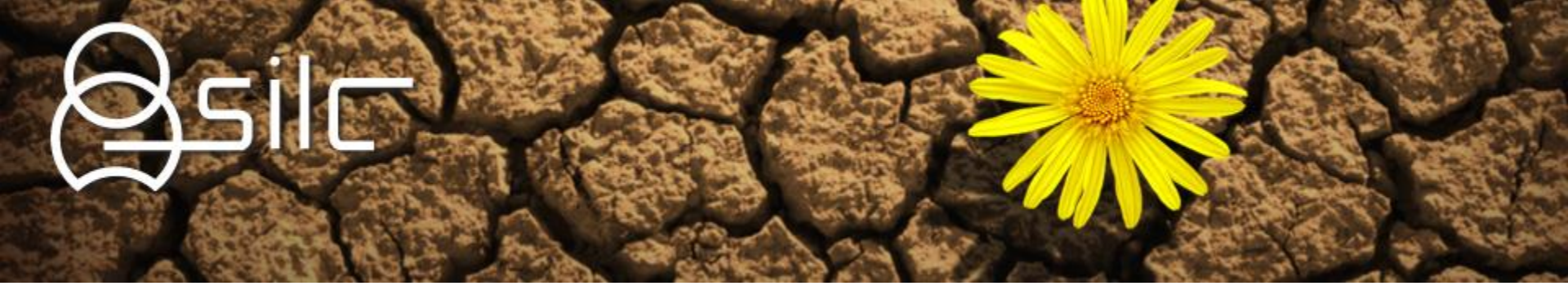
National Quality Mark Scheme Training and Assessment

September 2016

Purpose of the briefing

- Understand the scope and structure of the National Quality Mark Scheme (NQMS)
- Understand the operation of the NQMS
- Understanding of the requirements for becoming a Suitably Qualified Person (SQP) and the consequent responsibilities
- Understand the purpose and structure of the Planning Framework and Guidance
- Be aware of the regulatory areas where NQMS might grow to cover
- Understand the need for competence in team members
- Be aware of complementary guidance;
- Be aware of complementary networks and groups



The scope and structure of the NQMS

Overview and objectives (1)

- The Land Forum was set up to promote the sustainable use of land. It brings together private and public sector organisations to take an open and forward looking strategic overview of current and future land use issues;
- Its members include public and private sector organisations representing industry, land owners, consultants, regulators and government; many are active in dealing with land contamination;
- The Land Forum has developed the NQMS as a better regulation initiative;
- It recognises that whilst standards have improved greatly over the last decade, reports can still be variable in quality;
- The need for improvement and accredited competence is recognised.
- The NQMS is expected to play a significant role in this

Overview and objectives (2)

References to competence in National PPF (England)

NPPF

- ***Para 121.*** Planning policies and decisions should also ensure that;
  - Adequate site investigation information prepared by a competent person is presented.
- ***Glossary.*** Competent person (to prepare site investigation information): A person with a recognised relevant qualification, sufficient experience in dealing with the type(s) of pollution or land instability and membership of a relevant professional organisation.
  - No reference to competence in supplementary guidance

Overview and objectives (3)

References to competence in Part 2A Statutory Guidance (England)

Part 2A Statutory Guidance

- ***Para 3.18-3.20.*** Using external expertise during risk assessment
  - When choosing specialist consultants, local authorities should strive as far as possible to ensure they are appropriately qualified and competent to undertake the work.

Overview and objectives (4)

- The NQMS is designed to ensure submissions on land contamination management work meet necessary technical and regulatory standards;
- Reports such as:
  - desk studies,
  - site investigations,
  - risk assessments,
  - remediation options appraisals;
  - remediation verification reports;

  ….should align with good practice and be signed off by a suitably qualified and experienced person (SQP).

Overview and objectives (5)

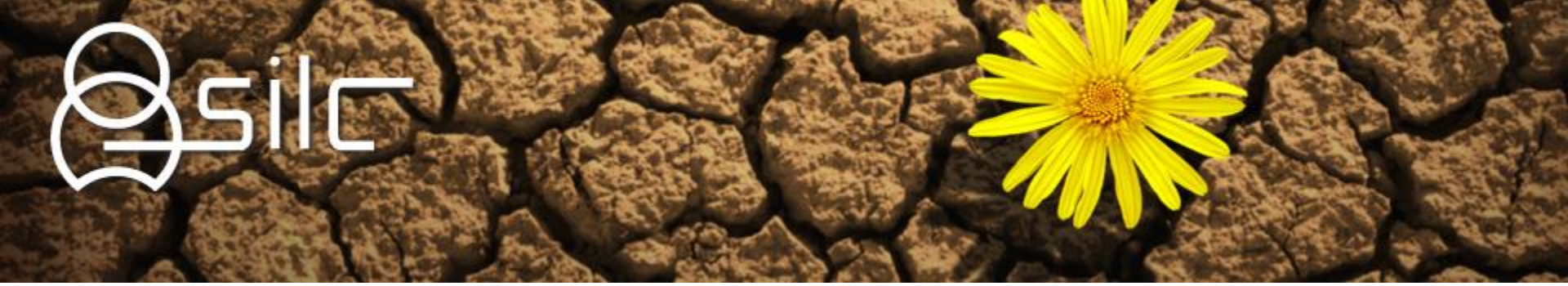
- The SQP should ensure that:
  - The work has been planned, undertaken and written up by competent people who have relevant experience and/or qualifications in their respective disciplines
  - The underlying data has been collected in line with established good practice procedures and its collection has been subject to control via established quality management systems.
  - The data has been processed, analysed and interpreted in line with established good practice and any specific advice provided by the relevant regulatory authorities or regulatory bodies
  - The reports set out recommendations or conclusions that are substantiated by the underlying data and are based upon reasonable interpretations.
  - Any limitations in the data or uncertainties in the analysis are clearly identified along with the possible consequences of such limitations.

Overview and objectives (6)

- The scheme seeks to ensure that:
  - All legislative requirements connected to management of land contamination have been met; and
  - that regulatory intervention under Planning, Part 2A and Environmental Permitting regimes is highly unlikely
- The scheme is voluntary and the procedure simple;
- It should work with existing quality management systems;
- It should be able to rely upon competence frameworks such as the National Brownfield Skills Framework or in-house company competence frameworks
- The NQMS has the support in principle of DCLG and DEFRA.

Overview and objectives (7)

- The scheme provides a “Quality Mark” to give assurance to problem holders and regulators that land contamination matters have been adequately addressed and managed;
- It is expected that this will help speed up the regulatory permissions or decisions on regulatory compliance by getting submissions right first time, or at the very least reducing on-going requests for further clarifications or data;
- It is hoped that increased efficiency generated by the scheme will result in savings for both public and private sector participants;
- Getting submissions right first time should also allow regulators more time to deal with problematic sites outside the scheme.



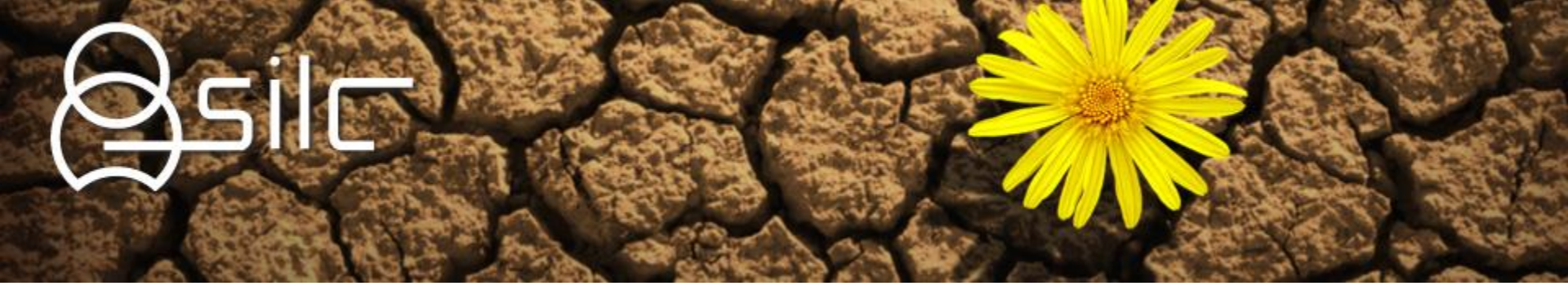
Applicability of the NQMS

Applicability of the NQMS (1)

- The scheme is voluntary, and there is no legal requirement to work within the scheme;
- However, it is expected to bring significant benefit to both regulator and regulated;
- It covers all reports concerning land contamination management prepared for the purpose of establishing or managing environmental liabilities, including:
  - desk studies and preliminary risk assessments;
  - site investigations;
  - generic and detailed quantitative risk assessments;
  - remediation options appraisals and strategies;
  - remediation verification and monitoring reports.

Applicability of the NQMS (2)

- In terms of regulatory regimes, the scheme initially covers:
  - Submissions for planning permission or discharge of a condition under the Town and Country Planning Act (1990) in relation to possible land contamination of the site;
- It is hoped, in due course, to also cover:
  - Work related to sites being considered as possible “contaminated land” under Part 2A of the Environmental Protection Act (1990);
  - Work related to soil or groundwater pollution arising during the operation of a permitted site or in connection with surrender of an environmental permit, under Environmental Permitting Regulations (2011).
- The scope of the NQMS may expand in the future



The operation of the NQMS and the role of the SQP in this

Operation of the NQMS (1)

- Definitions:
- **Scheme Administrator** – the organisation responsible for maintaining the NQMS website, online declarations system, access to an up to date register of SQPs, auditing and complaints procedure and records of individual declarations, currently CL:AIRE on behalf of the Land Forum;
- **Suitably Qualified Person** – the person who implements the requirements of the NQMS and applies the “Quality Mark” to reports;
- **SQP Provider** – the organisation which assesses applicants for the role of SQP and administers the application and exam process, currently SiLC Register;

Operation of the NQMS (2)

- Definitions continued:
- **NQMS Steering Panel** – a steering panel of individuals nominated by the Land Forum, and drawn from its membership, who provide advice to the Scheme Administrator and SQP Provider on behalf of the Land Forum. The panel is responsible for:
  - Making decisions on prospective changes in the scheme;
  - Deciding on any changes in the delivery roles; and
  - Any other relevant matters;

Operation of the NQMS (3)

- The scheme influences the way in which data on land contamination is collected, processed and interpreted;
- It applies to both factual and interpretive reports;
- Each report produced under the scheme will be accompanied by a declaration of compliance, and bear the identifying “quality mark”;

Operation of the NQMS (4)

- The process comprises 5 stages:
  - Stage 1 - Preliminary actions (registration of SQP);
  - Stage 2 - Verifying the capabilities of the project team;
  - Stage 3 – Assuring the quality of the work as set out in the report;
  - Stage 4 – Issuing the declaration;
  - Stage 5 – Process review arrangements.

Operation of the NQMS (5)

- Stage 1 - Preliminary actions (registration of SQP);
  - People may become SQPs by two routes:
    - For existing SiLCs, a conversion course, which is formed by this on-line training package;
    - For people who are not SiLCs, a process of application, suitable chartership or membership of Professional Institutions, open-book exam and interview;
  - Fundamental role is to ensure the quality of the end product (reports), and to ensure competent people have undertaken work;
  - Only the SQP is authorised to use the “quality mark”.

Operation of the NQMS (6)

- What is an SQP?
  - is a senior individual – not a company
  - has a high level of specific competency
    - can delegate collation and assembly of information
    - cannot delegate responsibility for quality
  - is skilled in interpretation, etc.
  - is not an expert/ specialist in all fields of land condition
  - is able to identify gaps in data
  - knows when to seek assistance.

Operation of the NQMS (7)

- Stage 1 – specific duties of the SQP
  - Assess capability of team to gather, process and interpret data, considering training and capability assessment schemes verified by organisations such as SOBRA, ROGEP, CL:AIRE and SiLC, and in accordance with the National Brownfield Skills Framework (NBSF).
  - Ensure key aspects of reports are checked/audited personally or other delegated individuals with requisite capability;
  - Ensure the report is relevant to the regulatory regime governing the work at the time the work was commissioned;
  - Ensure conclusions and recommendations comply with the NQMS – accurate, reasonable, identify limitations;
  - Sign declaration form for each report and register on-line with scheme, include declaration in report, which may then bear “quality mark”.

Operation of the NQMS (8)

- Stage 1 – eligibility requirements for the SQP:
  - A Chartered person, bound by the professional code of conduct of the professional institution which has awarded Chartership;
  - Of sufficient experience in sector to have good overview of what is required to effectively assess a site and remediate to a suitable condition (and thereby meet requirements for regulatory sign-off);
  - Capable of recognising their own limitations, and able to identify the specialist skills required of others to complete the work;
  - Aware of the requirements of relevant regulatory regimes;
  - Committed to undertaking continuing professional development to maintain awareness of changing legislation, guidance and standards.

Operation of the NQMS (9)

- Stage 1 – National Brownfield Skills Framework:
- Generic capabilities
  - Personal Effectiveness
  - Communication and Interpersonal Effectiveness
  - Data and Information Management
  - Management and Leadership
  - Finance and Commercialism
  - Project and Programme Management
  - Health and Safety

Operation of the NQMS (10)

- Stage 1 – National Brownfield Skills Framework:
- Technical capabilities
  - Environmental Management
  - Legislation and Regulation
  - Site Investigation
  - Risk Assessment
  - Options Appraisal and Design
  - Remediation

Operation of the NQMS (11)

- Stage 1 – National Brownfield Skills Framework:
- Capability levels:
  - 1 - Aware
  - 2 - Basic
  - 3 - Proficient
  - 4 - Accomplished
  - 5 – Expert

SQPs need to demonstrate they are proficient (level 3) in a wide range of capabilities and accomplished (level 4) or expert (level 5) in at least one of the activities associated with land contamination management.

Operation of the NQMS (12)

- Stage 1 – National Brownfield Skills Framework – typical key capabilities of an SQP:

Personal Effectiveness • **Problem solving & decision making** • **Professionalism**	**Communication and Interpersonal effectiveness** • **Written communications** • **Technical communications**	**Environmental Management**
Data and Information management • **Data management and analysis**	Legislation & Regulation • Legislative knowledge • Regulatory compliance	Site Investigation • Design of SI. • Documentary research • Site recon. • Monitoring & sampling • Laboratory testing
Risk assessment • **Chemical assessment** • **Numerical modelling** • **Toxicology**	Options Appraisal & Design • Remedial options appraisal • Remediation design	Remediation • Process implementation

Operation of the NQMS (13)

- Stage 2 – Verifying the competence of those involved in producing reports:
  - Ensuring the competence of key project team members;
  - Reference to NBSF or other suitable competence frameworks;
  - Use of other assessment and registration initiatives such as SOBRA register of risk assessors;
  - Reference to achieving Chartership with relevant professional bodies;
  - Usually not possible to verify competence of people outside a company if they worked on earlier stages of project i.e. sub-consultants, so focus on quality of data.

Operation of the NQMS (14)

- Stage 3 – Assuring the quality of the work as set out in the report:
- Technical practice
  - Adopt good technical practice and use up to date and relevant references – guidance changes relatively frequently, so ensure you are aware of latest position on technical issues e.g. Water and Land Library (WALL) established by CL:AIRE or other sources of up to date guidanced;
  - Be prepared to use in-house guidance and justify its relevance e.g. generic assessment criteria formulated in house in accordance with latest relevant technical approaches;

Operation of the NQMS (15)

- Stage 3 – Assuring the quality of the work as set out in the report:
- Legislative requirements and regulatory advice
  - Ensure awareness of relevant regulatory regime, and role of different regulators in such regimes ie main regulator, statutory consultee;
  - Adopt standing advice from regulators on achieving compliance;
  - Be aware of different regulatory regimes in England, Scotland, Wales and Northern Ireland, and consequent differences in guidance;

Operation of the NQMS (16)

- Stage 3 – Assuring the quality of the work as set out in the report:
- Interpretation and technical auditing;
  - Ensure factual correctness;
  - Recognise variations in approach to interpretation;
  - SQP should apply a list of critical questions as set out in NQMS paper, or similar in-house criteria;
  - Interpretation is a matter for relevant expert(s)< but overall responsibility lies with the SQP;
  - Compliance with technical, regulatory and auditing guidance should ensure common understanding and acceptance of work undertaken to manage land contamination.

Operation of the NQMS (17)

- Stage 4 – Issuing declaration and applying “quality mark to report:
- Once report prepared and complete in line with NQMS, SQP must complete an on-line declaration form
- Pay fee to authenticate declaration;
- Once payment complete, form will be returned to SQP with unique reference number. This links declaration to report and SQP;
- The form is then signed and inserted into report;
- The declaration is lodged on the publicly available NQMS register
- Each SQP will have their own account for the purposes of the scheme

Operation of the NQMS (18)

- Stage 4 – Issuing declaration and applying “quality mark to report:
- Scheme administrator maintains a record of all documents bearing the “quality mark”;
- Each declaration has a unique reference number linked to the SQP;
- The purpose of the declaration form is to provide assurances to the client that:
  - each relevant aspect of the NQMS has been followed; and
  - the SQP is prepared to approve the report accordingly
- The purpose of the fee is to cover the maintenance of the scheme and technical information resource (WALL) available for use by SQPs.

Operation of the NQMS (19)

- Stage 5 – Process review arrangements:
  - The NQMS is a scheme designed to improve the quality of factual and interpretative reports relating to land contamination management;
  - Offers no insurance or guarantees;
  - Consultants and contractors offering environment and engineering services are covered by their own insurance schemes;
  - Liability for reports remains with the producer;
  - Feedback on specific products or providers may be passed to the NQMS to allow continuous improvement;
  - Scheme audits are proposed and a range of sanctions available for non-compliance where compliance is claimed.

The English National Planning Policy Framework

- The National Planning Policy Framework sets out the Government's planning policies for England and how these are expected to be applied;
- Planning law requires that applications for planning permission must be determined in accordance with the Local Plan and neighbourhood plans unless material considerations indicate otherwise;
- The National Planning Policy Framework must be taken into account in the preparation of local and neighbourhood plans, and is a material consideration in planning decisions;
- Planning Practice Guidance is also provided, covering amongst other things, Land affected by contamination

NPPF and land contamination (Para 109)

- The planning system should contribute to and enhance the natural and local environment by:
  - protecting and enhancing valued landscapes, geological conservation interests and soils;
  - recognising the wider benefits of ecosystem services;
  - minimising impacts on biodiversity and providing net gains in biodiversity where possible, contributing to the Government's commitment to halt the overall decline in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;
  - preventing both new and existing development from contributing to or being put at unacceptable risk from, or being adversely affected by unacceptable levels of soil, air, water or noise pollution or land instability; and
  - •remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.

NPPF and land contamination (Para 120)

- To prevent unacceptable risks from pollution and land instability, planning policies and decisions should ensure that new development is appropriate for its location.
- The effects (including cumulative effects) of pollution on health, the natural environment or general amenity, and the potential sensitivity of the area or proposed development to adverse effects from pollution, should be taken into account.
- Where a site is affected by contamination or land stability issues, responsibility for securing a safe development rests with the developer and/or landowner.

NPPF and land contamination (Para 121)

- Planning policies and decisions should also ensure that:
  - the site is suitable for its new use taking account of ground conditions and land instability, including from natural hazards or former activities such as mining, pollution arising from previous uses and any proposals for mitigation including land remediation or impacts on the natural environment arising from that remediation;
  - after remediation, as a minimum, land should not be capable of being determined as contaminated land under Part 2A of the Environmental Protection Act 1990; and
  - adequate site investigation information, prepared by a competent person, is presented.

NPPF and land contamination (Para 122)

- In doing so, local planning authorities should focus on whether the development itself is an acceptable use of the land, and the impact of the use, rather than the control of processes or emissions themselves where these are subject to approval under pollution control regimes. Local planning authorities should assume that these regimes will operate effectively.
- Equally, where a planning decision has been made on a particular development, the planning issues should not be revisited through the permitting regimes operated by pollution control authorities.

The English PPG (1)

- When a site is to be redeveloped, early engagement with the local planning and environmental health departments is recommended:
  - particularly if the land is determined as contaminated land under Part 2A of the Environmental Protection Act 1990;
  - to clarify what assessment is needed to support the application and issues that need to be considered in the design of a development;
- The Environment Agency will also have an interest in the case of ‘special sites’ designated under Part 2A and all sites where there is a risk of pollution to controlled waters. Remediation will need to meet their requirements.
- The developer should also check whether an environmental permit is required before development can start.

The English PPG (2)

- If there is a reason to believe contamination could be an issue, developers should provide proportionate but sufficient site investigation information including a risk assessment;
- The risk assessment should identify the potential sources, pathways and receptors (‘contaminant linkages’) and evaluate the risks. This information will enable the local planning authority to determine whether further more detailed investigation is required, or whether any proposed remediation is satisfactory.
- At this stage, an applicant may be required to provide at least the report of a desk study and site walk-over. This may be sufficient to develop a conceptual model of the source of contamination, the pathways by which it might reach vulnerable receptors and options to show how the identified pollutant linkages can be broken.

The English PPG (3)

- Unless this initial assessment clearly demonstrates that the risk from contamination can be satisfactorily reduced to an acceptable level, further site investigations and risk assessment will be needed before the application can be determined. Further guidance can be found on the Environment Agency website.

- Note that remediation or site investigation activities themselves, including field trials, may require planning permission if not carried out as part of a development, and in some cases may also need environmental permits.

The English PPG (4)

- Local planning authorities should work with developers to find acceptable ways forward if there are concerns about land contamination. For example, planning permission can be granted subject to conditions and/or planning obligations can be sought in the light of the information currently available about contamination on the site and the proposed remediation measures and standards. Responsibility for securing a safe development rests with the developer and/or landowner.
- However, local planning authorities should be satisfied that a proposed development will be appropriate for its location and not pose an unacceptable risk.

The English PPG (5)

- Using planning conditions
  - Local authorities can use planning conditions, where the relevant tests are met, to ensure that development (other than that required to be carried out as part of an approved scheme of remediation) should not commence until the identified stages in delivering a remediation scheme have been discharged. These stages and the factors to consider in framing appropriate planning conditions include:
    - site characterisation – what is required, including what sort of survey, assessment and appraisal, by whom and how the work is to be presented;
    - submission of the remediation scheme – what it should include;
    - implementation of the approved remediation scheme – notification to the local planning authority of when the works will start, validation that the works have been carried out and reporting of unexpected contamination; and
    - monitoring and maintenance – what is required and for how long.

The English PPG (6)

- Using planning obligations
  - Planning obligations could be used in a number of situations, for example:
  - to ensure that any necessary offsite treatment works (e.g. the installation of gas-migration barriers, water treatment or monitoring arrangements) are put in place;
  - to restrict the development or future use of the land concerned; or
  - for payments to the local planning authority, for example, for ongoing monitoring, maintenance, or as a bond to cover the contingency of future action triggered by the monitoring.

The English PPG (7)

- Unacceptable risk
  - Defra has published statutory guidance to help identify and deal with land which poses unacceptable levels of risk under the Part 2A of the Environmental Protection Act 1990 regime for remediating statutorily defined contaminated land. Local planning authorities will want to have regard to this and other guidance that could affect the amenity of a site and its future occupants. After remediation, as a minimum, land should not be capable of being determined as contaminated land under Part 2A.
  - More stringent standards of remediation than those under Part 2A apply to the management of the risks posed by man-made radioactive substances as a result of redevelopment for a new use. Public Health England has published technical guidance on recovery from chemical incidents and DECC has published statutory guidance on land affected by radioactive contamination. Public Health England has also published guidance on areas affected by radon and the control measures available for new development.

The Planning Policy in Wales (1)

- *Planning Policy Wales* (PPW) sets out the land use planning policies of the Welsh Government;
  - Chapter 13 deals with land contamination and development providing guidance to lessen the risk from natural or human-made hazards, including risk from land instability and land contamination.
  - The aim is not to prevent the development of such land, though in some cases that may be the appropriate response. Rather it is to ensure that development is suitable and that the physical constraints on the land, including the anticipated impacts of climate change, are taken into account at all stages of the planning process.
  - Responsibility for determining the extent and effects of instability or other risk remains that of the developer. It is for the developer to ensure that the land is suitable for the development proposed, as a planning authority does not have a duty of care to landowners

The Planning Policy in Wales (2)

- Local planning authorities should be aware of the requirements of Part 2A and ensure that their policies and decisions are consistent with it. Guidance on the Part 2A regime has been issued by the Welsh Government[8]. The main issues relating to the interface between the planning system and the contaminated land regime are:
  - where land is designated as contaminated land under Part IIA and the owner wishes subsequently to develop the land; and
  - where the future use or development of land means that the land will be designated as contaminated land under Part 2A.

The Planning Policy in Wales (3)

- Land contamination must be considered in the preparation of development plans to ensure that new development is not undertaken without an understanding of the risks, including those associated with the previous land use, mine and landfill gas emissions, and rising groundwater from abandoned mines;
- development does not take place without appropriate remediation;
- consideration is given to the potential impacts which remediation of land contamination might have upon the natural and historic environments.

The Planning Policy in Wales (4)

- Planning decisions need to take into account:
  - the potential hazard (or risk) that contamination presents to the development itself, its occupants and the local environment; and
  - the results of a specialist investigation and assessment by the developer to determine the contamination of the ground and to identify any remedial measures required to deal with any contamination.
- Where significant contamination issues arise, the local planning authority will require evidence of a detailed investigation and risk assessment prior to the determination of the application to enable beneficial use of land. Where acceptable remedial measures can overcome such contamination, planning permission may be granted subject to conditions specifying the necessary measures. If contamination cannot be overcome satisfactorily, the authority may refuse planning permission.

The Planning Policy in Wales (5)

- When planning permission is granted, a notice should be issued to inform the applicant that the responsibility and subsequent liability for safe development and secure occupancy of the site rests with the developer and/or landowner.
- It should also advise the applicant that, although the local planning authority has used its best endeavours to determine the application on the basis of the information available to it, this does not mean that the land is free from contamination.

The brownfield policy approach in Scotland (1)

- Scottish Planning Policy 2014 – provides policy position in Scotland
  - It introduces a presumption in favour of development that contributes to sustainable development;
  - The aim is to achieve the right development in the right place; it is not to allow development at any cost;
  - The planning system should enable development that balances the costs and benefits of a proposal over the longer term;
  - Previously developed land (also referred to as brownfield land) is a potential source of sites for new development;
  - Planning authorities should support and promote proposals to bring vacant or derelict land back into productive use for development or to create more attractive environments.
  - Not all previously developed sites are available in the short term, but areas can be identified where investment in site assembly, remediation, infrastructure and environmental improvement will enable successful development in the longer term.

The brownfield policy approach in Scotland (2)

- Authorities should adopt a proactive approach to encouraging the reuse of buildings and previously developed land, making use of land assembly and compulsory purchase powers to enable redevelopment opportunities;
- Redevelopment of urban and rural brownfield sites is preferred to development on greenfield sites;
- The National Planning Framework (2014) is the Scottish Government's strategy for Scotland's long term spatial development, and encourages use of previously developed land;
- Planning Advice Notes (PANs) provide advice and information on technical planning matters. PAN 33 (2000) deals with development of contaminated land.

The brownfield policy approach in Scotland (3)

- PAN 33 2nd edition was published in 2000, and doesn't reflect much more recent technical guidance on land contamination;
- It proposes the suitability for use approach, including:
  - ensuring that land is suitable for its current use;
  - ensuring that land is made suitable for any new use, as planning permission is given for that new use;
  - limiting requirements for remediation to the work necessary to prevent unacceptable risks to human health or the environment in relation to the current use or future use of the land for which planning permission is being sought;
- It recognises the role of Site Specific Risk Assessment.

The brownfield policy approach in N Ireland (1)

- The Strategic Planning Policy Statement sets out the Department's regional planning policies for securing the orderly and consistent development of land in Northern Ireland;
- There are a series of Planning Policy Statements, but none cover dealing with land contamination.

Model Procedures for Management of Land Contamination

- Published in 2004, this guidance (known as CLR11) from the EA and Defra still provides a relevant over-arching framework for the management of land contamination;
- It comprises three parts. Part 1 has five chapters and sets out the procedures:
  - Overview
  - Risk assessment
  - Options appraisal
  - Implementation of the remediation strategy
  - References and glossary
- Parts 2 and 3 provide supporting information and an information map, but these are somewhat dated now

Role of conceptual site models

- Conceptual site models (CSM) can come in a number of forms – pictorial, tabular or written, and in more sophisticated GIS or 3D computer visualisations;
- They are used to bring together the combination of contaminant linkages (source-pathway-receptor linkages) for a site to help in the understanding of how contamination is distributed and how it might affect people or the wider environment;
- It should form the basis for risk assessment, remedial options appraisal and any subsequent proposed remediation;
- The CSM compilation should start at the preliminary stages of work, and be developed as knowledge improves, and so go through a series of versions to reflect improving understanding.

Building Regulations – England (1)

- Approved Document C (2010) – Site preparation and resistance to contaminants and moisture;
- Recognises that contamination normally dealt with through planning system, but if the issue is not found until a development project is on site, then relevant authorities should be alerted;
- Lists typical contaminants which may be of concern for building;
- Promotes risk assessment process and use of CSM;
  - Hazard identification and assessment;
  - Risk estimation and evaluation;
- Remedial measures described generically;

Building Regulations – England (2)

- Considers risks to buildings, building materials and services;
- Concentrates on hazards from:
  - Aggressive substances, which may affect the long term durability of construction materials;
  - Combustible fill, which, if ignited may lead toi subterranean fires and consequent damage;
  - Expansive slags, which may expand over time causing damage to buildings or services;
  - Floodwater affected by contaminants, which may affect building elements.
- Flags the need to deal with methane, radon and other gases and provides some limited references to other guidance

Part 2A of the EPA (1990) (1)

- Deals with risks to health and the environment from contaminated sites in relation to current use;
- Only operational in England, Scotland and Wales – N Ireland has not enacted this legislation;
- Approach has diverged over time, and regime has differences between each country;
- Local Authority is the lead regulator, and must develop a Strategy to inspect their area of responsibility;
- Risk based approach to determining whether land meets the definition of contaminated land;
- Risk comprises (a) the likelihood that harm, or pollution of water, will occur as a result of contaminants in, on or under the land; and (b) the scale and seriousness of such harm or pollution if it did occur;

Part 2A of the EPA (1990) (2)

- Under Part 2A, for a relevant risk to exist there needs to be one or more contaminant-pathway-receptor linkages – a “contaminant linkage”;
- All three elements of a contaminant linkage must exist in relation to particular land before the land can be considered potentially to be contaminated land;
- In the event that a Regulator decides that a site meets the definition of contaminated land, they should determine it so unless the appropriate person (the causer or knowing permitter) undertakes voluntary action to address the contaminant linkages;
- Remediation may be defined by the Regulator, or if voluntary action is proposed, by the appropriate person. It must break the contaminant linkages.

Environmental Health/Environment Agency role in planning

- Under the planning system, the Planning Authority is responsible for assessing planning applications and any associated conditions;
- They will consult with relevant bodies in relation to the potential for contamination;
- Such bodies may include their own Environmental Health Department in relation to risks to human health and property from possible contamination on a site, and the Environment Agency in relation to risk to controlled waters;
- These bodies will advise on the need or otherwise for desk studies, site investigations and risk assessments and seek these ahead of grant of planning permission, or propose conditions to be applied to the grant of planning permission for such actions to be taken.

Environmental Health/Environment Agency role in planning

- Technical specialists from these bodies may assess the adequacy of technical submissions, or seek additional support to assess more complex submissions;
- They should ensure that any conditions set with planning permissions related to land contamination are properly discharged, including conditions for site characterisation, risk assessment, options appraisal and remediation;

Responsibilities of Developers in brownfield development

- Developers are responsible for the safe development of land;
- They should ensure that the necessary works are undertaken to characterise a site, and define the most appropriate remediation to make it suitable for the proposed use set out in the planning application;
- They should ensure that remediation is carried out and achieves a standard which makes a site suitable for its proposed new use;
- They should ensure that all conditions set with the planning permission are properly discharged

Ecological constraints in brownfield development

- When developing a site, the developer must ensure that they have identified the possible presence on the site of all protected species such as bats, reptiles, newts etc through undertaking surveys at the correct time of year;
- They should ensure that tree removal and vegetation stripping occurs outside of the window defined for nesting birds;
- They should undertake a survey for noxious weeds such as Himalayan Balsam, Japanese Knotweed and Giant Hogweed, and if found ensure they do not spread to the wider environment.