

# What is Sustainable Remediation and How Can it Be Achieved?

## Roundtable outcomes and notes, October 2021



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Director**

### About

Environment Analyst's [Brownfield and Regeneration Network](#) brings together the entire brownfield community through our news and events, to share insights, identify business opportunities and build connections at all levels.

This network roundtable brought together brownfield contractors, consultants and key stakeholders to discuss the issue of achieving sustainable remediation.

### Key themes

- Sustainable remediation is not high enough in the decision-making hierarchy
- Important to get the balance right between environmental, economic and social factors
- A unified definition of sustainable remediation is needed
- Natural solutions on the rise

### Recommendations

- Broaden consideration of sustainable remediation to make sure it is resilient
- Encourage value engineering and cost-benefits when selling sustainability to the client
- Regulators should champion sustainable remediation
- Industry needs to use its teeth to challenge over-conservative regulation
- Need case studies to show that over conservative judgements are not difficult to address
- Emphasis should be on adapting existing techniques and developing smarter applications rather than developing new technology
- Opportunities in set-aside land, biodiversity net gain and offsite mitigation

## Definition of sustainable remediation

**Sustainable remediation has been around since the mid-noughties** – yet it has never really hit the mainstream and is often viewed as a sub-sector. Is it too academic, or esoteric? The fact it hasn't hit the heights is leading to problems....

**The fact there are multiple definitions** of sustainable remediation, including the SuRF-UK Framework and an International Standard Organisation (18504:2017) – and the discussion on what is an accurate definition, tells a tale.

**There is a consensus that balance is very important**, given the tendency for practitioners in the sustainable remediation sector to have a conscious or unconscious bias towards environmental factors, even though weightings are given to economic or social ones.

**Sustainable remediation needs to be framed in one of the adopted criteria** – National Planning Policy Framework, Sustainable Remediation Forum (SURF) the SuRF-UK framework, or ISO – otherwise decisions can be seen as subjective and can be seen as a way for clients to avoid spending money.

## Process

**Many of the larger sustainability questions had been answered** at the planning or master-planning stage when the process got to the sustainable remediation options phase. This means the skills the practitioners can provide in terms of land use, constraints and opportunities, access, flood defence and transport and material management plans are often not used. There needs to be more differentiation between sustainable development and sustainable remediation but acknowledgement that the two are linked.

**When selling sustainable remediation to clients – value engineering and cost-benefits should be stressed.** There's a misconception that sustainability compromises your solution. It should be made clear and get the message out to the industry that sustainability is about mitigating risk and sustainable remediation is getting the balance right. It is very much about a technical focus and then how it is delivered in the best sustainable manner as possible.

## Affordability

**Often, remediation is a last-minute decision.** It is often a balance of viability. If the site can afford it – remediation will be done. How long and when is a matter for decisions and negotiations. Contamination is not usually a deal breaker. For the funder to make remediation happen, often something else has to give way (for example, affordable housing units, schools, or doctor's surgeries).

## Viability

**The onus is on the developer to demonstrate the land is safe.** With the transfer of viability issues to local authority planners – they have teeth to challenge over-conservative risk assessment. There's an opportunity for the industry to challenge decisions. But does it have the appetite to use its teeth?

## Risk Assessment

**Some remediation targets aren't achievable and not required.** Not enough money is spent on site investigation and Detailed Qualitative Risk Assessment.

## Remediating what is necessary

**Embrace proportionate sustainability approaches** - The biggest gains are via robust risk assessments and agreements with the regulator not to remediate millions of cubic metres or thousands of tonnes of material – rather than questions over using diesel or batteries.

**The question must be asked: are you remediating what you need to be remediating?** It goes back to the master plan. Why are you remediating? In residential projects there will be public open spaces, roads and carparks and a major help would be knowing where these will be along with the location of impacting material.

## Liabilities

**At the end of the development, it is the long-term liability that scares people.** There must be no come back on developer or landowner – there must be no liability on site. Clients with ESG principles must make sure there is no long-term liability with climate change which could render current solutions invalid or obsolete.

## Regulator's attitude

**The onus should be on regulators to champion sustainability and Sustainable Remediation.** They have historically alleged that developers use sustainable remediation to save money. But these are receding. The authorities seem to be interested in the end point rather than the 'how'. Regulators are driven by regulations and don't necessarily look at all the issues.

## Education

**Local authorities won't say assessments are too conservative.** This is because of funding, resources and capacity. If the developer signs it off – they will accept it. Case studies are needed to show how issues can be remediated in a more sustainable way.

## Betterment

Betterment, when chosen as a solution, must be underpinned by sustainability principles to have technical credibility and balance on achievability. The level of risk should be balanced with remediation.

## Smarter application

**In terms of new remediation techniques** there's a lot of development around nature-based solutions – but there's an increasing emphasis on smarter techniques, smarter monitoring and making things more efficient.

## Nature-based solutions

**Owners are looking at nature-based solutions seriously**, as they are not going to release land. There's a trade off in terms of time and energy. They are looking at what they can do with their land before releasing it for another land use.

**Nutrient neutrality issues have encouraged nature-based solutions.** Water companies are looking at dealing with effluents at a water catchment level. The water treatment sector has lessons to teach the remediation industry working with water pollution in a constrained environment. There are lessons from science and engineering to refine or do new stuff in the uncontrolled subsurface environment.

**Nitrates and phosphates in the watercourses are affecting RAMSAR and wetland sites.** The solution is set-aside – taking land out of agricultural practice. This links in with biodiversity net gain and set aside in the Environment Bill. Reed beds could become particularly important habitats in themselves - ticking a lot of boxes.

**With the 10% uplift, it won't necessarily be the development sites where increased biodiversity occurs** but offsite mitigation. This has ramifications for landowners – who could get payments from developers.

## Electric power plant

**Uptake of electric power plants is low.** There is a problem of sites not connected to the mains so contractors have to charge up with diesel generators. There are issues with availability of large excavators on bigger sites - many are being used on HS2 and there are difficulties getting newer and cleaner equipment. Some hopes are being pinned on hydrogen.

## Roundtable participants

Name	Job Title	Company
Alan Thomas	Technical Fellow	ERM
Jonathan Atkinson	Technical Specialist Ground Water & Contaminated Land	Environment Agency
Paul Nathanail	Technical Director Contamination Assessment and Remediation GHD	GHD
Richard Boyle	Senior Technical Manager (Southern Lead – Central & West, Southern) Development Services, Homes England	Homes England
Danny Hope	Regional Director	Hydrock
Richard Bewley	Senior Management Consultant	Ramboll
Vivien Dent	Associate Technical Director	RSK
George Evans	Managing Director	Soilfix
Ian Grant	Director	Environment Analyst
Julian Rose	Cofounder	Environment Analyst
Amanda Rafferty	Community & Events Director	Environment Analyst

## Want more information?

Contact Lisa Turner at [lisa.turner@environment-analyst.com](mailto:lisa.turner@environment-analyst.com) for more information on our roundtable series or the [Brownfield and Regeneration Network](#).

## Explore these issues further at the Brownfield Regeneration Summit

To explore these issues further make sure to join us at the [Brownfield Regeneration Summit](#), which begins next week (9-10 & 23-24 November) will bring the whole brownfield community together to discuss **how to achieve sustainability and net zero goals through brownfield remediation and redevelopment**.

The event, which incorporates our annual Remediation conference, includes sessions that will specifically explore **how brownfield remediation can significantly contribute to sustainability goals by stepping-up to the next level**; embracing tools to assess, quantify, and demonstrate carbon reduction, maximising the benefits of soil, optimum land reuse, and enhancing biodiversity.

[View the event agenda and get your ticket.](#)