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The sustainability of standards in contaminated land investigation

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UK Site Investigation

1970's - Nuisance issue

1980's – Waste, Brownfield land - Political issue

1990's – Environment Act, EA /SEPA, Water - Financial issue

2000's – CLEA, Waste, Sustainability – A Way Forward? Moral issue? Scientific basis?

Regulators established to police and provide advice on select parts of it

Planning established as the mechanism to capture contaminated sites

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Site Investigation and Sustainability

Site Investigation is driven by unknowns…

Concentrating on the contaminants of concern will improve sustainability

What do you already know? What do you need to know?

What is the best way to find out? What other aspects come into play?

Accessibility

Competence

Reliance

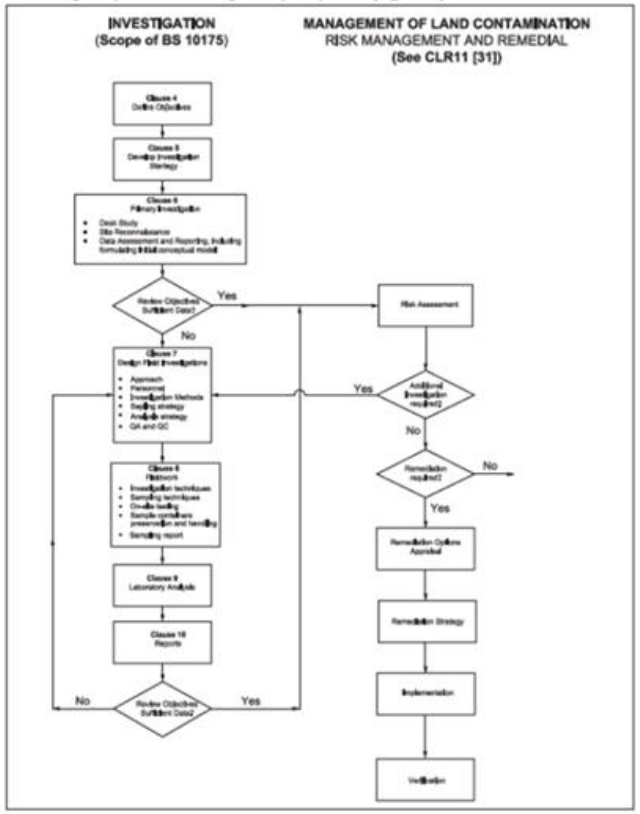
Scientific Certainty

Repeatability

Sustainability

Standards

- Why use or create them?
- Promotes good practice
- Encourages innovation and passes on knowledge
- Levels the playing field
- Provides surety to Clients and Regulators
- Confidence in findings
- Promotes professionalism
- Avoids re-inventing the wheel…
- Produced and accredited by a national or international bodies
- Produced by experts in the field
- Subject to scrutiny by fellow experts, interested parties and public



Guidance Vs Legislation

- Most “standards” in our field are in fact guidance documents
- BS10175, BS8485, ISO18400
- “You should” not “you must”
- But… Usually expected to justify deviations from it
- Other bodies produce guidance, is it of equal relevance?
- Standards can also be suggestions or ways of doing things – i.e. guides to good practice
- Examples: AGS – Data Format, Asbestos, Site Investigation, Made Ground, Etc.

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Sustainability and Standards

Standards are supposed to promote sustainability

Following standards advice should be the most sustainable way of achieving their goals…

Compliance with legislation – little duplication of effort

Can be specifically related to sustainability:

ISO 18504: Sustainable Remediation

Can be present as a specific goal to achieve in many standards along with carbon reduction, cost effectiveness, etc. (9001,14001)

Sustainable doesn't always mean cheaper, but should ensure continuance

Clients often do not value Contaminated Land Risk Assessment, Investigation and Standards but view them as necessary evils driven by legislation… It can be so much more…

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Sustainability

Can be designated as a goal during any part of the investigation, design and development process

Should ideally be in all of it from start to finish

Sustainable goals are not always the most cost effective in the short term but always will be in the longer term

Standards should suggest and reflect the most sustainable way of undertaking a specific task

Compliance with standards should therefore be sustainable by default

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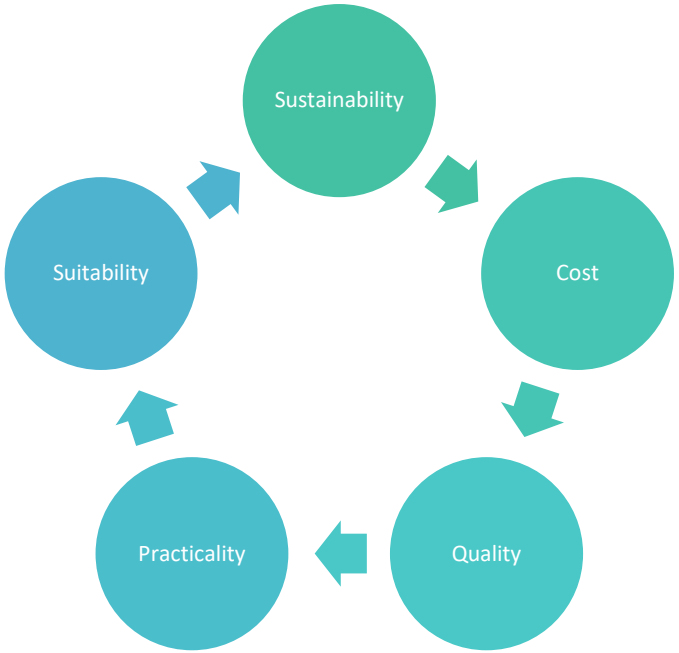
Best Practice

Working to standards and best practice guidance should in theory mean that, with newer iterations more so, some consideration is given to sustainability.

But as ever, there needs to be an equilibrium between:



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Best Practice

- Context
- Data quality requirements
- Speed
- Cost
- Logistics/practicalities/location
- Matrix
- Accreditation
- Critical levels of interest

All considerations for delivering a fit for purpose and considered solution. And something every lab will be happy to discuss at project inception as to the most appropriate solution to a problem

Conclusions

Investigations, models, assessments and data management all have good standards

These are now designed to promote or aid sustainability as a project goal or requirement

Sustainability can (and arguably should) be built in to all parts of the development process

Sustainability specific standards are now available for certain other parts of processes – remediation / management

Compliance with standards should always be more sustainable by default

Compliance should also tick the boxes of the regulators

Comments and Thoughts

Waste and asbestos are the current elephants in the room…

BS10175 should be your first port of call for site investigation

Should form part of a considered management strategy

CSM's are key

Over-conservative risk assessment is unsustainable

UK processes can be sustainable if set as a goal and the regulator is happy

Need to be scientific in your justifications and reasoning

Sustainability is not always less costly, but is always more effective in the longer term

Data gathering, retention and transfer will also help over time

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AGS Works In Progress

Lead from ICE/Developers/Clients/Society to develop best practice in sustainability (including Climate change and resource use) and reduce costs…

Lead ultimately by AGS Board

Contaminated Land Working Group

Sustainability sub-group

Devising procedures and gathering evidence demonstrating best practice in industry

Educational policies and procedures – AGS Magazine articles / Conferences / on-line resources

Promoting general sustainability education and awareness for the industry - Training and Dissemination of best practice

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AGS Interactions between Sub Groups

Combining with the Labs Group on joint issues of concern

More efficient use of laboratories and analysis

Areas covered: TPH, Containers, Energy use, Transport, Waste, Standards application, MCerts

Investigating the use of instruments and site monitoring as alternatives to staff site visits with the Monitoring and Instrumentation Group

Works: Joint article on principles of sustainability, further articles to follow

Data Format Group: AGS sustainability in data transfer, adoption as British Standard, BIMS promotion

Geotechnical Group: Site Works and liaison with Equipe and others

From Here?

BSI – continue to ensure Standards meet and consider sustainability criteria whilst compliance

Geological Society – Interaction with Contaminated Land Group and promotion within the society as a whole including QEJGH articles

Claire - Sustainability in assessments and QP validation, promotion of sustainability assessment as remediation best practice

EIC / JIWG – AGS already a member

Ciria – Possible guidance /promotion of best practice

SoBRA – Partnerships in sustainability

EA – Works ongoing re climate change / Sustainability

The End?

Sustainability will never end

Will change over time – and should do

Different definitions from different angles

Standards should be sustainable

Compliance with and use of Standards should be…

Good practice not always best practice

Remember the difference between standards and guidance

And guidance standards

All help gratefully received