

# Redevelopment of landfill sites

A guide to managing the risks of former landfills to enable development



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## About CIRIA

CIRIA is the Construction Industry Research and Information Association, a neutral, independent and not-for-profit member organisation.

Our vision is to be the leading enabler and preferred partner for performance improvement, to drive collaboration across the built environment and construction sectors to research, develop and transfer knowledge.

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## CIRIA Products

CIRIA delivers robust, authoritative and independent good practice guidance applicable across sectors and designed for a range of users, from policy makers to practitioners.

Our guidance is developed collaboratively with industry and academic experts. Our methods ensure consensus, quality and the latest thinking underpin everything we do. Our work contains case studies to share knowledge and illustrate practice through examples.

We raise awareness of our good practice guidance through training, events, communities of practice, social media, blogs and press releases. Key messages from our projects are widely disseminated to help embed good practice into industry.

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## CIRIA Research Ambitions

CIRIA's 60+ year history and future purpose are aligned to our ambitions, designed to make a tangible difference to the sectors in which we work. We take a holistic, systems-based approach to critical industry challenges within our 5 core research ambitions.



Embedding Sustainability



Achieving Net Zero Carbon



Increasing Resilience



Improving Delivery



Harnessing Innovation

# Redevelopment of landfill sites

## Justification

Brownfield regeneration has been high on the the UK government's agenda, particularly in providing housing developments for many years. It provides a cornerstone to levelling-up regional disparities, economic growth and the regeneration of areas surrounding towns and cities.

Former landfill sites are brownfield sites. These sites often present additional engineering and design challenges. However when managed effectively, the development of these sites can be a catalyst for regeneration

In 2001, CIRIA published C557 Remedial engineering for closed landfill sites, but this is now largely outdated due to changes in legislation and the advent of a broader range of sustainability drivers. For instance, the way that waste soil is managed places increasing emphasis on circular economy principles in construction projects, the government's brownfield first policy and changes in the waste soil-related regulatory regime. Notably, the Definition of Waste: Development Industry Code of Practice (DoWCoP) that was produced in 2008 is now applied to many brownfield projects including old landfill sites.

Practitioners are however continuing to face difficulties in developing old landfill sites. This includes applying DoWCoP and obtaining the necessary permits e.g. Deposit for Recovery permits when redeveloping old landfill sites. A recent SILC Survey shows that 17% of landfill redevelopment projects were abandoned because of this problem. This has a major impact on the local and national economy, is a blocker to growth and provides a constraint on employment throughout supply chains. It may also contribute to driving development on sites where the environmental impacts of development are greater.

This project will provide up-to-date guidance on how the various technical and non technical risks related to former landfill site should be managed.

## Scope

This proposal will deliver a good practice guidance document to help construction professionals redevelop former landfill sites.

The guidance will focus on:

- how to assess the major geotechnical and geo environmental risks when redeveloping different types of former landfill sites
- how to mitigate the risks
- how to meet wider sustainability requirements such as biodiversity net gain, reducing carbon footprint in the development projects
- how to apply for different permits and meet regulatory requirements including issues related to the Definition of Waste: Development Industry Code of Practice (DoWCoP)
- how to plan and implement sustainable redevelopment options for different types of former landfill sites.
- practical site issues that need to be aware of when redeveloping former landfills
- how to communicate the risks to the local communities

The guidance will provide detailed case studies drawn from a range of redevelopment projects undertaken on former landfill sites. These will be used to emphasise the challenges being faced and how they have been successfully overcome. This will provide an opportunity for funders to share exemplars of good practice and help users navigate the complexities and pitfalls that can arise.

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## Indicative Timeline



# Why invest in a CIRIA project?

The benefits to your company from contributing to our projects

## Our reputation

Our reputation in the industry is long established and widely recognised. The principles of quality, sustainability and collaboration have been a foundation for what we do for many years.

## Our downloads

Our Guidance is downloaded over 50,000 times per year



## Our reach

Our members and downloads span over 50 countries worldwide



The benefits of being involved in a CIRIA project are various:

- Deliver significant corporate value for modest levels of investment.
- Raise awareness of your corporate brand through logo on outputs and submission of case studies and content.
- Network with peers, clients and thought leaders in the sector.
- Get your message heard and influence industry direction.
- Demonstrate tangible leading contribution to improvement in the sector, fulfilling ESG goals
- Provide CPD for your staff, aiding routes to chartership and personal career growth
- Assist future work winning through involvement with industry leading good practice

# Want to know more?

## CIRIA Research



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