditions
- Responding to information from other statutory bodies, owners, or occupiers, or other relevant persons i.e., those directly impacted.
- Localised health effects apparently relating to a particular area of land.
- Unplanned changes in the land use.

## 8.3 Review of CLIS

It is important to assess the effectiveness of the CLIS through the review process. This will ensure that the requirements of Part 2A are being met and that there is efficient use of resources. The CLIS was adopted and published in January 2004. At that time, it was intended to review the progress made in January 2005, one full year after the strategy's implementation. If progress was found to be satisfactory the next review was scheduled for 2007 when inspections were due to have been completed and sites prioritised for remediation.

Initially, progress with the CLIS was slower than anticipated. There was a considerable reduction in available officer time due to: -

• Involvement with the inspection, designation, ongoing monitoring, and remediation of Brofiscin Quarry *Special Site* 

- Ongoing involvement with the redevelopment of potentially contaminated land through the planning process.
- An increase in the number of functions performed by the Pollution Control Officers.
- Welsh Government's removal of capital grant funding for contaminated land.

The team's involvement with land contamination issues via the planning process continues to demand a significant amount of officer time, it does provide an alternative mechanism for dealing with contamination by ensuring that the land is suitable for use and securing remediation on a voluntary basis. In addition to these pressures, the withdrawal of capital grant funding for contaminated land in 2010 significantly impacted Welsh Local Authorities in their ability to undertake the formal investigation of potentially contaminated land.

The first full review of the CLIS was completed in 2008. The strategy was revised in 2016 to take into account the extension of Part 2A to cover RCL and the Statutory Guidance published in 2012. Progress reviews were then scheduled at five-yearly intervals and was due to be carried out in 2021. This was unfortunately delayed because of the impact and disruption caused by the global pandemic (Covid-19). The schedule for review will remain set at 5-yearly intervals.

## **Chapter 9** Information Management

The *Contaminated Land Regime* will result in Local Authorities handling and storing significant amounts of information and data in connection with sites undergoing inspection and *remediation*.

## 9.1 The Public Register

Local Authorities are required by the legislation to maintain a public register of certain information relating to the *remediation* of *contaminated land*. This specifies that the following information is to be included on the register:

- Remediation Notices
- Appeals against Remediation Notices and the decisions on such appeals
- Remediation declarations, remediation statements, notification of claimed *remediation*
- Appeals against charging notices
- Designation of Special Sites
- Convictions
- Guidance issued by the NRW to it under subsection 1 of Section 78V

The Register acts as a permanent record of all regulatory action taken in relation to the *remediation* of *contaminated land*. It should be noted that where land has been determined as *contaminated land* it would not appear on the Public Register until regulatory action is undertaken.

In Rhondda Cynon Taf, the register is maintained by members of the Pollution Control Team who will ensure that all relevant information is recorded and the register kept up-to-date. The register will be paper-based for the foreseeable future and held by the Public Health and Protection Division at its offices, Ty Elai, Dinas Isaf East, Williamstown, Tonypandy, CF40 1NY. Members of the public may view the register free of charge during normal office hours. Facilities to make copies will be available subject to the Council's current rate of charges.

## 9.2 Information Excluded from the Register

Before information is included on the Public Register, Local Authorities must consider whether it should be excluded on the grounds of commercial confidentiality or national security. Where information is excluded on such grounds the Council will make a statement on the register indicating the existence of such information.

The Public Register will not include details of land identified as potentially contaminated or include research documents used to investigate potentially contaminated land. These will be stored separately and used by the Council to respond to requests for information about specific sites under the Environmental Information Regulations 2004. Enquiries should be made to Public Health & Protection and should include the site's address, grid reference and plan showing the site. A fee will be levied for the provision of this information where appropriate. The

fee will be set in accordance with the fees and charges in force at the time the enquiry is made.

## 9.3 Provision of Information to Natural Resources Wales (NRW)

The Council will, upon request from NRW, supply them with information required for their annual report for the Welsh Government on the state of contaminated land in Wales. Local Authorities are also required to inform NRW whenever a site is determined as *contaminated land*, and whenever a *remediation notice*, statement or declaration is issued or agreed. The Council will adopt the standard forms provided by NRW for these purposes to fulfil its statutory obligations.

## Appendices

# Appendix 1 Table 1 - Welsh Statutory Guidance 2012 Table 1 Ecological system effects

Relevant types of receptors	Significant harm	Significant possibility of
		significant harm
Any ecological system, or living organism forming part of such a system, within a location which is: • a site of special scientific interest (under section 28 of the Wildlife and Countryside Act 1981) • a national nature reserve (under s.35 of the 1981 Act) • a marine nature reserve (under s.36 of the 1981 Act) • an area of special protection for birds (under s.3 of the 1981 Act) • a "European site" within the meaning of regulation 8 of the Conservation of Habitats and Species Regulations 2010 • any habitat or site afforded policy protection under paragraphs 5.2.2-5 TAN 5 Nature Conservation and Planning (i.e., candidate Special Areas of Conservation, potential Special Protection Areas and listed Ramsar sites); or • any nature reserve established under section 21 of the National Parks and Access to the Countryside Act 1949.	The following types of harm should be considered to be significant harm: • harm which results in an irreversible adverse change, or in some other substantial adverse change, in the functioning of the ecological system within any substantial part of that location; or • harm which 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. 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 the Countryside Council for Wales and to the requirements of the Conservation of Habitats and Species Regulations 2010	Conditions would exist for considering that a significant possibility of significant harm exists to a relevant ecological receptor where the local authority considers that: • significant harm of that description is more likely than not to result from the contaminant linkage in question; or • there is a reasonable possibility of significant harm of that description being caused, and if that harm were to occur, it would result in such a degree of damage to features of special interest at the location in question that they would be beyond any practicable possibility of restoration. Any assessment made for these purposes should take into account relevant information for that type of contaminant linkage, particularly in relation to the ecotoxicological effects of the contaminant.

<sup>7</sup> Will be superseded by Marine Conservation Zones upon commencement of Part 5 of the Marine and Coastal Access Act 2009.

## Appendix 2 Table 2 - Welsh Statutory Guidance 2012

Table 2: Property effects			
Relevant types of receptor	Significant harm	Significant possibility of	
		significant harm	
<ul> <li>Property in the form of:</li> <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>	For crops, a substantial diminution in yield or other substantial loss in their value resulting from death, disease or other physical damage. For domestic pets, death, serious disease or serious physical damage. For other property in this category, a substantial loss in its value resulting from death, disease or other serious physical damage. The local authority should regard a substantial loss in value as occurring only when a substantial proportion of the animals or crops are dead or otherwise no longer fit for their intended purpose. Food should be regarded as being no longer fit for purpose when it fails to comply with the provisions of the Food Safety Act 1990. Where a diminution in yield or loss in value is caused by a contaminant linkage, a 20% diminution or loss should be regarded as a benchmark for what constitutes a substantial diminution or loss. In this Chapter, this description of significant harm is referred to as an "animal or crop effect".	Conditions would exist for considering that a significant possibility of significant harm exists to the relevant types of receptors 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.	
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.	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. 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. In this Chapter, this description of significant harm is referred to as a "building effect".	Conditions would exist for considering that a significant possibility of significant harm exists to the relevant types of receptors 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.	

#### Table 2: Property effects

## Appendix 3 Risk-Based Classification of Land Uses

Taken from 'Desk reference Guide to potentially Contaminative Land Uses' Paul Syms, the following table shows a perceived hierarchy of the likelihood of finding contamination on site. The perceived risk category is intended to indicate the likelihood of contaminative substances being present at concentrations which would result in *significant harm* being caused or may result in the pollution of *Controlled Waters*. The index of perceived risk is intended to represent the potential for contaminative substances to be present, at concentrations which will require remedial action to be undertaken if the site is to be redeveloped (1=certainty).

Hazard	Land Use Classification	Index of	Perceived
Rank		Perceived	Risk
		Risk	Category
1	Asbestos Manufacture and use	High	1.00
2	Organic and inorganic chemical production	High	0.93
3	Radioactive materials processing/disposal	High	0.88
4	Gasworks, coke works, coal carbonisation	High	0.85
5	Waste disposal sites, hazardous waste,	High	0.85
	incinerators, sanitary depots, drum and tank	0	
	cleaning and solvent recovery		
6	Oil refining, petrochemical production and	High	0.84
	storage	0	
7	Manufacture of pesticides	High	0.83
8	Pharmaceutical industries, including	High	0.82
	cosmetics and toiletries.	0	
9	Fine chemicals, dyestuffs and pigments	High	0.82
	manufacture	0	
10	Paint, varnishes, and ink manufacture	High	0.79
11	Animal slaughter and by-products including	High	0.78
	soap, candle and bone works; detergent	0	
	manufacture.		
12	Tanning and leather works	High	0.77
13	Metal smelting and refining, furnaces forges,	High	0.74
	electroplating, galvanising and anodising.	0	
14	Explosives industry including fireworks.	High	0.73
15	Iron and steel works	High	0.72
16	Scrap yards	High	0.68
17	Engineering; heavy and general	Medium	0.66
18	Rubber products and processing	Medium	0.65
19	Tar/bitumen, linoleum, vinyl & asphalt works.	Medium	0.65
20	Concrete, ceramics, cement, and plaster	Medium	0.65
	works.		
21	Mining and extractive industries	Medium	0.65
22	Electricity generating (excluding nuclear	Medium	0.64
	power stations)		
23	Film and photographic processing	Medium	0.63
24	Manufacture of disinfectants	Medium	0.62
25	Paper and printing works (not high street)	Medium	0.60
26	Glass manufacture	Medium	0.58
27	Fertiliser manufacture	Medium	0.58
28	Timber treatment.	Medium	0.58
29	Sewage treatment works.	Medium	0.54

30	Petrol stations and vehicle repair	Medium	0.53
31	Transport depots, local authority yards and	Medium	0.53
	depots, road haulage and refuelling.		
32	Railway land including yards and tracks.	Medium	0.53
33	Electrical/ electronic manufacture	Medium	0.48
34	Textiles manufacture and dyeing.	Medium	0.48
35	Laundries and dry-cleaning (not high street)	Medium	0.48
36	Plastic products, building material, fibre	Medium	0.48
	glass manufacture.		
37	Dockyards and wharves	Low	0.48
38	Food processing, brewing and distilling.	Low	0.45
39	Airports and similar	Low	0.45

## Appendix 4 Prioritisation Protocol

#### Past Land Use Identification

- Industrial past land uses were identified using Historical Maps and recorded on the Council's GGP GIS software package as detailed in the Council Part 2A Strategy.
- Historical map searches utilised 6" OS County Series 1<sup>st</sup> to 4<sup>th</sup> Editions (approx. 1875 – 1948) and later OS 1:2500 sheets (1950s – 1990s) and OS Landline (GGP) 2003.
- Identified past uses were recorded within a database and boundaries digitised onto a searchable GGP overlay. (Note: Boundaries of all sites are approximate based upon visual reference to existing boundaries and local landmarks.)

#### Site prioritisation

- Past land uses were prioritised using purchased Geokon Risk Prioritisation Software (see below).
- > Past land uses were categorised into one of 4 site types:
  - Past Land Use (PCL) Historical industrial use where no Part 2A determination has been made to date (excluding landfills)
  - Landfills (LF) Past / present landfill sites identified from "1", Council records and Environment Agency Licenses.
  - Contaminated Land (CON) Sites determined as "contaminated land" under Part 2A.
  - Special Site (SS) Sites determined as a "special site" under Part 2A.
- Industry profiles (PHS score) were assigned to sites, based upon past industrial activities (more than one industry profile can be assigned per site i.e., former chemical factory & former textiles factory).

(Note: Industry profiles within Geokon software were derived from published DoE profiles or created where an appropriate profile was not published. Profiles were assigned scores to reflect contamination risks to land and controlled waters based upon published ranking criteria.)

Current uses (RSS Score) of the site were assigned using GGP landline (2003) and aerial photography (2000) overlays. Current use categories used for this are defined in Table 3.

The most conservative use was chosen where several options apply (e.g., farmyard identified as commercial / industrial). If no features were

obvious, CU was determined as Public Access (or Farmland where area has no obvious public access or is in farming area)

(Note: To compensate for boundary uncertainties current use was defined for highest industry profile scoring sites (2b) as the most sensitive land use within a 10 m radius of the site. For all other sites current use was defined as the most sensitive land use within or directly bordering the site.)

- Geokon Stage 1 Prioritisation was determined as the combined score from the site industry profile and its current use (PHS x RSS = stage 1 score).
- Stage 1 prioritisation was refined to incorporate additional protection zones (PZ) determined as potential additional risks to end-users and the environment. Using the MapInfo Software, relevant datasets were queried against the PLU data. Scores were assigned to each search criteria based on the potential increased risk of a Part 2A determination. Geokon then multiplies this figure by the industry profile receptor scores. Details of the scoring system can be found below: -

#### Surface Waters PZ

Surface water features were taken from the MasterMap layer and queried against the PLU layers. A 10m buffer was applied to take into account boundary discrepancies. Scores are surface water feature present = 6; no surface water feature present = 2.

#### Groundwater PZ

Presence of a major or minor aquifer as defined by Environment Agency Wales GIS overlay. A 50m buffer was applied to take into account boundary discrepancies. Scores are presence of a major aquifer = 6; presence of a minor aquifer = 2.

#### **Other Factor Scores**

In addition to the protection zones, it was decided that additional factors would be applied through the use the 'Other Factor Scores' (OFS) tab within GeoEnviron. This were applied to be consistent with the Council's Contaminated Land Strategy and to also ensure that the sites a range of scores on the prioritisation list. OFS can be found in Table 4.

Table 3 -	Current	use c	lassifications
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Score	Category	Types	Evidence
6	Residential With Gardens	Non-commercial premises with landscape / grass surrounds.	Land-line plan and address points (2003). Aerial photography (2000)
5	Residential Without Gardens	Non-commercial premises with no obvious landscaping / grass.	Land-line plan and address points (2003). Aerial photography (2000).
5	Allotments	Plots (excluding residential gardens) used for non-commercial cultivation (including overgrown plots)	Land-line plan and GGP labels (2003). Aerial photography (2000). Evidence of sheds.
4	Commercial & Industrial	Currently operational commercial or industrial properties / activities Farmyards (excluding farmhouses)	Land-line plan and address points (2003). GGP labels. Aerial photography (2000).
4	School / Hospital Land	Schools and hospitals including nurseries, cottage hospitals. Excluding GP surgeries.	Land-line plan and address points (2003). GGP labels. Aerial photography (2000).
4	Public Open Space	Recreational Areas / Picnic Areas Parks and Playing Fields Athletics tracks. Camping / caravan sites Water Features (Fishing etc)	Written labels on GGP Landline Photographic evidence of pitches, playing fields, riverbanks etc.
4	Vacant Land	Derelict sites (without intact buildings as sites with these will be classed as residential or commercial) Assumes some degree of access	Open ground in or near built-up areas. Reclaimed areas proposed for strategic development (e.g., Coed Ely).
3	Farmland	Livestock or arable	Field patterns on Landline / aerial photography Aerial photos showing livestock. Presence of farm buildings (Note Farmyards are to be classed as commercial & industrial end-use or residential end-use where farmhouse is apparent)

2	Public Access	Non-Farmland or Recreational areas Forestry Paths / cycleways Road verges Land between roads / railways PROW Church yards	Absence of field patterns, livestock, sports fields. Evidence of paths, tracks, disused railways/tramways. Evidence of public access to site (roads etc)
1	Hardstanding	Car Parks Roads Paved and tarmac areas	Land-line plan and GGP labels (2003). Aerial photography (2000).
0	Outside RCT	Past Land uses close to but outside RCT Boundary (NOTE: sites archived within GeoEnviron)	GGP Boundary

#### Table 4 – Other Factor Scores

ID	Name	Receptor Type	Score	Comments
OF01	SSSI	Land Use	10	10m Buffer
OF02	Special Area of Conservation	Land Use	10	10m Buffer
OF03	Scheduled Ancient Monument	Land Use	10	10m Buffer
OF05	Source Protection Zone	Ground Water	10	10m Buffer
OF06	Private Water Supply	Human Health	20	250m Buffer
OF07	Site Remediated pre-2005	All	-5	2005 date of Contaminated Land Regime
OF08	Site Remediated post 2005 (Validation Approved)	All	-40	2005 date of Contaminated Land Regime
OF09	Site Remediated post 2005 (Validation NOT Received)	All	-10	2005 date of Contaminated Land Regime
OF10	RQO On-site	Surface Water	20	0m
OF11	RQO <25m	Surface Water	15	25m
OF12	RQO <50m	Surface Water	10	50m
OF13	RQO <100m	Surface Water	5	100m

## Appendix 5 - Glossary

**Appropriate Person** - any person defined by Section 78F of the Environmental Protection Act 1990, who is appropriate to bear the responsibility of effecting the remediation required by the enforcing authority.

Contaminant - a contaminant is a substance which is in, on or under the land and which has the potential to cause harm or to cause pollution to controlled waters.

*Class A Person* - are those regarded as an appropriate person because they caused or knowingly permitted the substance in question (the pollutant) to be in, on or under the land.

**Contaminated Land** - is defined by Section 78A of the Environmental Protection Act 1990 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 significant harm is being caused or there is a significant possibility of such harm being caused; or pollution of controlled waters is being, or is likely to be caused."

**Contaminated Land Regime** - refers to the interaction of Part 2A of the Environmental Protection Act 1990, Statutory Guidance and Regulations issued and is a means by which historical contamination may be dealt with to ensure land is suitable for use.

**Controlled Waters** - has the same meaning as Part III of the Water Resources Act 1991

**Enforcing Authority** - means, in relation to Special Sites, NRW and in relation to all other contaminated land the Local Authority in whose area the land is situated.

*GIS* - Geographical Information System is a computer-based application capable of generating maps and linking records to specific areas of land.

*Harm* - defined by Section 78A as "harm to the health of living organisms or other interference with the ecological systems of which they form a part and, in the case of man, includes harm to his property".

*IPC* - Integrated Pollution Control. Legislation introduced by Part I of the Environmental Protection Act 1990 covering the control of emissions to air, land, and water from the most polluting industrial processes.

**Liability Group** – a group consisting of *appropriate persons* who have been identified by the *enforcing authority* as being liable for the cost of remediation relating to a *significant contaminant linkage*.

**Orphan Linkage** – is defined as a *significant contaminant linkage* for which there are no members of the *liability group*. This may occur where: (a) the *pollution linkage* relates solely to the pollution of *controlled waters* (and not to *significant harm*) and no *Class A person* can be found; (b) no *Class A* or *Class B persons* can be found; or (c) those who would be otherwise liable are exempted by one of the statutory provisions.

**Orphan site** - where the *enforcing authority* cannot find Class A persons or Class B persons in respect of all of the *significant contaminant linkages* for the site, there will be no *liability group* to bear the cost of *remediation*.

**Pathway** - is one or more routes or means by, through, which a receptor is being exposed to, or affected by, a contaminant, or could be so exposed or affected.

**Pollutant Linkage** - means the relationship between a contaminant a pathway and a receptor.

**Receptor** - a living organism, a group of living organisms, an ecological system, or a piece of property which is in the categories listed by Table A of the Welsh Statutory Guidance (see Appendix 1).

**Remediation** - is defined in Section 78A of the Environmental Protection Act 1990 as,

- 1. "the doing of anything for the purpose of assessing the condition of the contaminated land in question; any controlled waters affected by that land: or any land adjoining or adjacent to that land.
- 2. the doing of any works, the carrying out of any operations or the taking of any steps in relation to any such land or waters for the purpose of a) preventing or minimising, or remedying or mitigating the effects of, any significant harm, or pollution of controlled waters, by reason of which the contaminated land is such land; or,
- 3. The making of subsequent inspections from time to time for the purpose of keeping under review the condition of the lands or waters."

**Remediation Notice** - has the meaning given by Section 78E of the Environmental Protection Act 1990 and is a notice served on appropriate persons by the enforcing authority specifying what the persons are to do by way of remediation and the periods within which he is required to do each of the things specified.

**Risk Assessment** - the definition of contaminated land is based upon the principles of risk assessment. Risk is defined as the probability, or frequency, of occurrence or a defined hazard (for example, exposure to a property of a substance with the potential to cause harm) and the magnitude (including the seriousness) of the consequences.

**Significant Harm** - Welsh Statutory Guidance requires that the local authority should regard as significant only harm which is both; to a receptor of a type listed in Table A of the Guidance (see Appendix 1) and within the description of harm specified for that type of receptor in that table.

**Special Site** - The Contaminated Land (Wales) Regulations 2001, Regulations 2 and 3 and Schedule 1 identify those sites requiring determination as Special Sites.

## **Appendix 6 References**

#### Legislation

Environment Act 1995

Environmental Protection Act 1990, Part 2A, s.78A - s.78YC.

Contaminated Land (Wales) Regulations 2006- National Assembly for Wales

Contaminated Land Statutory Guidance for Wales 2012 – Welsh Government Radioactive Contaminated Land (Modification of Enactments) (Wales) Regulations 2006

#### Guidance

Assessment of the Risks to Human Health from Land Contamination; an Overview of the Development of Soil Guideline Values and Related Research CLR 7- Department of the Environment, Food and Rural Affairs and the Environment Agency

Category 4 Screening Levels (C4SLs) – Welsh Government Statement 2014

Contaminants in Soil; Collation of Toxicological Data and Intake Values for Humans CLR9 - Department of the Environment, Food and Rural Affairs and the Environment Agency

Contaminated Land Inspection Strategies, Technical Advice for Local Authorities - Department of the Environment, Transport and the Regions and the Environment Agency.

Contaminated Land Part 2A, Local Authority Guide to the Application of Part 2A of the Environmental Protection Act 1990 - Environment Agency 2001.

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Investigation of Potentially Contaminated Sites - Code of Practice (BS 10175: 2011) - British Standards Institute

Land Contamination: A Guide for Developers, WLGA/EA Land Contamination Working Group, February 2012

Land Contamination: A Guide for Developers, Welsh Local Government Association and NRW, 2023

Land Contamination Risk Management (LCRM) – LCRM.gov.uk

Potential Contaminants for the Assessment of Land (Contaminated Land Report (CLR) 8) - Department of the Environment, Food and Rural Affairs and the Environment Agency

Welsh Local Authority Guide to the Application of Part 2A of the Environmental Protection Act 1990, WLGA 2002.

#### **Development Plans**

The Mid Glamorgan Local Plan for Limestone Quarrying as affecting Rhondda Cynon Taf, adopted 1997.

The Mid Glamorgan (Rhondda Cynon Taf County Borough) Replacement Structure Plan, adopted 1999.

Rhondda Local Plan (Including Waste Policies), adopted 1998.

Taff Ely Local Plan (Including Waste Policies), adopted 2003.

Cynon Valley Local Plan (Including Waste Policies), as proposed to be modified.

Rhondda Cynon Taf Local Development Plan (up to 2021), adopted March 2011

#### **Bibliograph**y

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Communicating Understanding of Contaminated Land Risk, SNIFFER 1999

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Community Involvement in ATSDR's Public Health Assessment Process, Agency for Toxic Substances and Disease Registry (ATSDR), June 2002.

Derelict Land and Land Reclamation in the Borough of Cynon Valley 1980-1985.

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Guidance for the Safe Development of Housing on Land Affected by Contamination, Environment Agency and NHBC R&D publication 66, 2000.

Industrial Britain, South Wales, Graham Humphrys, David and Charles: Newton Abbot 1972.

Industrial South Wales 1750-1914, Essays in Welsh Economic History, Edited by W.E. Minchinton, Frank Cass and Co. Ltd, 1969.

Industry Before the Industrial Revolution, William Rees, Cardiff University Press, 1969.

Pilot Survey of Potentially Contaminated Land in Cheshire - A Methodology for Identifying Potentially Contaminated Land Sites, Department of the Environment July 1990.

Planning Policy Wales, 2002

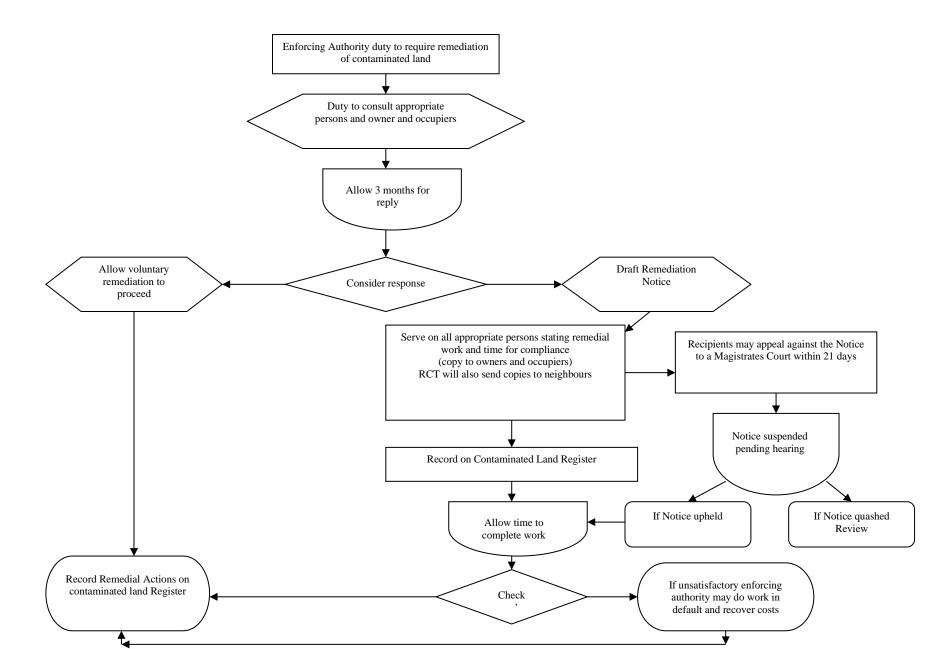
Planning Policy Wales, Edition11. 2021

Rhondda Cynon Taf Performance Plan 2001 - 2002

The Rhondda Valleys, E.D. Lewis, University College Cardiff Press, 1963.

The WDA Manual on the Remediation of Contaminated Land, WDA 1993.

## Appendix 7 Simplified Procedure for Service of Remediation Notices



#### Appendix 8 List of Consultees on CLIS 2004

#### **Statutory Consultees**

Environment Agency Wales CADW - Welsh Historic Monuments Countryside Council for Wales (CCW) Welsh Development Agency Food Standards Agency

#### Health Advisors

National Public Health Service Local Health Board

#### **Neighbouring Authorities**

Brecon Beacons National Park Bridgend CBC Caerphilly CBC Cardiff CBC Merthyr CBC Neath Port Talbot CBC Vale of Glamorgan CBC

#### Local Members of Parliament and Assembly Members

Ann Clwyd MP Dr Kim Howells MP Chris Bryant MP Huw Irranca-Davies MP Jane Davidson AM Christine Chapman AM Leighton Andrews AM

#### Elected Members of Rhondda Cynon Taf County Borough Council

Brian Arnold **Richard J Ashton** Paul Baccara Graeme Beard Stephen Belzak Terry Benney Robert Bevan Michael Brittain Gordon Bunn Judith Burford **Yvonne** Caple Bernard P Channon Michael Forey Anthony Christopher Robert G Fox John Codd Henry J Cox John Daniel Annette Davies Cennard Davies **Eurwen Davies** 

Geraint R Davies Jim Davies Pauline Jarman **Emlyn Jenkins Raymond Davies** John David A.L. Davies, MBE Annette Davies Gerwyn Evans Kathleen Evans Bryan Fitzgerald Bernard J Gooch Stuart Gregory Eudine Hanagan Edward L Hancock Adrian E Hobson Charles Hughes

Jonathan Huish Shah Imtiaz Paul James Idris Jones Jill M Jones Katrina Jones Larraine Jones Layton Jones Lionel Langford Lisa Lewis Philip Lewis Christina Levshon Robert B McDonald D Ifor Williams Svd Morgan **Rita Moses** Gordon R Norman Neil O'Farrell Gregory M Powell Michael J Powell

Aurfron Roberts Karen Roberts Russell Roberts David J Rogers Graham Stacey Victor C Thomas **Roger Turner** Elizabeth A Walters Jane S Ward **Dennis R Watkins** Maureen Webber Islwyn Wilkins Julie Williams Julie A Williams Vyvyan T Williams Clayton Willis Rebecca L Winter

#### Community Councils in Rhondda Cynon Taf

Gilfach Goch Community Council Hirwaun Community Council Llanharan Community Council Llanharry Community Council Llantrisant Town Council Llantwit Fardre Community Council Pontyclun Community Council Pontypridd Town Council **Rhigos Community Council** Taff's Well Community Council **Tonyrefail Community Council** Ynysbwl, Coedycwm Community Council

#### Rhondda Cynon Taf County Borough Council Officers

The Group Director of Environmental Services The Director of Development and Regeneration The Building and Development Control Co-ordinator The Head of Estates Management Land Reclamation and Engineering Manager The Divisional Director of Legal Services Co-ordinators of Area Regeneration Partnerships

## Other Interested Community Groups

Nantygwyddon Liaison Group (including RANT) Brofiscin Liaison Group Friends of the Earth

The draft CLIS was also posted on the Council's web site for access by any interested party.