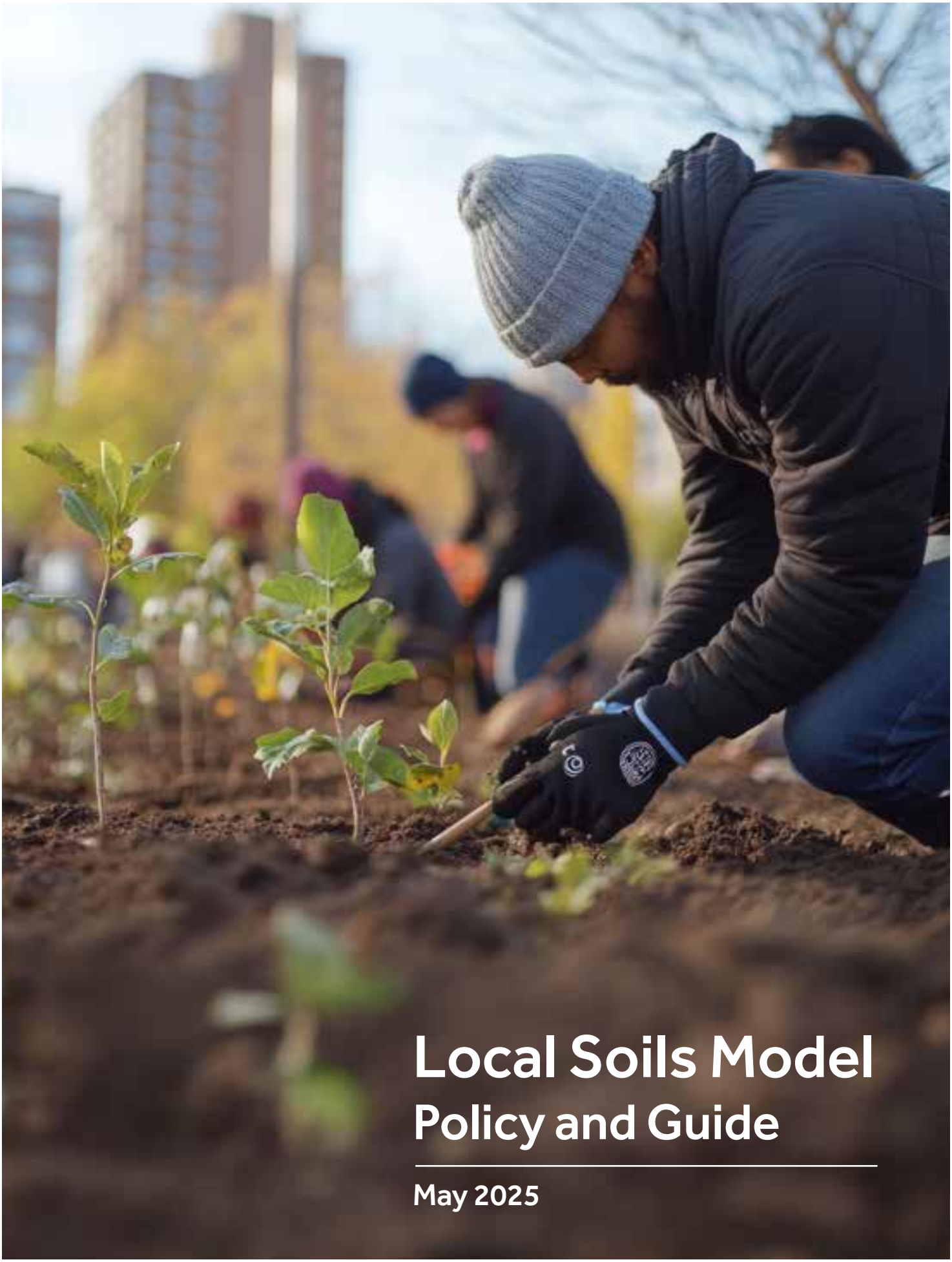

Local Soils Model
Policy and Guide

May 2025

Engineering and Physical Sciences Research Council

Arts and Humanities Research Council

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This Local Soils Model Policy and Guide was produced as part of the Local Soils project. It accompanies the Local Soils – Local Planning Policy for Sustainable Soils, Policy Co-Design Report[1] which provides detailed information on how this model policy was produced.

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Image: B Hontzsch

[1] Davies, J., Calvo, M., Quinton, J.N., Dart, S., Hatch, P., & Höntzsch, B., Changede, S., Feng, S., Gill, E. (2025), Local Soils - Local Planning Policy for Sustainable Soils: Policy Co-Design Report, Soils in Planning & Construction Task Force, Lancaster University, UK.
Available on the Soils Task Force Website: www.soilstaskforce.com/reports

[2] www.lancaster.gov.uk

[3] www.cornwall.gov.uk

[4] www.soilstaskforce.com

[5] Building on soil sustainability: Principles for soils in planning and construction, 2022, Soils in Planning and Construction Task Force.
Available on the Soils Task Force Website: www.soilstaskforce.com/reports

Contents

Introduction

Soils are an often overlooked, yet they are essential to creating sustainable and resilient urban environments. Recognising soils as a living system and as a non-renewable resource – rather than simply a building substrate – is critical to the climate, environmental health, and community well-being. We need a change of perspective right at the beginning of when we plan for the places, spaces and buildings we create, through greater thought and integration of understanding around sustainable soil management into the planning and construction process.

Building on the work of the Soils Task Force[6], the Local Soils Project – led by Lancaster University in collaboration with Lancaster City Council and Cornwall Council – aims to create a set of model policies and resource for local planning authorities across England to easily integrate soil sustainability into planning policy.

The Local Soils Project involved extensive cross-sector engagement to develop a model planning policy, along with practical insights and resources to support more informed decision-making and policy development. The Local Soils Model Policy presented in this document is supported by a separate detailed report[7] that sets out the rationale for including such policies in emerging local plans, describes how the model policies were co-developed, and communicates other key findings from the co-design process.

The detailed report sets out the extensive engagement which took place with partners, including a series of collaborative design engagement activities conducted in 2024 building on a wealth of guidance, practice and research around soils and combining the vast and diverse skills and knowledge of approximately 50 professionals with centuries of combined experience from across the planning, development, engineering, architecture, construction and environmental sectors.

In this document you will find a summary of the detailed report followed by a model local plan policy for sustainable soils and policy text which can accompany other key local plan policy themes where soils play a role. The model policy is intended to be adaptable for use by any local planning authority and is structured to reflect the diverse considerations required for effective soil management.

It is hoped that this model policy and the accompanying detailed report can form an evidence base for any local planning authority across the country to elevate the issue of sustainable soil management and its protection within their emerging local plans.

[6] www.soilstaskforce.com/

[7] Davies, J., Calvo, M., Quinton, J.N., Dart, S., Hatch, P., & Höntzsch, B., Changede, S., Feng, S., Gill, E. (2025), Local Soils - Local Planning Policy for Sustainable Soils: Policy Co-Design Report, Soils in Planning & Construction Task Force, Lancaster University, UK. Available on the Soils Task Force Website: www.soilstaskforce.com/reports

What is soil?

Soil is a complex, living system made of minerals, organic matter, micro and macro-organisms, fungi, bacteria, water and air. It takes thousands to hundreds of thousands of years to form, making it a non-renewable resource that we need to protect[8]. Soil provides vital functions supporting life on Earth: providing nutrients for plants and crops; storing and filtering water; reducing flood risk; storing carbon; providing habitat; and supporting biodiversity[9]. A single teaspoon of healthy topsoil can contain up to a billion bacteria, along with fungi, insects, and worms that break down organic matter and recycle nutrients essential for plant growth[10].

Soils also play a critical role in climate change mitigation, acting as the largest terrestrial store of carbon on land[11]. It holds nearly twice as much carbon as all vegetation and the atmosphere combined[12]. If soil is disturbed, more carbon can be released as carbon dioxide or methane, contributing to greenhouse gas emissions. Protecting soil health is not only key to food security, biodiversity, and water management, but also to keeping carbon locked in the ground, helping reduce climate risks and building long term planetary resilience.

[8] Evans, D. L., et al. "Soil lifespans and how they can be extended by land use and management change." Environmental Research Letters 15.9 (2020): 0940b2.

[9] Keesstra, Saskia D., et al. "Forum paper: The significance of soils and soil science towards realization of the UN sustainable development goals (SDGS)." Soil Discussions (2016): 1-28.

[10] Needelman, B. A. What Are Soils? Nature Education Knowledge (2013): 4(3)(2).

[11] Friedlingstein, P., et al., Global Carbon Budget 2022, Earth System Science Data p. 4811–4900.

[12] Ontl, T. A. & Schulte, L. A. Soil Carbon Storage Nature Education Knowledge (2012): 3(10)(35)

Soil biodiversity is harmed by compaction from stockpiling or heavy vehicle traffic because it leads to a lack of oxygen

Soil sealing increased from 4,500 hectares per year in the 2000s to 15,800 hectares per year between 2013-2018

Once compacted, soil structure is damaged and the soil can no longer function – the best approach is to prevent compaction in the first place

29.5 million tonnes of soil from construction sites was sent to landfill in 2018: ten times that lost due to soil erosion across the whole of England and Wales

How do soils and construction interact?

Every building, road and built structure regardless of its size or function, requires robust foundations to ensure structural integrity. These foundations are intricately linked with the soil beneath and around the development. Soils are also critical in terms of their infiltration rates and capacity to support water management across the development site. Soils are often removed as waste as part of site levelling and earthworks and other times new soil is brought in to serve diversity of purposes.

Throughout these processes however, the impact on soils themselves is often overlooked. From the moment the first vehicle drives on a development site, soils are affected. Soil stripping, earthworks, removal, compaction, and improper storage of soil can lead to costly and irreversible problems on the development site. Poor soil management often leads to an increase in erosion, surface water runoff, waterlogging, changes in soil fertility and detrimental offsite effects. The loss is not only functional it is also material: soils are a non-renewable resource yet loss to landfill is estimated to be 10 times that of agricultural soils lost to erosion in England and Wales.[13/14] Contamination during construction further contributes to unnecessary soil loss and reduced functionality.[15] As our awareness of the crucial role that soils play in climate change is increasing, there is further reason to protect them.[16]

Modern construction practices demand a shift in perspective, viewing soil not merely as a physical substrate but as a vital asset in sustainable development. By embedding soil sustainability practices into all stages of planning and construction, we can transform soil from a passive component into an active agent of sustainability delivering a wide range of benefits:

Delivering Nature-Positive Developments: By aligning construction practices with Biodiversity Net Gain and wider environmental and nature recovery goals, soils can enhance local biodiversity, turning building sites into thriving ecosystems rather than barren landscapes.

Reducing Water Nutrient Loading and Flood Risks: Healthy soils improve water infiltration and storage, reducing surface runoff and flood risks. They also filter pollutants, decreasing nutrient loading in water bodies and protecting aquatic ecosystems.

Sequestering Carbon and Achieving Net Zero: Soils are potential carbon sinks. Proper soil management during construction can prevent carbon release and even enhance carbon sequestration, aligning with broader net zero and soil carbon offsetting ambitions.

When soils are conserved and championed within construction and urban interventions, they emerge as vital partners in building resilience and climate-smart futures. They become a linchpin in strategies for sustainable development, demanding interdisciplinary cooperation to unlock their full potential. By seeing soil as an active collaborator, not just an inert material, the development and construction industry can contribute meaningfully to creating environments that are not only structurally sound but also ecologically vibrant and socially responsible.

[13] Defra ENV23 - UK statistics on waste data (2021)

[14] Graves, A. R. et al. The total costs of soil degradation in England and Wales. Ecological Economics (2015): 119, 399-413.

[15] Hale, S. E. et al. The Reuse of Excavated Soils from Construction and Demolition Projects: Limitations and Possibilities. Sustainability (2021): 13(11), 6083.

[16] Committee on Climate Change Environmental Audit Committee – Inquiry into Soil Health, Written Submission (2016): 1-6.

Why do we need a model policy for soils in local planning?

We need to fill a policy gap.

Despite the importance and value of soils and the impacts that we can have on soils through the development process there is a real lack of direction. Nationally, current policy and guidance planning and construction is fragmented and, at times conflicting – lacking coherent standards and accountability. As a result, valuable opportunities to protect soils throughout the development process are missed.

Local Planning Authorities are well positioned to lead this change. In developing their local plans, they can emphasise the importance of good soil management and set clear direction on how that can be achieved through direct and concise planning policies which give the development industry certainty over how they should treat soils throughout the entire development process – from design to use. Placing soils as a key part of consideration in planning decisions supports their protection and ensures soils continue to provide long-term societal, ecosystem and climate benefits.

So what needs to be done?

We need to recognise that soils are a non-renewable resource.

Soils are often viewed as waste during development. The model policies presented here aim for soils to be viewed as an invaluable resource to protect. In the UK, 10 times more soil is lost to landfill than to erosion by treating soil as waste, rather than recognising it is an important finite resource which once damaged or removed no longer presents that important value to the environment and society. Therefore, treating it sensitive and in a careful managed way is important in creating places which are more resilient, biodiverse and liveable.

We need to recognise the value of soils in creating thriving places to live, play, work and enjoy.

We need to carefully design the buildings, places and spaces we live in – not just for benefit of today's generation but also to benefit future generations – to make sure that they remain thriving and vibrant places to live.

Soils play a crucial role in achieving this aspiration. Places are very much shaped by how soil is treated, through the designing and engineering required to create new buildings, or the landscaping which shapes open spaces and their surroundings. The approach taken to the management and movement of soil through the development process can have profound impacts on our future, whether that be decreasing the likelihood of flooding, or improving our resilience to the impacts of climate change.

We need to manage soils for climate mitigation.

Soils are not just our largest terrestrial carbon sink, they also support the rest of our terrestrial carbon sinks such as trees. Soils can be managed in a way which supports increasing their carbon sequestration potential. However, if managed improperly and stored incorrectly, soils can release carbon dioxide and other greenhouse gases into the atmosphere.

Image: B Hontzsch

We need to involve professionals and communities in the conversations around good soil management from design to delivery.

We all need to play our part in raising the importance of good soil management. That begins with having a better understanding and education around the importance of soil and the role that it plays. Engagement in Local Soils Project highlighted a wide range of views on soil and the differing levels of knowledge that people have on its functioning and value.

Improving stakeholder and community understanding of what is meant by good soil management and the benefits it can bring is the starting point. Beginning with a conversation around how we can ensure new development supports the principles of good soil management can only help in moving forward wider education on this subject.

We need to widen awareness and education around soils.

Are people sufficiently aware of the value and importance of soil? We all probably can do more at acknowledging that soils are an important resource which can be readily and easily damaged by our actions. The creation of a model policy for soils in local planning which places more thought on how soils can be managed through the planning and construction of new development starts the journey to raising wider awareness of the issue.

We need better soil management and monitoring.

Making decisions on new development is a great start but it cannot simply just end there. Approving a planning application for development is only a point in time and it needs a long-term term vision to make sure that the construction process is monitored and managed as it progresses. The requirements in the Local Soils Model Policy for a Soil Management Plan & Strategy sets out how good soil management will be achieved and allows for an ongoing assessment to make sure what happens on the ground reflects the expectations of that Management Plan.

About the Model Policies

How were the Local Soils Model Policies built?

The Local Soils Project employed a participatory research and co-design methodology to develop adaptable model policies for sustainable soil management in urban planning. This approach was strategically chosen to harness the collective expertise of stakeholders from diverse sectors, including planning, engineering, architecture, construction, and environmental sciences. By involving approximately 50 representatives with extensive combined experience across a diversity of sectors, the project facilitated a rich exchange of knowledge and ideas, crucial for addressing the complex challenges associated with embedding soil sustainability in the development process and in the transformation of the built environment.

The research conducted was underpinned by Participatory Action Research, following a co-design methodology that prioritised extensive and active stakeholder engagement through online focus group sessions and in-person creative workshops. These activities not only encouraged design thinking about soil management but also allowed for the integration of diverse perspectives into the policy development process. Participants engaged in activities developed to build mutual learning and the co-design of policy themes. It allowed participants to share their views, even at time disparate views, on soils and their management, their role in viability and long-term development site ambition. Critical to the policy development, the process allowed participants to find areas of agreement. Throughout the process participants knowledge-shared and explored the multifaceted role of soil as a living system and non-renewable resource critical to climate resilience and community health.

This methodological approach was ideally suited to the project as it ensured that the model policies were grounded in multi-expertise knowledge, and in real-world insights and practical experience. By actively involving stakeholders, the project fostered a sense of ownership and accountability, enhancing the potential for successful implementation and long-term policy impact. The Local Soils Model Policies in this document are built off the co-designed policies from the workshops. They are designed to assist local planning authorities integrate soil sustainability into their practices, promoting environmentally sound and resilient urban development. The full discussion, methodological approach, and data sets are available in the detailed report[17].

[17] Davies, J., Calvo, M., Quinton, J.N., Dart, S., Hatch, P., & Höntzsch, B., Changede, S., Feng, S., Gill, E. (2025), Local Soils - Local Planning Policy for Sustainable Soils: Policy Co-Design Report, Soils in Planning & Construction Task Force, Lancaster University, UK.

What are the Local Soil Model Policies aiming to achieve?

The Local Soils Project identified three key themes where soils can deliver long term benefit – outlined below. Combined they support societal, ecological and climate health. Soil underpins life – supporting biodiversity, food production, water management, and climate regulation. Protecting and planning for these key functions throughout development deliver improved environmental outcomes, biodiversity, and climate resilience. Planning with soils supports strong design principles helping ensure that developments are landscape-led and have soils capable of supporting landscaping, delivering improved water management and creating healthy, sustainable places that deliver long-term value. Throughout the three themes below the key take away is: leave soil as undisturbed as possible.

Theme 1: Protect, manage and enhance soils for the benefit of the natural environment

Soil is the basis of all life, critical to carbon storage, food production, above and below ground biodiversity and climate regulation. The creation of a model policy will seek to protect soil throughout the development stages to ensure that the value and functionality of soil is protected wherever possible, creating healthy places for communities while maximising biodiversity both above and below ground.

Setting a greater emphasis on good soil management within local plans will support the statutory requirements around delivering Biodiversity Net Gain (BNG), supporting nature recovery, and make contributions towards climate mitigation and resilience. It will also help ensure gardens are functional and landscaping survives. From site choice to design to construction and operation, soils should be carefully planned for to deliver long-lasting environmental outcomes, while also delivering practical deliverable and value for money development.

Image: M Calvo

Theme 2: Protect, manage and enhance soils for their role in successful water management

Soils play a key role in ensuring that water management on development sites is successful. From holding water to slowing water flows, providing a substrate for infiltration, filtering water that moves through and off the site, soils are the front line in protecting our communities and environment from flood risk and water pollution.

During development, infiltration on a site can diminish by as much as 70-99% due to compaction from a range of activities from vehicle movement to improper soil stockpiling.[18] Development seals surfaces further impacting soil health as well as contributing to flood risk. Making sure as little area as possible is sealed and protecting soil from compaction particularly in green and blue areas, gardens and areas around SuDS can help improve long term water management.

[18] Gregory, J.H., et al., Effect of urban soil compaction on infiltration rate. Journal of soil and water conservation, 2006. 61(3): p. 117-124.

Theme 3: Recognise soils as a finite resource

Soil not spoil! Soils are not a waste product, but a vital, valuable, diverse, non-renewable resource! There would be no life on earth without soil. Soils hold our history and support our future.

The proactive use of the model policy would seek to minimise disturbance and waste of this precious resource during development. Soils should be protected and left intact as much as possible. Where soil disturbance cannot be avoided, development proposals should be expected to ensure that the soil's multifunctional benefits are retained and improved as much as possible. Where disturbed soils are re-instated – their functionality after re-instatement should be a key tool to assess success. Through the full development lifecycle, soils should be mapped, passported, budgeted and managed.

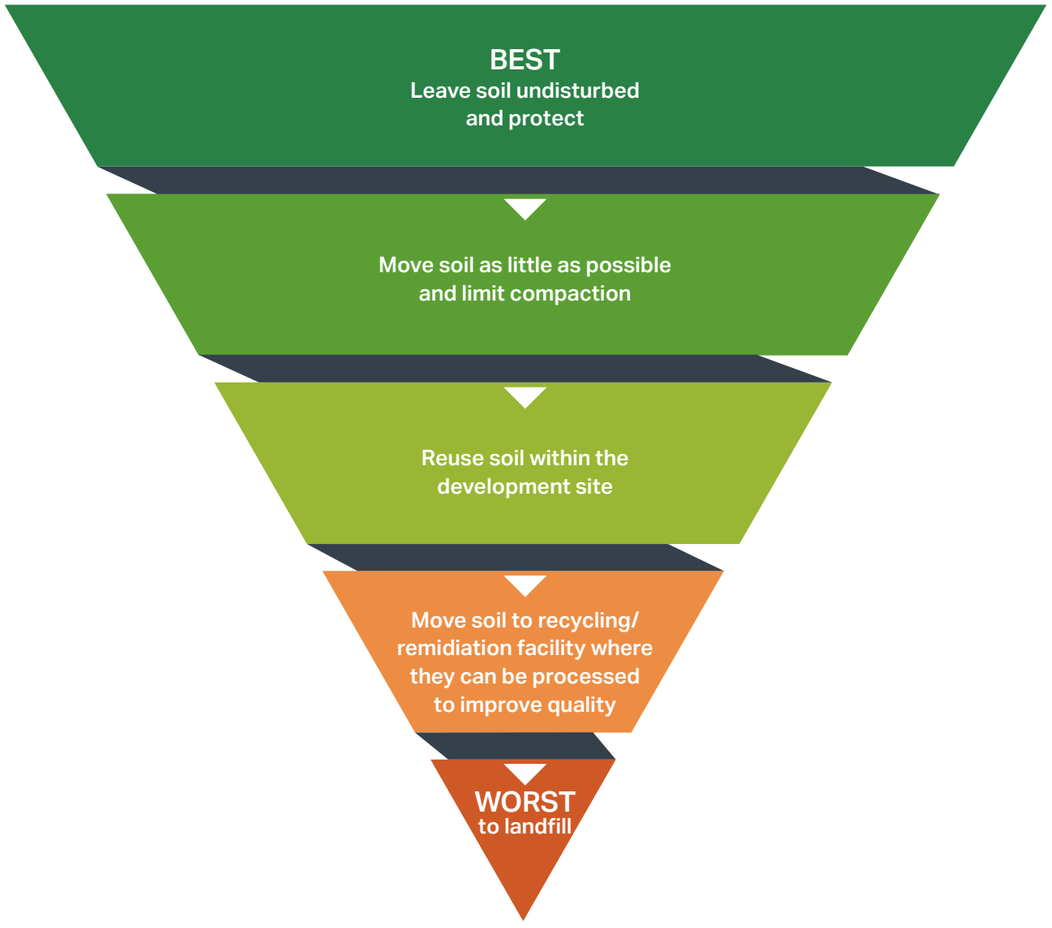
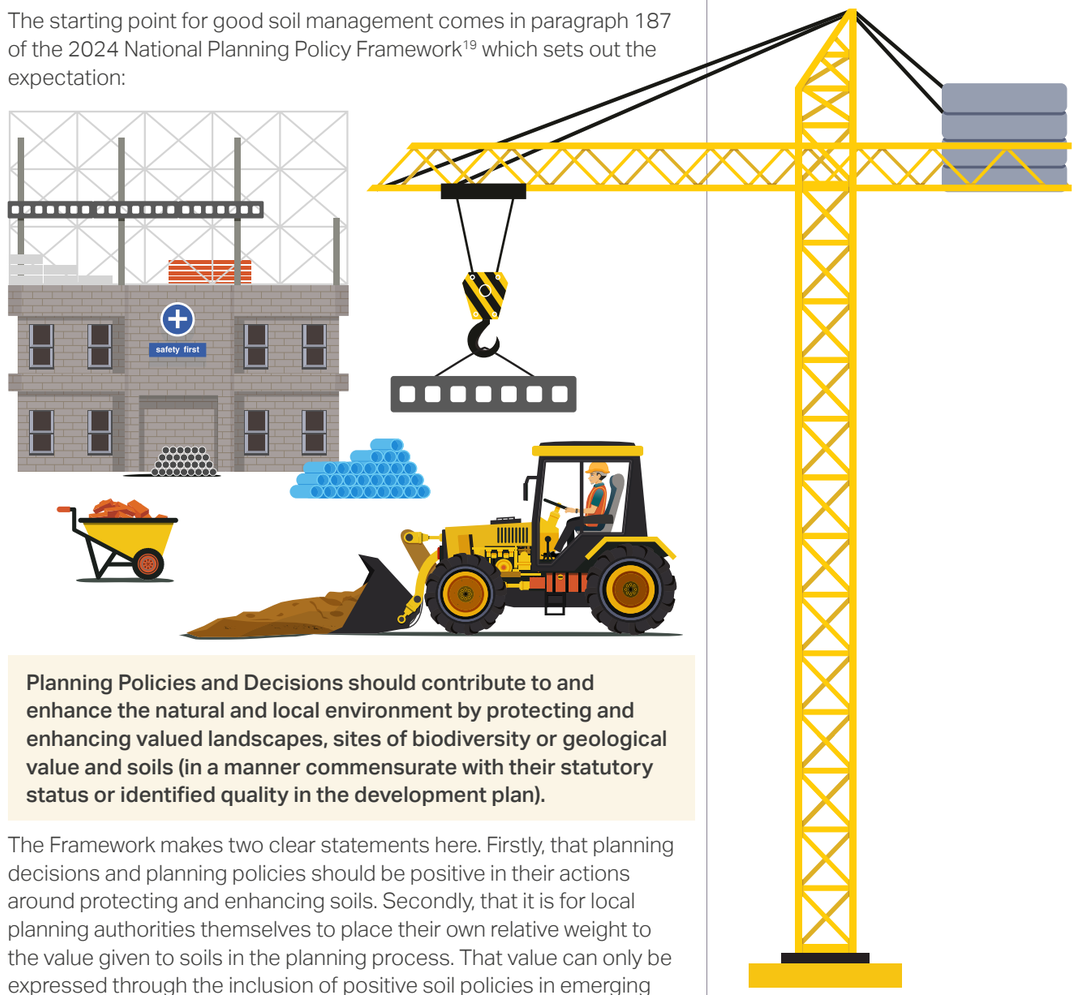


Figure 1: Soil protection hierarchy suggested as part of the co-design workshops. This hierarchy aims to keep soil in-situ where it can provide the most benefit and minimise soil lost to landfill. See full report for more detail.

How are the model policies to be used by planning authorities?

The Local Soils Model Policy has been developed to allow for flexibility for each local planning authority to use it in the manner they wish, taking the approach in either whole or in part, in order to align with their own specific ambitions and circumstances for their area. It is likely that as policies move through the plan-making process they will evolve and change to react to engagement with specific local stakeholders. There is not meant to be a single solution for addressing this issue within a local plan and the model policy is meant to be adaptable and flexible to change.

The starting point for good soil management comes in paragraph 187 of the 2024 National Planning Policy Framework[19] which sets out the expectation:



Planning Policies and Decisions should contribute to and enhance the natural and local environment by protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan).

The Framework makes two clear statements here. Firstly, that planning decisions and planning policies should be positive in their actions around protecting and enhancing soils. Secondly, that it is for local planning authorities themselves to place their own relative weight to the value given to soils in the planning process. That value can only be expressed through the inclusion of positive soil policies in emerging local development plans.

The detailed Local Soils Policy Co-Design Report has set out the importance and value of good soil management in the planning process, it has described the collaborative process taken around the issue of embedding positive soil management policies in local plans and what types of issues such a policy would need to explore. The detailed report also sets out the outcomes and implications of such policy approaches on new development proposals.

[19] National Planning Policy Framework here: https://www.gov.uk/guidance/national-planning-policy-framework

National planning policy is clear that any policy contained in a Local Development Plan will need to be evidenced and justified. They cannot be simply based on opinion or conjecture, policies which are formed on such basis will not pass the tests of soundness when it comes to Public Examination. Therefore, the detailed Local Soils Policy Co-Design Report helps provide local planning authorities with the evidence base and justification to incorporate a proactive approach to good soil management in their plans.

There is no reason to suggest that local planning authorities shouldn't or couldn't go further in terms of strengthening this evidence base. Opportunities should be taken to engage on soil management with relevant local stakeholders and it may be that authorities wish to explore the relative values of differing soil types in their local areas. All of this additional work could be used to further strengthen their approach towards a robust and sound approach to the management of soils locally.

The main outcome of the Local Soils Project work has been the preparation of a model policy that can be applied by local planning authorities to seek that developers and applicants deliver better soil outcomes within their proposed developments.

The approach taken to developing this model policy has been flexibility and adaptability. Every local authority is different when it comes to preparing local plans, they can be tailored to very different local circumstances and can have very different ambitions and aspirations depending on the place. The preparing of a model policy which is fixed and rigid is not likely to suit many authorities and so delivering a flexible approach is key.

A bespoke approach has been established within the model policy provided. Firstly, the core element to the model policy sets out the requirement for a Soils Management Plan & Strategy to accompany planning applications for major development, the policy sets out the three main components to that plan and strategy – a baseline report, construction management plan and monitoring strategy – which is described in more detail later in this note.

Additionally, to supplement the model policy, a series of policy sections have been created to slot into different parts of the emerging local plan which seeks to provide linkages to some of the specific themes on which good soil management can influence – specifically the influences that it can have on the natural environment, water management and the management of carbon.

[20] www.gov.uk/government/publications/code-of-practice-for-the-sustainable-use-of-soils-on-construction-sites

Application of the focused Soil Management Policy

Key to securing positive soil outcomes will be the inclusion of an effective soil management policy covering all stages of development within local plans. The model plan opposite sets sets out the content for such an approach providing the rationale and content for incorporating positive soil management into the design and construction processes of new development.

A central theme to this policy approach is the requirement for a Soils Management Plan and Strategy to be provided as part of the planning application process. Consideration would have to be given over when this documentation should be requested as part of the application process, best practice would suggest early consideration of this issue (prior to any approval being given). This would not only ensure that soils are considered early in the design of the site it would allow the relative value of soil and its impacts to be assessed. However, local authorities could take the approach that this is a matter that could be dealt with post-approval via a strongly worded condition.

The content of the Soils Management Plan and Strategy is important and should contain at least three core elements. Firstly, it will be important that a clear baseline is established in regard to the existing soil quality and value on the site and consequently the opportunities which may (or may not) existing for the future management and movement of soil in the site. That needs to be undertaken through the collation of primary data off the site along with the assessment of wider secondary soil data which is available. This (as with all stages) should be undertaken by a suitably qualified soil expert and be undertaken using the appropriate and up-to-date guidance at that time.

Following on from the setting of the baseline, the core element of the Soil Management Plan and Strategy is what opportunities can be taken on the development site to protect and enhance soil quality. There are a range of issues a soil management plan can consider, including the identification of soil protection zones where soil will remain in situ, how soil will be stockpiled and moved around within the site and the specific circumstances around any soil which is to be moved into the site from elsewhere as well as any soil that is to be moved off site. This element of the management plan will set out the definable actions which developers and applicants will undertake to protect the soil value of the site.

Finally, there needs to be a process of monitor and review and ensuring that the actions which have been set out in the management plan are followed through in reality. The final part of the Management Plan and Strategy should set out tangible measures for how these processes will be managed and (if conditioned) discharged by the local planning authority.

Model Policy: The Management of Soils

Soils are a valuable natural resource providing a diverse range of environmental and social benefits. Soils are potential carbon sinks and play a vital role in carbon sequestration. With improper handling and storage and disposal, they can easily be irreparably damaged and lost during the construction phases of development.

All developments are required to minimise any adverse impacts. It is expected that new development facilitates the positive role that good soil management can play in building thriving communities, delivering sustainable urban drainage, supporting biodiversity, ensuring food security, and delivering outcomes for carbon sequestration, climate mitigation and resilience.

In all cases, there should be a presumption against the import to or export of soils off the development site. Where this is demonstrated to be unavoidable then imported soils are expected to be responsibly sourced.

All major development proposals shall demonstrate careful consideration of sustainable soil management through the submission of a Soil Management Plan and Strategy comprised of three parts.

1. Soil Quality Baseline Report that provides a clear baseline assessment of the existing soil quality of the site. Where development is a proposed greenfield site, an Agricultural Land Classification Survey (including desktop and fieldwork) and report must be included.

This Soil Quality Baseline Report will set a clear understanding of existing soil quality within the site and identify opportunities for soil protection, management, and improvement.

2. Construction Phase Soil Management Plan that addresses the following issues:

I. How the soil protection hierarchy of avoid, minimise, reuse, recycle/remediate and last of all landfill has been applied to the design and layout of the development and reduced the need to move and compact soils in the construction phase;

II. The identification of Soil Protection Zones where soils will remain in-situ, protected, uncontaminated and uncompacted throughout construction phases;

III. Soil protection for all open areas in the site plan, including consideration of protecting the soil carbon content, role in drainage, opportunities for future planting and ensuring success of future planting and protecting biodiversity and natural features.

IV. Identification of suitable onsite soil storage areas and a stockpiling plan for where soils are being moved and stored onsite. The management plan should ensure that compaction does not occur with the soils stored in these areas. All stockpiles shall be grass seeded at a minimum and managed in a way which reduces loss of soil.

V. Where soil is being stripped or moved within the development site, the management plan should set out measures to how these movements have been minimised to reduce disturbance both to existing soil structures but also natural features such as trees, hedgerows and water features.

VI. Where soil is to be moved into and out of the site during the construction process. information shall be provided on the source of such soils and why the import of that soil is necessary for the development.

VII. Where damage to soils will occur, a plan for their restoration and enhancement is laid out.

3. Post-Construction Soil Management and Monitoring Strategy which sets out a clear, realistic and measurable mechanism to ensure that the management of soils is appropriately undertaken post-construction.

The Soil Management Plan and Strategy is expected to reflect, at a minimum, guidance as outlined in the Defra Code of Practice for the Sustainable Use of Soils on Construction Sites[20] or most up to date guidance at the time of submission. It must include all expected direct and indirect as well as permanent and temporary impacts. The Council will prepare and publish practice guidance which will seek to assist applicants on the expected content of a Soil Management Plan and Strategy.

Cross referencing of soils within local plans

Including the bespoke Soils Management Policy in Figure 2 will be a cornerstone for achieving effective soil management. But there is clear value in making the necessary links between recognising the value of soil and the benefits that it provides, particularly when thinking about the key themes identified by stakeholders around the natural environment, water management, and soils as a resource.

To achieve such linkages, supporting policies can be strengthened further through referencing the importance of good soil management in other key policies areas, particularly policy areas which relate to protection of the natural environment, water management and carbon mitigation.

Providing greater levels of cross reference within an emerging local plan is likely to strengthen any approach to positive soil management and highlight the important linkages that good soil management can have with a wide range of issues. It is important to note that with all these additional policy sections, the requirements for a Soil Management Plan & Strategy remains a key requirement.

To help shape some context for this the second approach has provided policy wording which can be included in matters relating to water management (Box 1), protecting the natural environment (Box 2) and carbon mitigation (Box 3).

Box 1: Model Policy Wording for Policies around Water Management

The positive management of soil through the construction phase of development is critical to ensuring long term effective water management. The inappropriate trafficking, movement, storage or handling of soil can lead to the unnecessary compaction and breakdown of soil structure which can restrict water filtration through soil sealing and lead to the pooling of surface water and increase flood risk.

To ensure these impacts are mitigated, all major development proposals will be required via Policy XX of this Plan to submit a Baseline Soil Quality Report, Soil Management Plan and Post-Construction Soil Management and Monitoring Strategy as part of the application process which sets out how matters around the filtration and water management will be addressed.

Box 2: Model Policy Wording for Policies around Protection of the Natural Environment

Soil is a vital ecological resource which is vulnerable to damage through intrusive and unnecessary disturbance during the construction phases of new development. It is important that such disturbances are avoided, managed, and mitigated, particularly on the most sensitive areas of development sites to protect not only the ecological value of soils themselves but also ensuring the long-term protection of natural features on the site, including habitats, trees, hedgerows, and water features.

To ensure these impacts are fully considered and appropriate plans are put in place, all major development proposals will be required, via Policy XX of this plan, to submit a Baseline Soil Quality Report and a Soil Management Plan as part of the application process which sets out how matters around protecting ecological value will be addressed.

Soils must be included in the Environmental Impact Assessment (EIA). The consideration and inclusion of soils in the EIA shall follow, at a minimum, IEMA Guidance A New Perspective on Land and Soil in Environmental Impact Assessment[21] or most up to date guidance at the time of assessment.

[21] Guidance is available from www.iema.net

Box 3: Model Policy Wording for Policies around Carbon Mitigation, Sequestration & Net Zero

Soils are a critical terrestrial carbon sink. Therefore, effective soil management is key to preventing the unnecessary release of carbon from soils. The disturbance of soil can result in significant releases of carbon into the atmosphere and the level of emissions which can occur can vary depending on the type of soil which is exposed. The aim of all development should be to avoid disturbance where it is possible to do so, particularly of soils which are identified to have high carbon content. Where this is not possible the aim will be to mitigate those impacts to minimise emissions of carbon.

Areas of peatland and carbon rich peat soils and peaty soils are to be prioritised for protection. Development on priority peatland and peatland must be completely avoided. Development on carbon rich soils should be avoided. Where development is unavoidable the soil protection hierarchy is critical.

To ensure that these impacts are fully considered, and appropriate mitigation is put in place, all major development proposals will be required via Policy XX of this plan to submit a Baseline Soil Quality Report and a Soil Management Plan as part of the application process which sets out how matters around reducing the emission of carbon through the construction phase.

Soil carbon must be included in the Environmental Impact Assessment. The consideration and inclusion of soils shall follow, at a minimum, IEMA Guidance A New Perspective on Land and Soil in Environmental Impact Assessment or most up to date guidance at the time of assessment.

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