



monmouthshire  
sir fynwy

Public Protection

Environmental Health Department

Monmouthshire County Council

Contaminated Land Inspection Strategy

2017

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## 1.0 Introduction

### 1.1 Context of the 2017 Contaminated Land Inspection Strategy

Wales has a considerable legacy of historical land contamination involving a wide range of substances associated with a diverse industrial usage, as well as mining and waste disposal activities, and Monmouthshire despite being a largely rural authority has its fair share.

A number of government regimes now exist to prevent or minimise any ongoing contamination from such activities, and to deal with the legacy of historical contamination through redevelopment opportunities. However, there remains a need for intervention where historical land contamination poses unacceptable risks to human health and the environment where there is no alternative solution to address the risks.

Legislation relating to contamination has existed since April 2000, when Part 2A of the Environmental Protection Act 1990 (EPA 1990) came into force by virtue of The Environment Act 1995. This required local authorities to publish a strategy that sets out how it will deal with contaminated land and keep this under periodic review, and to base their strategies on Statutory Guidance produced by the Secretary of State (or Welsh Ministers).

Monmouthshire County Council's (MCC) Contaminated Land Inspection Strategy was originally written in September 2002 to fulfil the Council's legal obligations under Part 2A of the Environmental Protection Act 1990 (referred to in this strategy as Part 2A), and the Welsh Assembly Government's Part 2A Statutory Guidance on Contaminated Land. The Strategy detailed the arrangements and procedures that the council would use to inspect potentially contaminated land in the County.

Since 2002 MCC have progressed the strategy by identifying potentially contaminated land sites based on historical maps dating back to 1800's and digitally mapping all of these (approximately 2,500) onto an integrated GIS/risk assessment software program. Once mapped each site was prioritised into six levels of risk by undertaking a Phase 1 risk assessment based on potential hazards/harm from the historical or current usages and the sensitivity of the current receptor. Each site had four risk assessments undertaken to assess potential risk to the four main receptors that Local Authorities have a duty to inspect under Part 2A. These are Human Health, Groundwater, Surface Water and Ecology/property.

This enabled the authority to significantly progress the Strategy by producing a prioritised list of sites to be investigated further based on the phase 1 risk assessment. The sites and prioritisation list have been kept continually under review and additional land added when new information has come to light.

In 2013 the Welsh Government (WG) published an updated version of the Part 2A Statutory Guidance entitled “Contaminated Land Statutory Guidance for Wales 2012 (Number: WG19243). The Guidance is legally binding on enforcing authorities and required them to update their Inspection Strategies to take into account the changes in the guidance.

Therefore this Strategy replaces the Council’s 2002 Strategy and explains how MCC will implement the contaminated land regime over the period 2017-2022 as required by Part 2A and in accordance with the 2012 Statutory Guidance.

## 1.2 Definition of Contaminated Land

When Part 2A and the Guidance refer to contaminated land, they refer to the specific definition given in Section 78A (2) of the EPA 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, either:

- Significant harm is being caused or there is the significant possibility of such harm being caused; or
- Significant pollution of controlled waters is being caused, or there is a significant possibility of such pollution being caused.<sup>1</sup>

Therefore the presence of a contaminant in land does not of itself mean that it is contaminated land within the meaning of Part 2A. The Guidance refers to Contaminant Linkages where one or more **contaminant > pathway > receptor** linkages exist. Receptors are defined as, “... *something that could be adversely affected by a contaminant, for example a person, an organism, an ecosystem, property, or controlled waters.*” Detailed definitions of the types of receptors are set out in Section 4 of the Guidance. The Guidance also refers to “*significant contaminant linkages*”, referring to those that give rise to a level of risk sufficient to justify a piece of land being determined as contaminated land.

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<sup>1</sup> This is the Water Industry Act 2003 definition, which amended the EPA 1990 definition

The local authority has the sole responsibility for determining whether any land appears to be contaminated land within its area.

## 2.0 Characteristics of Monmouthshire

### 2.1 Geographical Characteristics

Geographically, Monmouthshire is the seventh largest county in Wales covering an area of 852 sq. km. (329 sq. miles), is a rural county located in south-east Wales on the south east border with England. It is bounded by the Forest of Dean District Council, Herefordshire County Council, Powys County Council, Blaenau Gwent County Borough Council, Torfaen County Borough Council and Newport County Borough Council.

The landscape is varied and comprises high hill ranges and a predominantly rural area of countryside with market towns. Monmouthshire shares the Blaenavon World Heritage Site with neighbouring Torfaen and Blaenau Gwent. The natural environment is one of Monmouthshire's primary assets: from its highest point at Chwarel y Fan (679 metres) to the extensive coastal lowlands on the Caldicot Levels. It is home to two internationally recognised areas of natural beauty, Wye Valley Area of Outstanding Natural Beauty in the south and the Brecon Beacons National Park in the north.

Chepstow is the start of two National Cycle Network routes – the Celtic Trail heading west across the Newport Transporter Bridge and Lon Las Cymru heading north to Snowdonia. There are also 1,000 miles of public footpaths in the countryside and Chepstow is the start of the Offa's Dyke Path national trail as well as the Wales Coast path. For more sedate travel the Monmouthshire and Brecon Canal, which links Govilon and Mamhilad, celebrated its 200th anniversary in 2012.

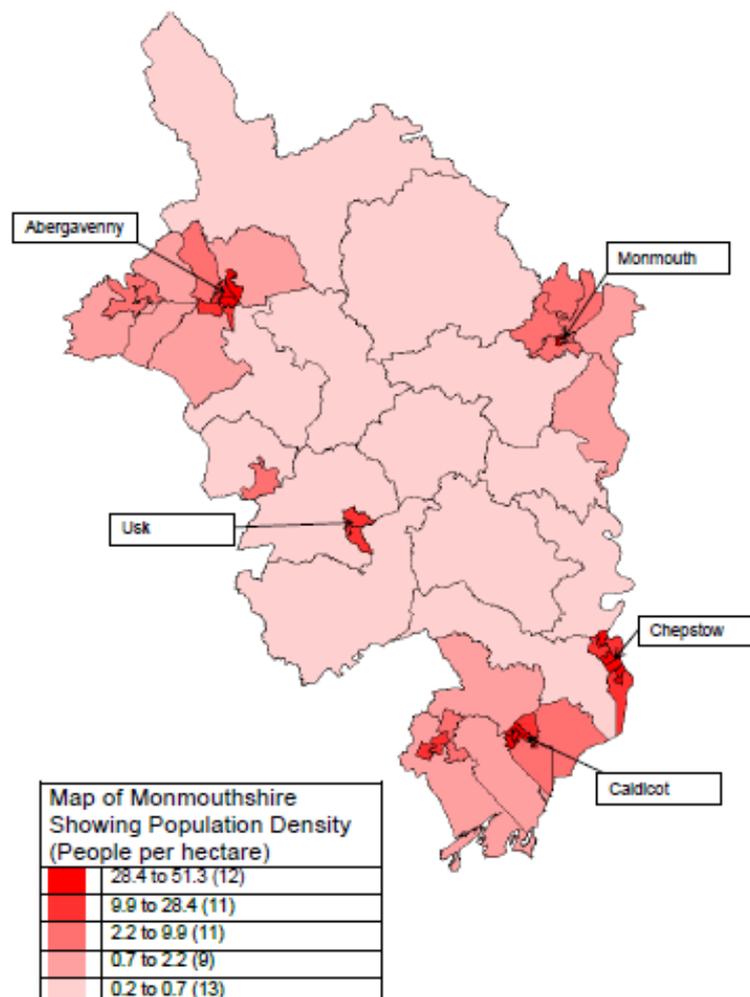
Two motorways; the M4 and M48, traverse the county while the Severn Bridge and the Second Severn Crossing connect to England. Monmouthshire is also an important rail connection with stations at Abergavenny, Chepstow, Severn Tunnel Junction (Rogiet) and Caldicot. The main railway line between London and South Wales runs through the four miles of Severn Tunnel which opened in 1886.

## 2.2 Social Characteristics

With a 2011 census population of 91,323, Monmouthshire is one of the least densely populated counties in Wales, despite the 7.6% increase between 2001 and 2011 compared with the Welsh average of 5.5%. This increase is wholly attributable to inward migration, with natural change showing negative growth.

The County has a low population density of 1.1 persons per hectare – significantly lower than the South East Wales average of 5.3 persons per hectare – reflecting the area’s rural nature. Population densities are highest in the main settlements of Abergavenny (14,000), Monmouth (10,500), Caldicot (9,600) and Chepstow (12,350), which make up half the population.

The County has a relatively high proportion of older age groups and a lower proportion of younger adults compared with the UK and Welsh averages.



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The health of Monmouthshire's population is generally better than the Welsh average, with greater life expectancies and higher proportion of residents classing themselves as being in good health (2011 Census). Fewer residents in the County suffer with a limiting long term illness compared with Wales as a whole.

### 2.3 History

Monmouthshire has a rich and varied history dating back to before Roman times, due to its important geographical position as a border county. The Roman invasion of AD 43 saw the beginning of documented history in Monmouthshire and created several forts at Abergavenny, Monmouth, and Usk with an associated garrison at nearby Caerleon.

Following the retreat of the Romans and the Norman invasion the area saw a rise in Christianity in the area.

Conflicts between Welsh rulers and Marcher lords saw the fortification of towns and the development of castles across the County such as major castles at Chepstow, Caldicot, Raglan and Abergavenny with smaller castles throughout the area.

It is estimated that Monmouthshire has at least 26 surviving castle sites and the density of castle building in this region has been claimed to be the greatest in any region in Britain, with more castles per square mile than anywhere else.

By the Act of Union of England and Wales in 1536, Wales was incorporated into the new system of English shires and Monmouthshire had representation in Parliament for the first time.

With the onset of the industrial revolution, and the expansion of the iron and coal industries in South Wales, infrastructure was continually improving with the construction of the Brecknock and Abergavenny canal and the introduction of Brunel's South Wales railway linked to the Great Western railway which provided a link to England.

### 2.4 Current Land Use

The main use of land in the County, other than residential, is agriculture and forestry. Monmouthshire contains a relatively high proportion of good quality agricultural land. It also has a high proportion of

farming land – more than double the Welsh average. Approximately three-quarters (77.1%) of the County's farming land is identified as grassland, which although high is lower than the Welsh average (89.9%). In contrast, the proportion of land used for crops and horticulture (16.7%) is significantly higher than the Welsh average (5.5%).

Current industrial activity is restricted to a number of small to medium sized industrial estates and a limited number of separately established manufacturing companies. The majority of industrial estates and companies are located in or adjacent to the main settlements in the County, i.e. Caldicot, Chepstow, Abergavenny and Monmouth. Coal mining, previously carried out in the North West part of the County in Llanelly Hill, ceased in 1930.

## 2.5 Natural & Built Environment

As a largely rural county Monmouthshire has major landscape resources and is home to internationally and nationally designated landscapes ranging from the Wye Valley AONB to the east and the Brecon Beacons National Park and the Blaenavon Industrial World Heritage Site to the north west. Four areas have been designated as Special Landscape Areas (SLA), covering a total area of 40,559 hectares and accounting for around 55% of the total local planning area within Monmouthshire.

However, many areas outside designated landscapes support more features of natural and cultural significance per square kilometre than are found within them. This diversity and richness is recognised by the high and outstanding evaluations of landscape quality as identified by LANDMAP (CCW's nationally recognised methodology for landscape assessment) which sets Monmouthshire's landscape baseline amongst the highest in Wales.

The landscape and countryside of Monmouthshire is therefore important in contributing not only to the health and well-being of Monmouthshire's residents but in supporting the tourist economy.

Monmouthshire has major biodiversity and nature conservation resources, a number of which are internationally or nationally recognised and contains the following resources:

- Part of the county lies within the Brecon Beacons National Park
- The Severn Estuary is designated as a Special Area for Conservation (SAC), Special Protection Area (SPA), Site of Special Scientific Interest (SSSI) and a Ramsar Site (Wetland of international importance).

- Four other Special Areas of Conservation (SAC) – namely the River Wye, the River Usk, the Wye Valley woodlands and the Wye Valley bat sites.
- 49 nationally designated Sites of Special Scientific Interest (SSSIs) – covering some 2,087 hectares. Most are woodland or grassland sites with others designated for their wetland or geological interest.
- Two National Nature Reserves – Fiddler’s Elbow (woodland) and Lady Park Wood.
- Local Nature Reserve at Cleddon Bog.
- Approximately 650 non-statutory Sites of Importance for Nature Conservation (SINCs) predominantly in relation to grassland and ancient and semi-natural woodland areas.
- A wide range of species (including rare /protected species) and many important habitats.

Monmouthshire has a rich built heritage and historic environment which includes:

- 31 Conservation Areas – designated for their special historic or architectural interest, covering some 1,648 hectares in total.
- 44 Historic Parks and Gardens – identified as having a Special Historic Interest, covering 1,910 hectares.
- 3 Landscapes of Outstanding Historic Interest identified by Cadw within the Monmouthshire area – namely parts of Blaenavon, the Gwent Levels and the Lower Wye Valley.
- Approximately 169 Scheduled Ancient Monuments.
- Approximately 2,200 Listed Buildings, of which 2% are Grade I, 10% are Grade II\* and 88% are Grade II. Of note, around 176 Listed Buildings have been identified as being at risk.

## 2.6 Geological Characteristics

The County's geology is characterised chiefly by the presence of Old Red Sandstone. Of the lithological groups within this system the Red Marl Group is most widespread. It consists of dark red mudstone or marl with subordinate sandstone. The mudstones contain calcareous nodules occurring either as a conglomerate or as thin bands of impure limestone.

Coal measures are present in the north western rim of the County, particularly at Llanelly Hill.

There are large reserves of sand and gravel in the Usk Valley stretching from near Glangrwyney in the North to Tredunnoch in the South, passing near to Gilwern, Govilon, Llanfoist, Abergavenny, Llanellen, The Bryn, Llanfair Kilgeddin, Bettws Newydd, Usk and Llangybi.

An outcrop of carboniferous limestone extends east north eastward from Magor and Penhow to Chepstow and Tintern and hence north eastward across the Wye Valley into Gloucestershire. A large proportion of the limestone is of dolomitic composition and is quarried for aggregate.

The coastal strip, averaging one to two miles, consists of low lying areas of marine alluvium and silt overlying rocks of the Triassic age, red and green marls (Keuper Marl), limestone conglomerates and breccias.

## 2.7 Hydrological and Hydrogeological Characteristics

Within Monmouthshire the rivers Usk and Wye represent the major source of water abstraction. From sampling carried out by the Environment Agency (EA), the river quality of both is predominantly categorised as 'very good' or 'good'. Protection of the high standards of river quality from contamination is therefore a major objective of the inspection strategy. The rivers are amongst the premier salmon fishing rivers in England and Wales and both also support a wide variety of the species of fish, plants, invertebrates and mammals that are of European significance. A number of sites of Special Scientific Interest in the County depend to some extent on groundwater seepage and flow. Therefore any contamination of groundwater in this locality could have an impact not only on the groundwater but also possibly on surface water at these protected locations.

From 1 April 2010 the Environment Agency updated their Groundwater Protection Policy to use aquifer designations that are consistent with the Water Framework Directive. These designations reflect the importance of aquifers in terms of groundwater as a resource (drinking water supply) but also their role in supporting surface water flows and wetland ecosystems. The new designations are:-

- Principal Aquifers -usually provide a high level of water storage. They may support water supply and/or river base flow on a strategic scale. In most cases, principal aquifers are aquifers previously designated as major aquifer.
- Secondary A - permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers.
- Secondary B - predominantly lower permeability layers which may store and yield limited amounts of groundwater due to localised features such as fissures, thin permeable horizons and weathering. These are generally the water-bearing parts of the former non-aquifers.

The majority of Monmouthshire is either secondary or principal aquifer. In particular the Carboniferous Limestone located to the south east of the County is an important Principal aquifer and an important source of industrial and public water supply.

There are 15 Source Protection Zones (SPZ's) in the County. SPZ's are areas over which recharge is captured by an abstraction borehole. SPZ's are designated by the Environment Agency and are delineated to protect potable water supplies against the polluting effects of human activity. Three zones are normally defined around each selected groundwater source, i.e. a borehole, well or spring. The three zones are defined as Zone I - Inner Protection Zone, Zone II - Outer Protection Zone, Zone III - Total Catchment. In addition a fourth zone, a 'Zone of Special Interest' may also be defined.

There are approximately 1,100 private water supplies in the County some of which are monitored by the Environmental Health section of the Council. There are a total of 629 surface water abstractions licensed by the EA. in the County.

### 3.0 Contaminated Land Policy

#### 3.1 Single Integrated Plan

Monmouthshire County Council (as part of the Monmouthshire Local service Board) published a Single Integrated Plan (SIP) 2013-2017 in April 2013, and is therefore relevant when setting the council's Contaminated Land Inspection Strategy in 2017.

The Vision set out in the plan is one of Sustainable and Resilient Communities, which depends on creating and maintaining its economic and environmental health, promoting equity and increasing citizen participation in planning and implementation.

The SIP states that health and well-being is central to quality of life, economic success and is interdependent with improvement in education, training and employment.

Job creation, energy use, housing, transportation, education and health are considered complementary parts of the whole and must be addressed as a system. Sustainability is a process of continuous improvement so communities constantly evolve and make changes to accomplish their goals.

To achieve this vision the SIP identified three themes:-

**Nobody is Left Behind:** we want to be a place of cohesive communities where everybody is treated with dignity and respect and has the same opportunity to achieve what they wish.

**People are Confident, Capable and Involved:** we want Monmouthshire to feel safe and people to be confident. We want to create a place where people want to be involved; they are confident in themselves and their abilities and what they contribute to their own community.

**Our County Thrives:** we want our county to thrive which includes the economy that supports our communities and families to live a good life. It also means that our environment, its range of habitats and biodiversity thrives.

The Contaminated Land Inspection Strategy will therefore seek to find and deal with land that constitutes unacceptable risks, due to contamination, to human health and the environment, and thereby support the SIP, its vision and themes.

This will help to ensure that the homes, and recreational areas where people live and play are safe from harmful contamination, by helping to ensure that new homes are built on land fit for purpose and that will not cause ill health, and by helping to bring contaminated/brownfield land back into meaningful use for the community for additional housing, growing vegetables, recreation and sporting activities, and job creation.

### 3.2 Wellbeing of Future Generations

The Well-being of Future Generations (Wales) Act 2015 is about improving the social, economic, environmental and cultural well-being of Wales. It requires public bodies, including Local Authorities, to think more about the long-term, work better with people and communities and each other, look to prevent problems and take a more joined-up approach. The purpose is to create a Wales that we all want to live in, now and in the future. To make sure all the public bodies are working towards the same vision, the Act puts in place seven well-being goals. MCC's Contaminated Land Strategy plays an important role in contributing to its duties under the Act in the following ways:-

1. A prosperous Wales – by seeking to bring back brownfield land into productive use to ensure Monmouthshire's land resource is used efficiently and proportionately.
2. A resilient Wales – by seeking to maintain and enhance a biodiverse natural water and land environment with healthy, functioning ecosystems that support social, economic and ecological resilience.

3. A healthier Wales – by working towards ensuring that peoples land and water environments is such that physical and mental well-being is maximised.
4. A more equal Wales – ensuring that Monmouthshire’s citizens are not disadvantaged by their environment no matter their background or circumstances.
5. A Wales of cohesive communities – attractive, viable, safe and well-connected communities require a safe natural environment in which to live, work and play.
6. A Wales of vibrant culture and thriving Welsh language – Monmouthshire seeks to promote heritage to encourage people to participate in sports and recreation, which requires safe land and water environments.

The Well-being of Future Generations Act, requires public bodies to act in accordance with the sustainable development principle, and therefore Monmouthshire will carry out its Contaminated Land duties in a manner that seeks to ensure that the needs of the present are met without compromising the ability of future generations to meet their own needs.

### 3.3 General Policy

Within MCC Environmental Health/Public Health is the lead service for the purpose of writing and undertaking the Strategy in consultation with other services including Development Management, Planning Policy, Waste and Street Services, Building Control, Legal Services, Sustainability and Land and Property Services. External stakeholders include Welsh Government, Natural Resources Wales, Brecon Beacons National Park Planning Authority, land and home owners, business owners and members of the public.

In accordance with the Guidance MCC’s starting point will be that land is not contaminated land unless there is reason to consider otherwise. Only land where unacceptable risks are clearly identified, after a risk assessment has been undertaken in accordance with the Guidance, will be considered as meeting the Part 2A definition of contaminated land.

MCC will only use Part 2A where no appropriate alternative to address land contamination is available. This includes bringing ‘brownfield land’ back into beneficial use without posing a risk to human health or the environment as part of the development process (planning and building control), voluntary action, or other proactive regimes to prevent/minimise contamination during industrial use, such as

the Environmental Permitting Regime and the Environmental Damage (Prevention and Remediation) Regulations 2009.

The approach of working with developers through the planning regime, to ensure brownfield land that is undergoing re-development is properly investigated, remediated and validated, was adopted as formal policy by Cabinet in February 2012, and further endorsed by Cabinet in June 2016.

The overarching objectives of the MCC's policy on contaminated land and the Part 2A regime will therefore mirror the Welsh Government's policy:

- a. To identify and remove unacceptable risks to human health and the environment.
- b. To seek to ensure that contaminated land is made suitable for its current use.
- c. To ensure that the burdens faced by individuals, companies and society as a whole are proportionate, manageable and compatible with the principles of sustainable development.

Decisions about contaminated land will not be made on a purely technical basis. There will be a variety of regulatory, commercial, financial, legal and societal factors, which also affect how particular contaminated land issues will be addressed. MCC recognises that, as with its approach to local government in general, it is important that decisions about contaminated land are defensible and transparent.

MCC recognises that there will be many situations where the decision to use Part 2A will not be straightforward, and could create a considerable financial, and possible health burden (e.g. stress related illnesses) on land/home owners and create areas of land blight. There is likely to be unavoidable uncertainty underlying some of the facts of each case.

Therefore MCC will use its judgement to strike a reasonable balance between:

- a) dealing with risks raised by contaminants in land and the benefits of remediating land to remove or reduce those risks; and
- b) the potential impacts of regulatory intervention including financial costs to whoever will pay for remediation (including the taxpayer where relevant), health and environmental impacts of taking action, property blight, and burdens on affected people.

MCC will take a precautionary approach to the risks raised by contamination, whilst avoiding a disproportionate approach given the circumstances of each case. The aim will be to consider the

various benefits and costs of taking action, with a view to ensuring that the regime produces net benefits, taking account of local circumstances.

MCC will follow the system of categorisation in the Statutory Guidance when considering whether a significant possibility of significant harm (SPOSH) exists at a site.

For each receptor, the guidance details four categories.

- Categories 1 and 2 would encompass land that is capable of being determined as contaminated land on grounds of significant possibility of significant harm to human health.
- Categories 3 and 4 would encompass land which is not capable of being determined on such grounds.

Category 4 Screening Levels (C4SLs) were published in 2014 which were developed to help decide when land is suitable for use and definitely not contaminated land. Current Soil Guideline Values (SGVs) and other Generic Assessment Criteria (GACs) are well within Category 4 and present minimal risk. The C4SLs are set at the top of category 4 and although they would still be precautionary, their purpose is to speed up the decision making process for regulators. They are also very likely to act as a suitable remediation target for the development of brownfield land.

When considering whether significant harm is being caused, or there is a significant possibility of such harm being caused, to non-human receptors, MCC will have regard to Tables 1 and 2 of the Statutory Guidance.

## 4.0 Contaminated Land Inspection Strategy

### 4.1 Inspection Duties

Part 2A requires that:

1. Section 78B(1): Every local authority cause its area to be inspected from time to time for the purpose of identifying contaminated land; and of enabling the authority to decide whether any such land is land which is required to be designated as a special site.
2. Section 78B(2): In performing these functions... a local authority shall act in accordance with any guidance issued for the purpose by the Secretary of State

The Guidance recognises two types of inspection likely to be carried out. The first is a strategic inspection, whereby information is collected to make a broad assessment of land within an authority's area and then identifying priority land for more detailed consideration. The second is a detailed inspection of particular land to obtain information on ground conditions and carrying out the risk assessments which support decisions under the Part 2A regime relevant to that land.

### 4.2 Strategic Inspection

In accordance with the Guidance MCC has taken a strategic approach to the identification of land that merits detailed individual inspection. The approach adopted was to be rational, ordered and efficient and it reflected local circumstances. The approach used is set out in this Contaminated Land Inspection Strategy, which has been formally adopted by the Council and published on its website. It will also be reviewed periodically.

### 4.3 Priorities

MCC has prioritised inspection of land in the County according to the degree of potential risk to human health and the environment, based on potential contamination present, the current land use and the sensitivity of identified receptors. Prioritisation has been given to the protection of human health and a risk-based approach has been used. The Council also took into account information provided by Natural Resources Wales on the vulnerability of controlled waters. The following is the prioritisation list that was used to aid decision making in this task.

The Council's priorities in dealing with contaminated land are:

1. To protect human health
2. To protect controlled waters
3. To protect designated eco-systems
4. To prevent damage to property
5. To prevent any further contamination of land
6. To encourage voluntary remediation
7. To encourage re-use of brownfield land

This list is presented in priority order and in all cases will have regard to significance and likelihood of the land being contaminated within the meaning of Part IIA of the Act.

In identifying significant pollution of controlled water, MCC has focused on pollution which:-

- may be harmful to human health or the quality of aquatic ecosystems or terrestrial ecosystems directly depending on aquatic ecosystems;
- which may result in damage to material property; or
- which may impair or interfere with amenities and other legitimate uses of the environment.

Before embarking on the Detailed Inspection of particular land identified by the Strategic Inspection MCC will take into account the potential for its prioritisation to give rise to property blight issues, and the social and health costs associated with it. MCC will seek to minimise or reduce such potential blight as far as it considers reasonable. MCC will be open to land owners to help resolve the status of the land themselves. For example MCC may decide that the land is, or is not contaminated land on the basis of information provided by the land owner, provided the authority is satisfied with the robustness of the information.

#### 4.4 Strategic Approach

In developing and adopting its strategic approach MCC considered the following:

- any available evidence that significant harm or pollution of controlled waters is actually being caused;
- any receptor listed in the below table;
- the extent to which any of these receptors are likely to be exposed to a contaminant, for example as a result of the use of the land, or of the geological and hydrogeological features of the area;

- the extent to which information on land contamination is already available;
- the history, scale and nature of industrial or other activities which may have in different parts of the county led to contamination of land;
- the extent to which remedial action has already been taken to deal with land contamination problems, or is likely to be taken as part of an impending re-development; and
- the extent to which other regulatory authorities are likely to be considering the possibility of harm being caused to particular receptors or the likelihood of any pollution of controlled waters being caused.

To strategically identify land for prioritisation and further inspection MCC used the following table to identify receptors and the potential land use types that they might be exposed to.

<b>Receptor</b>	<b>Land use</b>
Human Beings	Allotment Residential with garden Residential without gardens Schools or nurseries Recreational/parks, playing fields open spaces Commercial/industrial
Ecological systems or living organisms forming part of a system within protected locations	European sites, SAC's, SPA's National Nature Reserves, SSSI's Ramsar sites, Nature Reserves
Property in the form of buildings	Ancient Monuments, Listed Buildings
Property in other forms, i.e. crops, livestock, home grown produce, owned or domestic animals, wild animals subject to shooting or fishing rights	Agricultural land, Allotments and Gardens, Forestry areas, other open spaces, rivers, lakes, etc.
Controlled Waters	Surface Waters Drinking Water Abstractions Source Protection Zones Groundwater - Private Abstractions, Major Aquifers

In attempting to identify potential contaminated land within Monmouthshire, the council has made use of a number of resources including records held by MCC and records held by external companies/agencies.

Examples include:-

- Historical Maps between 1890-1970
- Historical aerial photography
- Landmark Purchased data including location of potential tanks, petrol stations and potential contaminated land sites

- Environment Agency data including registered landfill sites, waste disposal/processing sites, Authorised/Permitted activities, licensed nuclear sites.
- MCC held data including landfill site records, known pollution incidents, petroleum licensed activities, Authorised/Permitted activities, planning applications.

All of this data has now been digitised into GIS format, and is updated as and when new information becomes available

#### 4.5 Identification of receptors

In attempting to identify potential receptors the council has again made use of a number of resources including:-

- Current mapping
- Current aerial photography
- Planning applications
- Environment Agency data such as bathing waters, licensed water abstractions, source protection zones, aquifer identification.
- British Geosocial Survey Data for the identification of surface and geological features (i.e. Bedrock, Superficial, Mass Movement, Artificial, coal seams, fossil bands, mineral veins etc.).
- Ecological data such as the location of National Parks, SSSI's, Ramsar sites, SAC, SPA etc.

Again all of this data has been digitised into GIS format and so can be viewed alongside the potential contaminated land sites.

#### 4.6 Prioritisation of receptors

As part of the strategic inspection a prioritised list of the Council's aims has been devised to aid decision-making in a cost effective manner.

The Council's priorities in dealing with contaminated land will be to:

- protect human health;
- protect controlled waters;
- protect designated ecosystems;
- prevent damage to property; livestock and crops, etc.;
- prevent further contamination of land;
- encourage voluntary remediation; and

- encourage the re-use of brownfield land.

Wherever possible, the strategy will look to achieve these priorities through voluntary remediation and the redevelopment or regeneration of sites.

## 5.0 Inspection Process

MCC has adopted a strategic approach to contaminated land inspection as required by The Guidance. This has been broken down into five stages. Stages 1 and 2 form the Strategic Inspection to identify and prioritise all potential contaminated land within the County, and Stages 3, 4 and 5 form the Detailed Inspection that would be undertaken for each site identified in the Strategic stages.

### 5.1 Inspection Stages

#### **Strategic Inspection**

The two strategic inspection stages have been completed, however it is continually under review as new information comes to light through planning applications, local knowledge, reports of pollution incidences, submission of detailed site investigation reports and/or remediation reports etc.

- **Stage 1 – Survey of the County**

Stage 1 involved the collection of information on potential contaminated land (based on former or current use or known pollution incidents), current receptors and potential pathways. The data that was used to gather this information is described in Section 4 of this strategy.

This stage has been completed, although the information is continually maintained and updated as new information becomes available. There are currently 2487 identified sites within the database, however some of these would be one site that has had a two or more historical uses that had the potential to cause contamination.

New sites will be added, if they are discovered, or if they occur through a pollution incident.

- **Stage 2 – Risk Assessment & Prioritisation of sites for detailed inspection**

There is a requirement for a risk based approach to be used in prioritising which sites have the greatest potential to cause significant harm. There is no statutory methodology to what form this risk based approach should take however.

Therefore MCC purchased a risk assessment and prioritisation software called GeoEnviron that was developed by GeoKon, and sold and maintained in the UK by STM Environmental Limited. This software contains an integrated GIS system that allows the digitised maps to be overlain as layers. By identifying all potential contaminated land sites from numerous sources, additional layers containing either polygons (e.g. areas of land like factories, landfill sites), lines (e.g. railway lines) or points (e.g. potential tanks) were created. These contamination layers were then compared to the various receptor layers (i.e. current mapping, aerial photography, geological data, groundwater & surface water maps, ecological features etc.) to identify potential source, pathway receptor linkages.

Each of these sites was then separately risk assessed for the four main receptors – human health, surface water, groundwater and ecology by undertaking a Phase 1 risk assessment within the GeoEnviron software.

#### Risk assessment Process

Each type of potentially contaminated land was given a numerical score for the past use of the site, for the current use of the site, and in some cases an Other Factor Score. A different numerical value is assigned for each of the four main types of receptor – Human Health, Groundwater, Surface Water and Ecology.

Once assigned the two main numerical values were multiplied together and if necessary the Other Factor Score added, to generate a Final Risk Score (FRS) for each of the 4 receptors. These risk scores can then be used to create five prioritisation lists. Therefore the sites can be prioritised for Human Health, Surface Water, Ground Water, Ecology risk, or as a combined list for all four receptors. As stated, MCC has based its main prioritisation list on Human Health.

Once assigned a numerical value each site has been placed into a Risk Category from E (Low Risk) for those sites with scores between 0 and 9 to A1 (Very High Risk) for those site with scores above 70.

The past land use scores (PHS – Pathway Profile Score) are based typically on DoE Industry Profile documentation that identifies the potential contamination for each industry and the likelihood of it

being present. The current use scores (RSS - Receptor Sensitivity Scores) are based on the sensitivity of the current land use. For example allotments, gardens etc. would have a higher score than a car park or factory.

The scores were derived by GeoKon and STM Environmental, but have been tweaked by the GeoEnviron user base under co-ordination by STM Environmental to ensure the score system is robust and accepted by numerous local authorities. The OFS (Other Factor Score) can be used to either increase or decrease the risk rating for specific known information (for example if a site has been remediated, or if there is a potential for ground gas to migrate offsite).

➤ PHS – Pathway Profile Score

The PHS ranges from 1 (e.g. disturbed ground) to 6 (e.g. Chemical Manufacturing) with 1 being the lowest potential hazard and 6 being the highest.

➤ RSS – Receptor Sensitivity Score

The RSS value can be either 0, 2, 4, 6, 8, 10 or 12. 0 would be used if there was no identified receptor (e.g. no ground water, no surface water, and no land use), 12 would be used if there was a very high risk to the receptor (e.g. Houses with Gardens, Source Protection Zone, surface water on site etc).

➤ OFS – Other Factor Score

The OFS is an addition rather than a multiplication. There are currently 11 OFS that have been agreed by STM Environmental and the wider GeoEnviron user group. The scores can be a negative value to reduce the risk, (the lowest is -20 which would be used if there is evidence the site was remediated satisfactorily) or positive values to increase the risk (the highest is 30 which would be used if there is visual confirmation of contamination on the site).

➤ FRS – Final Risk Score

Each site will have four final risk scores (human health, ecology, ground water, surface water) and a combined total adding all four risk scores together. The Final Risk Score is then use to place each site into a Risk Category

The following table shows the Risk Category and the number of sites in the band for the Human Health risk assessment

Risk Category	Category Name	FRS range	Number of sites
<b>A1</b>	Very High	70+	9
<b>A2</b>	High	49 - 69	36
<b>B</b>	Medium-High	36 - 48	87

<b>C</b>	Medium	20 - 35	264
<b>D</b>	Low-Medium	10 - 19	393
<b>E</b>	Low	0 - 9	1691

### **Detailed Inspection**

With the Strategic Inspection stages completed (but continually under review) the next step for MCC is to work through the prioritisation list for Human Health, working from Very High Risk sites down to Low Risk. The next three stages describe the process.

- **Stage 3 – Detailed Inspection**

Before proceeding to detailed inspection for a specific site, a validation process must be completed to ensure the factors influencing the prioritisation of a site are accurate. Once this has been established and a potentially significant contaminant linkage has been identified, a detailed inspection is required to quantify the level of risk.

A desk based study would be the first part in this process, (and may be enough if it can show that the potential risk is not present) followed by intrusive investigation to assess ground conditions and associated contaminant concentrations. The output from this inspection stage should provide sufficient information to categorise the site as required by statutory guidance into one of the four categories:-

- Categories 1 and 2 would encompass land that is capable of being determined as contaminated land on grounds of significant possibility of significant harm to human health.
- Categories 3 and 4 would encompass land which is not capable of being determined on such grounds.

- **Stage 4 - Determination**

The local authority is responsible for determining whether land is contaminated land and has a duty to do so where:

- Significant harm is being caused to a human or relevant non-human receptor;
- There is a significant possibility of significant harm being caused to a human or relevant non-human receptor;

- Significant pollution of controlled waters is being caused; or
- There is a significant possibility of significant pollution of controlled waters being caused.

In fulfilling this role, MCC will act in accordance with relevant statutory guidance, seeking expert advice, if required.

For sites that are determined as contaminated land, following a thorough risk assessment, the Council will add the site to the Contaminated Land Register and produce a risk summary, in a simple and easy to understand format, and this will form part of the record.

- **Stage 5 - Remediation**

When land is determined as contaminated land, the local authority must secure the remediation of that land. The Statutory Guidance will be followed to ensure the significant pollutant linkages identified by the inspection process are removed or disrupted to such a level that they no longer present a significant risk.

Further information including an outline of the processes to be completed in each stage is provided in the following sections.

- **Planning Regime**

Whilst considered separately to the five Part IIa inspection stages described above, completion of Stage 1 and Stage 2 has meant that the Environmental Health Section can work more closely with the Development Control Section through the planning regime. The data obtained in Stages 1 and 2, has been provided to the Planning Authority to enable them to better consult with environmental health when potential contaminated land (or land near potential contaminated land) is redeveloped. In this way full site investigation, risk assessment, and if necessary remediation and validation is undertaken by the developer to the satisfaction of the Environmental Health Section. This is undertaken either prior to planning consent or by conditioning the Planning Consent.

As detailed in Section 3.2, this is the Council General Policy and was formally adopted by Cabinet in February 2012, and further endorsed in June 2016, and reflects MCC's and Welsh government policy to ensure the burdens faced by individuals, companies and society as a whole are proportionate, manageable and compatible with the principles of sustained development, whilst protecting human

health (from stress and financial hardship as well as from contamination) and harm to the wider environment.

## 5.2 Inspection Programme

The Statutory Guidance does not prescribe when the inspection stages must be completed by, however it does require that each local authority set its own timescales. The below table sets out MCC's timescale for the completion of each stage of the inspection process.

Stage	Task	Target Completion Date
1	Survey of County	Completed
2	Risk Assessment & Prioritisation	Completed
3	Detailed Inspection of individual sites	As urgent inspections arise
4	Determination of individual sites	As required following stage 3
5	Remediation of individual sites	Within 12 months of stage 4
<b>Investigation &amp; remediation through the planning regime</b>		On going

With regards to Stage 3, detailed inspection of individual sites will be undertaken where MCC finds evidence of actual contamination that is causing, or has the significant possibility, to cause significant harm to a human or non-human receptor or controlled water.

In addition a detailed inspection could be undertaken if funding (either from an external or internal source) is made available in the future for a specific site. However the funding would have to be sufficient to enabled full investigation and remediation without causing land blight or undue distress to the land owner/occupiers in accordance with the policy set out in Section 3.2

## 5.3 Additional sites & site changes

If an additional site that is not on the prioritisation list comes to light and has the potential to be contaminated land under the Part 2A definition, then a process of investigation will be carried out in the same way as those sites already risk assessed. The additional site would then be prioritised, and a detailed inspection undertaken if the available information indicated that urgent action should be taken.

If the status of a site should change, (for example a change in receptor or pathway or further information regarding the contamination on the site), the site will be reassessed and re-prioritised as appropriate. If it appears to the council that the risks now posed by the site are such that a detailed inspection should be carried out by the council then this will be done with due regard to current best practice and published guidance.

Once a detailed inspection of the land in question has been completed and sufficient information has been gathered to indicate that regulatory action is necessary, land likely to be in Category 1: Human Health or Water in the Statutory Guidance, a risk summary will be produced as required under Section 3 of the Statutory Guidance. This summary will be communicated to all identified stake holders.

#### 5.4 Public Register

The council is required to maintain a public register of contaminated land. The register will be held by the Environmental Health Section. It will be paper-based and be accessible on request by members of the public during office hours, Monday to Friday.

The Regulations clearly specify the information that must be recorded on this register. This register will therefore include:

- Remediation Notices
- Details of site reports obtained by the Council relating to Remediation Notices
- Remediation Declarations, Remediation Statements and Notifications of Claimed Remediation
- Designation of sites as "special sites"
- Any appeals lodged against Remediation and Charging Notices
- Convictions

The public register will not include details of historic land use and other records used in the investigation of potentially contaminated land.

A list of sites that are on the public register can be made available electronically.

## 5.5 Strategy Review

The strategy will be reviewed following changes in legislation, statutory guidance or other relevant factors, or in five years.

## 6.0 Determination of Contaminated Land

The EPA 1990 requires that in determining whether any land appears to be contaminated land, a local authority shall act in accordance with the Statutory Guidance.

### 6.1 Deciding that land is not contaminated land

If MCC inspects land that it then considers is not contaminated land (e.g. if, following inspection and assessment, it is found that there is little or no evidence to suggest that it is contaminated land) the authority will issue a written statement to that effect (rather than coming to no formal conclusion) to minimise unwarranted blight.

The statement will make clear that on the basis of its assessment, the authority has concluded that the land does not meet the definition of contaminated land under Part 2A for the current land use.

Due to the nature of soil contamination, it is not possible to know the exact contamination status of any land with certainty and scientific understanding of risk evolves over time. However this lack of certainty will not stop MCC from deciding that land is not contaminated land as the starting assumption of Part 2A is that land is not contaminated unless there is a reason to consider otherwise.

MCC will keep a record of its reasons for deciding that land is not contaminated land and inform the owners of the land of its conclusion and give them a copy of the written statement. MCC will also consider the merits of informing other interested parties (for example occupiers of the land and owners and occupiers of neighbouring land) and whether to publish the statement. The statement will be issued within a timescale that the authority considers to be reasonable, having regard to the need to minimise unwarranted burdens to persons likely to be directly affected, in particular the landowner, and occupiers or users of the land where relevant.

## 6.2 Determining that land is contaminated land

The local authority has the sole responsibility for determining whether any land appears to be contaminated land. It cannot delegate this responsibility (except in accordance with section 101 of the Local Government Act 1972). However, in making such decisions MCC may rely on information or advice provided by another body such as Natural Resources Wales, or a suitably qualified experienced practitioner appointed for that purpose.

There are four possible grounds for the determination of land as contaminated land (with regard to non-radioactive contamination):

- a) Significant harm is being caused to a human, or relevant non-human, receptor.
- b) There is a significant possibility of significant harm being caused to a human, or relevant non-human, receptor.
- c) Significant pollution of controlled waters is being caused.
- d) There is a significant possibility of significant pollution of controlled waters being caused.

Before making any determination, the local authority should have identified one or more significant contaminant linkage(s), and carried out a robust, appropriate, scientific and technical assessment of all the relevant and available evidence. If MCC considers that conditions for considering land to be contaminated land do not exist it will not decide that the land is contaminated land.

In the case of any land which, following determination as contaminated land, would be likely to meet one or more of the descriptions of a "Special Site" set out in the Contaminated Land Regulations 2006, MCC will consult Natural Resources Wales (NRW) before deciding whether or not to determine the land and provide them with a draft record of the determination. MCC will take the NRW's views into full consideration and it will strive to ensure it has their agreement to its decision (although the decision is for the authority to make subject to the provisions of Part 2A).

## 6.3 Physical extent of land to be determined

It is for the local authority to decide the physical extent of land that should be determined. MCC will strive to ensure that there are grounds to consider that all the land in question can reasonably be considered to be contaminated land. In practice, often it is likely that contamination will not be uniformly spread across land, and it may not be clear precisely where the boundaries of the

contamination lie. In such cases MCC will use its judgement on the extent of land it might reasonably consider to be contaminated land.

MCC will review its decision on the physical extent of the land to be determined (or that has been determined) if at a later date it becomes aware of relevant further information. For example this may be the case if, during remediation, it becomes clear that the extent of contamination is significantly greater or less than was thought when the determination was made.

MCC may sub-divide the relevant land for the purposes of determination by issuing separate determinations for smaller areas of land which form part of a larger area of contaminated land. In deciding whether (and if so how) to do this, MCC will take into account: (i) the nature of the contamination; (ii) the degree of risk posed, and whether this varies across the land; (iii) the nature of the remediation which might be required; (iv) the ownership of the land; and (v) the likely identity of those who may bear responsibility for the remediation.

#### 6.4 Informing interested parties

Before making a determination, MCC will inform the owners and occupiers of the land (and any other person who appears to the authority to be liable to pay for remediation) of its intention to determine the land (to the extent that the authority is aware of these parties at the time) unless it considers there is an overriding reason for not doing so.

MCC will also consider:

- a) Whether to give such persons time to make representations (for example to seek clarification of the grounds for determination, or to propose a solution that might avoid the need for formal determination) taking into account: the broad aims of regime; the urgency of the situation; any need to avoid unwarranted delay; and any other factor the authority considers to be appropriate.
- b) Whether to inform other interested parties as it considers necessary, for example owners and occupiers of neighbouring land.

If MCC determines land as contaminated land, it will give notice of that fact to:

- a) Natural Resources Wales;
- b) the owner of the land;

- c) any person who appears to the authority to be in occupation of the whole or any part of the land; and
- d) each person who appears to the authority to be an appropriate person; in accordance with section 78B (3) of Part 2A.

*In respect of point (d) the Statutory Guidance recognises that in some cases the authority may not have identified the appropriate person(s) at the time the determination is made, in which case the requirement to give notice to such persons would not apply.*

## 6.5 Postponing determination

Determination will be postponed if the land owner or some other person undertakes to deal with the problem without determination, and if MCC is satisfied that the remediation will happen to an appropriate standard and timescale. If postponement is considered any agreement MCC enters into will not affect its ability to determine the land in the future (e.g. if the person fails to carry out the remediation as agreed).

MCC may postpone determination of contaminated land if a significant contaminant linkage would only exist if the circumstances of the land were to change in the future within the bounds of the current use of the land as described in paragraph 3.5 of the Statutory Guidance (e.g. if a more sensitive receptor were to move onto the land or a temporarily interrupted pathway were to be reactivated). If MCC chooses to do this, it will keep the status of the land under review and take reasonable measures to ensure that the postponement does not create conditions under which significant risks could go unaddressed in future. Alternatively MCC may decide to determine the land but postpone remediation.

## 6.6 Record of the determination

MCC will prepare a written record of any determination that land is contaminated land. The record will clearly and accurately identify the location, boundaries and area of the land in question, making appropriate reference to Ordnance Survey grid references and/or Global Positioning coordinates. The record will be made publicly available by means to be decided by the authority.

The record will explain why the determination has been made, including:

- a) The risk summary required by Section 3 of the Guidance, and where not already covered in the risk summary: (i) a relevant conceptual model comprising text, plans, cross sections,

photographs and tables as necessary in the interests of making the description understandable to the layperson; and (ii) a summary of the relevant assessment of this evidence.

- b) A summary of why the authority considers that the requirements of the Statutory Guidance have been satisfied.

## 6.7 Reconsideration, revocation and variation

MCC will reconsider any determination that land is contaminated land if it becomes aware of further information which it considers significantly alters the basis for its original decision. In such cases the authority will decide whether to retain, vary or revoke the determination.

MCC will reconsider any determination of contaminated land if remediation action has been taken which, in the view of the authority, stops the land being contaminated land. In such cases MCC will issue a statement to this effect.

If MCC varies or revokes a determination, or issues a statement it will record its reasons for doing so alongside the initial record of determination in a way that ensures the changed status of the land is made clear. If the reconsideration results in relevant documentation, such as a revised determination notice, copies of this documentation will also be recorded. MCC will ensure that interested parties are informed of the decisions and the reasons for it, including the owner of the land; any person who appears to the authority to be in occupation of the whole or any part of the land; any person who was previously identified by the authority to be an appropriate person; and Natural Resources Wales.

## 7.0 Remediation

Once the land has been identified as contaminated land and the relevant persons have been notified, a process of consultation will begin to determine what remediation is required on that land.

The aim of remediation is to remove or take measures to remedy the identified significant contaminant linkages, or permanently to disrupt them to ensure they are no longer significant and that risks are reduced to an acceptable level, where the land would no longer qualify as contaminated land. Where this is not achievable, consideration will be given to remediation to a lesser standard to minimise risks as far as possible.

Once consideration has been given to how the site should be remediated, MCC will (where appropriate) issue a remediation notice to require such remediation. The enforcing authority for the purposes of remediation may be MCC, or natural Resources Wales, which takes on responsibility once land has been determined if the land is deemed to be a “special site”. The rules on what land is to be regarded as special sites, and various rules on the issuing of remediation notices, are set out in the Contaminated Land (Wales) Regulations 2006.

## 7.1 Definition of remediation

Section 78A (7) of EPA 1990 provides the following definition for “remediation”:-

- a) The doing of anything for the purpose of assessing the condition of –
  - (i) The contaminated land in question;
  - (ii) Any controlled waters affected by that land; or
  - (iii) Any land adjoining or adjacent to that land;
- b) The doing of any works, the carrying out of any operations or the taking of any steps in relation to any such land or waters for the purpose-
  - (i) Of preventing, or minimising, or remedying or mitigating the effects of, any significant harm, or any pollution of controlled waters, by reason of which the contaminated land is such land; or
  - (ii) Of restoring the land or waters to their former state; or
- c) The making of subsequent inspections from time to time for the purpose of keeping under review the condition of the land or waters.

## 7.2 Remediation Notices

Where MCC makes a determination of contaminated land a remediation notice will be served on the appropriate person(s) following a three month consultation period unless there are no viable remedial options, voluntary remediation is being, or will be, undertaken without the need for a notice, or there is a need for urgent action where there is imminent risk of serious harm.

In considering whether the requirement to undertake the remediation is reasonable, MCC will consider:

- a) The practicability, effectiveness and durability of remediation including whether it is feasible for the appropriate person to complete the remediation specified within the timescale given, and whether this will remain a robust and effective solution for a sufficient length of time;
- b) The health and environmental impacts of the chosen remedial options including whether there are any direct or indirect health effects to workers or people affected by the works, or potential for damage to the countryside, protected building and other sites of importance caused by the work;
- c) The financial cost which is likely to be involved at all stages of the process including preparation, remediation, monitoring, maintenance and value of the land; and
- d) The benefits of remediation with regard to the seriousness of the harm or pollution of controlled waters in question including increased land value following remediation and the likelihood of an occurrence or recurrence of pollution.

A remediation notice will specify what remediation is required and the timescales in which this must be done. When considering what remedial action is required, MCC will consult other regulatory bodies and have due regard for relevant technical guidance provided by regulatory, professional or technical organisations or act on the advice of a suitably qualified practitioner employed for that purpose.

A remediation declaration will be prepared in situations where MCC itself has caused or knowingly permitted the land to become contaminated land and is responsible for its remediation.

In accordance with the requirements of s78R of the Environmental Protection Act 1990, a copy of any remediation notices or remediation declarations prepared will be placed on the public register.

In the event that new information comes to light that alters the extent of remediation required or an alternative remediation scheme is proposed by the responsible person, it is possible to revise or revoke all or part of the notice.

Remediation notices will contain information on the right to appeal. The appeal period is twenty-one days from service of the notice and any appeals must be made to the Welsh Ministers who could quash the notice or confirm it with or without modification.

Any person failing to comply with the requirements of a remediation notice is guilty of an offence and may be fined following successful prosecution.

### 7.3 Securing remediation without a remediation notice

Before serving a remediation notice, MCC will have consideration to section 78H (5) (a) - (d) of Part 2A. As such MCC will not serve a remediation notice if it is satisfied that appropriate measures are being taken by way of remediation without the serving of a remediation notice.

MCC will consider that appropriate measures are being taken if:

- a) it is satisfied that steps are being taken that are likely to achieve a standard of remediation equal to, or better than, what the authority would otherwise have specified in a remediation notice; and
- b) it is satisfied that the timescale in which remediation is planned to take place is appropriate.

MCC will actively consider the merits and likelihood of achieving remediation without recourse to a remediation notice before issuing a remediation notice.

### 7.4 Financial cost of remediation

The cost of remediation of contaminated land can be considerable, and therefore the cost must be reasonable and proportionate to the seriousness of the harm. When considering the reasonableness of costs, MCC will take into account the direct financial costs likely to be caused by remediation. This would include:

- a) The cost of preparing for remediation to take place (e.g. feasibility studies, design of remedial actions, management costs, and the cost of relevant assessment actions).
- b) The costs of undertaking the remediation and making good afterwards.
- c) The cost of managing the land after remediation e.g. managing or maintaining remediation measures and monitoring or assessing.
- d) Relevant disruption costs e.g. land depreciation, or other loss or damage.
- e) Estimating the increase in the financial value and utility of the land as a result of remediation and whether such increase in value and utility would accrue to the person(s) paying for remediation.

The identity or financial standing of the appropriate person are not relevant when considering the remediation actions, although they may be relevant in deciding whether the cost of remediation can be imposed on such persons.

In making any cost recovery decision, MCC will have regard to the following principles:

- An overall result which is fair and equitable as possible to all who may have to meet the costs of remediation, including national and local taxpayers; and
- The 'polluter pays' principle, by virtue of which the costs of remediating pollution are to be borne by the polluter. MCC will therefore consider the degree and nature of responsibility of the Appropriate Person for creation, or continued existence, of the circumstances, which lead to the land in question being identified as contaminated land.

In general, this will mean that the Council will seek to recover, in full, its reasonable costs unless it waives or reduces the recovery of costs to:

- Avoid any hardship which the recovery may cause to the appropriate person; or
- To reflect one or more of the specific considerations set out in the Statutory Guidance.

MCC will have regard to the Statutory Guidance when determining the extent to which it should seek to recover the costs of remediation which it has carried out and which it is entitled to recover.

## 7.5 Benefits of remediation

In considering the benefits of remediation, MCC will consider:

- a) the seriousness of any harm or pollution of controlled waters and the various factors that led the land to be determined (e.g. the scale of harm or pollution that might already be occurring; or the likelihood of potential future harm or pollution and the likely impact if it were to occur);
- b) the context in which the effects are occurring or might occur; and
- c) any estimated increase in the financial value and utility of the land as a result of remediation, and who would benefit from such an increase. In considering such benefits MCC will decide on a case by case basis whether or not to describe such benefits (whether direct or indirect) in terms of monetary value or whether to make a qualitative consideration.

Where the significant harm is an “ecological system effect” or the pollution of controlled waters, MCC will take into account any advice received from Natural Resources Wales, when considering the benefits of remediation.

## 7.6 Health and environmental impacts of remediation

In considering the costs of remediation and the seriousness of harm or pollution, MCC will also consider other costs and impacts that may, directly or indirectly, result from remediation. This would include consideration of:

- a) potential health impacts of remediation; and
- b) environmental impacts of remediation.

In considering such impacts MCC will decide whether or not to describe such costs in terms of monetary value or whether to make a qualitative consideration on a case by case basis.

Potential health impacts of remediation would include:

- a) direct health effects (e.g. resulting from contaminants being mobilised during remediation, and worker safety); and
- b) indirect health effects such as stress related effects that may be experienced by affected people, particularly local residents.

In making this consideration MCC will also be mindful of the health benefits of remediation and the potential health impacts of not remediating the land.

With regard to environmental impacts of remediation, MCC will consider whether remediation can be carried out without disproportionate damage to the environment, and in particular:

- a) without significant risk to water, air, soil and plants and animals;
- b) without causing a nuisance through noise or odours;
- c) without adversely affecting the countryside or places of special interest; and
- d) without adversely affecting a building of special architectural or historic interest.

MCC will strive to minimise impacts of remediation on health and the environment (and comply with any relevant regimes that might require this, for example the health and safety, planning and environmental permitting regimes). If MCC considers that health or environmental impacts of a particular remediation approach are likely to outweigh the likely benefits of dealing with the risk posed

by the contamination, it will consider whether an alternative approach to remediation is preferable, even if it may deliver a lower standard of remediation than other techniques.

## 7.8 Revision of remediation notices

MCC will consider revising a remediation notice if it considers it is reasonable to do so. In particular this would apply to cases where new information comes to light which calls into question the reasonableness of an existing remediation notice. For example, this might be the case where information that comes to light during remediation shows that some remediation actions are no longer necessary, or that additional or alternative actions are necessary.

If MCC has issued a remediation notice but the person concerned later proposes an alternative remediation scheme, MCC would consider whether to amend or revoke the remediation notice. It is for the authority to decide the degree of consideration it gives to such a proposal. If MCC decides to do this, it must be satisfied that the standard of remediation and the timescale in which it would take place are in line with the Statutory Guidance.

## 7.9 Verification

Any remedial treatment action should include appropriate verification measures. In arranging for such measures, MCC will ensure that the person responsible for verification is a suitably qualified experienced practitioner.

## 8.0 Liability

The main provisions for the establishment of liability are set out in Part 2A of EPA 1990.

Land may be declared contaminated upon the identification of one significant contaminant linkage, however full liability cannot be decided until all significant contaminant linkages have been identified. Apportioning liability can be a complex process, and MCC will have full regard to the legislation and Statutory Guidance when doing so.

### 8.1 Summary of Class A and Class B liability

In summary the procedure would typically have five stages:

a) Identification of liable persons:

The authority makes an initial identification of persons who may be responsible for paying for remediation actions. In doing this, each significant contaminant linkage is treated separately (unless it is reasonable to treat more than one linkage together because the same parties are liable). The authority first looks for persons who caused or knowingly permitted each linkage. These are known as “Class A” persons.

If no Class A persons can be found, the authority usually seeks to identify the owners or occupiers of the land. These are known as “Class B” persons.

This step does not apply to linkages that relate solely to the pollution of controlled waters. The persons responsible for each linkage make up a “liability group” for that linkage. Liability groups may consist of one or more persons, and can be referred to as “Class A liability group” or a “Class B liability group” to reflect the nature of persons in the group.

If no Class A or Class B persons can be found liable, the linkage is known as an “orphan linkage”, for which there are separate procedures to follow.

b) Remediation actions:

The authority decides what remediation actions relate to which linkages. The Statutory Guidance uses the term “remediation action” to mean any individual thing which is being, or is to be, done by way of remediation. A “remediation package” is all the remediation actions which relate to a particular linkage. A “remediation scheme” is the complete set of remediation actions (relating to one or more linkages) to be carried out with respect to the relevant land or waters.

c) Attribution of liability to liability groups:

The authority attributes responsibility between liability groups. The Statutory Guidance uses the term “attribution” to mean the process of apportionment between liability groups.

d) Exclusions:

The authority considers (with regard to any liability group with two or more members) whether members of the group should be excluded, in accordance with the rules for exclusion set out in The Statutory Guidance. The Guidance uses the term “exclusion” to mean any decision by the enforcing

authority that a person is to be treated as not being an appropriate person in accordance with section 78F(6) of Part 2A of EPA 1990.

e) Apportioning liability between members of liability groups:

The authority decides how to apportion liability between the members of each liability group who remain after any exclusions have been made. The Guidance uses the term “apportionment” to mean a decision by the authority dividing the costs of carrying out any remediation action between two or more appropriate persons in accordance with section 78F(7) of Part 2A of EPA 1990.

## 8.2 Orphan linkages

An “orphan linkage” may arise where:

- a) the significant contaminant linkage relates solely to the significant 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 otherwise be liable are exempted by one of the relevant statutory provisions.

The Statutory Guidance provides details, however in summary where only one significant contaminant linkage has been identified, and that is an orphan linkage, the enforcing authority should itself bear the cost of any remediation which is carried out. Where two or more significant contaminant linkages, of which some are orphan linkages, have been identified, the enforcing authority will need to consider each remediation action separately.

## 8.3 Special Sites

MCC and Natural Resources Wales (NRW) can both identify potential ‘Special Sites’ but a site cannot be designated a Special Site until the Council determines it as ‘Contaminated Land’.

The Statutory Guidance provides the following process:

- a) If the Council requests an inspection of a potential Special Site, the Guidance requires that NRW prioritise this site alongside its other potential Special Site inspection requests.
- b) Once the Council is satisfied that a site has been determined as Contaminated Land and designated a Special Site, the Council will notify NRW of this fact in writing. If NRW disagrees

on the designation, it must notify the Council of that fact in writing within 21 days. If NRW agrees or fails to inform the Council within 21 days, then the land will be designated a Special Site.

- c) The responsibility of securing remediation then passes to NRW although the Council must complete the formal notification process. This will involve the Council also notifying the owner, occupier and appropriate person with respect to that site or land.

## 9.0 Consultees

The following external bodies were consulted on the draft Contaminated Land Strategy before being presented to Cabinet for final approval.

- Welsh Government
- Natural Resources Wales
- Torfaen County Borough Council
- Newport City Council
- Blaenau Gwent County Council