

1C.2 - Integrating sustainable remediation into other policies

THE LEGISLATIVE BASIS FOR SUSTAINABLE REMEDIATION PRACTICE IN THE EUROPEAN UNION AND UNITED KINGDOM

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This paper summarises the findings of an assessment of how the wordings of legislative, regulatory, and technical guidance documents issued by legislative bodies in the European Union (EU), and United Kingdom (UK) can require, promote, or support the application of Sustainable Remediation principles. It also examines how such sections of regulatory text can be drawn upon by contaminated land practitioners and regulatory authorities to develop or support an argument for a sustainable remediation approach.

Sustainable Remediation involves the balanced consideration of environmental, social and economic factors in soil and groundwater risk assessment and risk-management decisions. The principles and practice of Sustainable Remediation are being increasingly promoted and applied to the management of contaminated soil and groundwater throughout the EU, including the UK, although this may not always be fully recognised.

A detailed and systematic review of legislative, regulatory, and technical guidance documents relevant to the contaminated land regime in the EU and UK was undertaken. It identified sustainability principles embedded in a wide body of EU directives, and UK legislation, regulation, and technical guidance. These included the Water Framework Directive (2000), the Environmental Liabilities Directive (2004), the Groundwater Directive (2006), the Waste Framework Directive (2008), the Industrial Emissions Directive (2010) and the Priority Substances Directive (2013), as well as the Common Implementation Strategy (CIS) guidance for the Water Framework and Groundwater Directives.

Some of these principles are over-arching statements that are applicable throughout the project life cycle, whereas others are specifically relevant to various scenarios that might be encountered at particular stages in progressing from site assessment through to remediation.

It is important to recognise from a holistic standpoint that sustainability and proportionality principles lie at the heart of EU policies, as set out in Title II, Article 11 of the consolidated version of the Treaty on the Functioning of the European Union (2012),

*“Environmental protection requirements must be integrated into the definition and implementation of the Union's policies and activities, in particular with a view to **promoting sustainable development**.”*

and also in the Treaty on European Union 1993 (Maastricht Treaty), which establishes that:

*“The Union shall establish an internal market. It shall work for the **sustainable development** of Europe based on **balanced economic growth** and price stability, a highly competitive social market economy, aiming at full employment and **social progress**, and a high level of **protection and improvement of the quality of the environment**.”*

EU Directives are binding on member states and typically require signatory countries to create or amend domestic laws to implement the Directives within a specified timeframe. Particular Directives promoting the principles of sustainable remediation throughout the entire project life cycle include:

- Paragraph 12 of the preamble to the Water Framework Directive 2000, which states:
*“...in preparing its policy on the environment, the Community is to take account of available scientific and technical data, **environmental conditions** in the various regions of the Community, and the **economic and social development** of the Community as a whole and the balanced development of its regions as well as the **potential benefits and costs** of action or lack of action.”*
- Paragraph 1 of the preamble to the Priority Substances Directive 2013, which states:
*“As a matter of priority, causes of pollution should be identified and emissions of pollutants should be dealt with at source, in the most **economically and environmentally effective manner**.”*



- The preamble to Paragraph 6:

*“in preparing its policy on the environment, the Union is to **take account of available scientific and technical data, environmental conditions** in the various regions of the Union, the potential **benefits and costs** of action or lack of action as well as the **economic and social development** of the Union as a whole and the **balanced development** of its regions. **Scientific, environmental and socio-economic factors, including human health considerations**, should be taken into account in developing a **cost-effective and proportionate policy** on the prevention and control of chemical pollution of surface waters...”*

Within the UK, references demonstrating the requirement for regulators to consider sustainability in decision-making can be found even under statutory triggers that arise when a site is determined as “contaminated land” by a local or regulatory authority, or when an enforcement notice is served. Sustainable development also lies at the heart of the UK planning regime, under which the large majority of sites are remediated, as is set out in the various National Planning Frameworks for England, Scotland and Wales and particularly in key policy documents, such as the promotion of brownfield development in urban planning strategies.

Much of the discussion on sustainable remediation has given particular focus to the remedial options appraisal stage and there are plenty of supporting references especially within the UK framework that lends support to this. These go right back to the CLR11 Model Procedures (2004) but are also found within such key documents as the Environmental Protection Act (1990 Part 2A): Contaminated Land Statutory Guidance (2012, issued by the Welsh Government) and even the Environmental Damage (Prevention and Remediation) Regulations of 2015.

At the EU level, one of the most significant references lies within the Environmental Liabilities Directive (2004) where Annex 2, Article 1.3.1, makes reference to criteria for options requiring consideration of

*“the effects ...on **public health and safety**, the **cost** of implementation, the degree of **benefits to each component of the natural resource and/or service**, and finally the extent to which each option **takes account of relevant social, economic and cultural concerns** and other relevant factors specific to the locality.”*

Additionally, CIS Guidance Note 17, (2007) discusses how Cost-Benefit Analysis and Risk Assessment may, under certain circumstances, demonstrate that site clean-up may be unfeasible and when this might be acceptable. In common with various UK guidance documents, CIS also promotes sustainable remedial alternatives in circumstances when remedial objectives cannot be met (Section 5.3).

What is apparent from the review, however, is that legislative guidance underpins or necessitates application of the principles of sustainability at multiple stages in the project life cycle, of which the remedial options appraisal is only one. Within the UK framework for example, promotion of sustainable principles is included in the risk assessment process, specifically within guidance relating to the selection of compliance points, determining remedial target concentrations and evaluating risks.

During the implementation of remedial works engagement with stakeholders and sustainable waste management practices, including deviation from the waste hierarchy on sustainability grounds, all have a basis in various UK legislative documentation.

Finally, in relation to verification and monitoring, CIS Guidance Note 17 requires consideration of the need to “**reduce the monitoring effort**” through use of indicator parameters and the “**cost benefit of the number of wells versus the level of information that will be obtained**”.

It is therefore evident that, both at EU level and within the UK framework, there are key legislative ‘hooks’ which support, underpin or require sustainability to be embedded throughout the process of investigating, assessing and remediating contaminated land.



References

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EU Legislation

Consolidated Version of The Treaty on European Union, 1993

Consolidated Version of The Treaty on The Functioning of The European Union, 1957.

Directive 2000/60/EC Establishing a Framework for Community Action in the Field of Water Policy (The Water Framework Directive)

Directive 2004/35/EC on Environmental Liability with regard to the Prevention and Remedying of Environmental Damage

Directive 2006/118/EC on the Protection of Groundwater Against Pollution and Deterioration (The Groundwater Directive)

Directive 2008/98/EC on Waste and Repealing Certain Directives (Waste Framework Directive)

Directive 2010/75/EU on Industrial Emissions (Integrated Pollution Prevention and Control) (Industrial Emissions Directive)

Directive 2013/39/EU Amending Directives 2000/60/EC and 2008/105/EC as regards Priority Substances in the Field of Water Policy (Priority Substances Directive)

European Commission, Guidance Note 17 on preventing or limiting direct and indirect inputs in the context of the Groundwater Directive 2006/118/EC (CIS Guidance Note No. 17)

UK Legislation, Policy and Guidance

Environmental Protection Act 1990

The Environmental Damage (Prevention and Remediation) Regulations 2009

EA, 2004. Model Procedures for the Management of Land Contamination (CLR 11).

Welsh Government, 2012. Contaminated Land Statutory Guidance – 2012

