FINDINGS OF A STAKEHOLDER WORKSHOP ON THE FUTURE POLICY AND REGULATION OF EXCAVATED MATERIALS IN ENGLAND AND WALES

PAPER 3: FURTHER CONSIDERATION OF SHORT-LISTED OPTIONS (GREEN PAPER)

Authors: Tom Henman (SiLC PTP and Board Deputy Chair and RSK – funder of the CIRIA Soil CoP), Louise Beale (SiLC PTP Chair), Sarah Bullock (SiLC), Claire Dickinson (SiLC PTP and Board), Tim Hull (SiLC PTP), Joanne Kwan (CIRIA) and Paul Nathanail (SiLC PTP and Board).

1. INTRODUCTION

The Specialist in Land Condition (SiLC) Professional & Technical Panel (PTP) and CIRIA's Soil Community of Practice (CoP) convened a stakeholder workshop on 1 February 2024 to explore alternative policy and regulatory approaches for excavated soils and other materials on development projects. The desired outcomes from the workshop included examining what good regulation and policy in this area would look like, the benefits that could be achieved, and the barriers to change.

This, the third of three papers, provides shortlisted 'options to consider' for future improved policy and regulation of excavated materials, which can be considered akin to a 'green paper'. This follows the first paper[1], which provided the basis for the workshop and the key considerations that informed it, and the second paper[2] which provided details of the scope and factual outputs from the workshop. The views expressed in this paper are those of the authors only.

It should be noted that the terminology used in the workshop was 'soils' but as a sub-set of 'excavated materials', this wider terminology has been adopted in all papers. The focus was on England and Wales due to regulatory divergence across the rest of the UK. However, the regulatory issues and challenges associated with the sustainable reuse of excavated materials are noted not to be specific to England and Wales, or indeed the UK as a whole, but apply internationally.

2. SHORTLISTED SOLUTIONS

The five highest ranked solutions identified during the stakeholder workshop for improved regulation of excavated materials were as follows:

1. *'Make the disposal of excavated materials to landfill very difficult or a last resort by having a presumption of resource reuse rather than a default of waste disposal.*
2. *The value of excavated materials to be a material consideration in planning policy and referenced in planning conditions.*
3. *Exclude excavated materials from the definition of waste unless they cannot be treated to render them usable.*
4. *Set up an effective excavated materials banking system that would bridge the gap between excavation and reuse.*
5. *Prioritise circular economy and carbon reduction over seeing excavated materials as a waste in both regulation and policy'.*

The first three of these were considered by the authors to have the greatest potential benefit/ impact and these have been considered and developed further in this paper.

3. FURTHER DEVELOPMENT AND CONSIDERATION OF SHORTLISTED OPTIONS

Four options have been developed to take forward the three highest ranked solutions.

Option 1: Make the disposal of excavated materials to landfill very difficult or a last resort by having a presumption of resource reuse

As discussed in detail in the first paper[1], if the UK government wishes to promote a brownfield-first agenda then it needs to remove some of the barriers to development. The current regulatory

[1] https://www.silc.org.uk/content/uploads/2024/07/SILC_CIRIA-CoP_Reuse-workshop_1_setting_the_scene_Rev00.1.pdf
[2] https://www.silc.org.uk/content/uploads/2024/07/SILC_CIRIA-CoP_Reuse-workshop_2_workshop_findings_Rev00.1.pdf

approach is also not compatible with the waste hierarchy – a legal requirement – as landfill disposal of excavated materials is easy and unchallenged, whereas development projects effectively have to justify why reuse is needed. Existing regulatory mechanisms, such as DoWCoP and U1 exemptions, have been abused by some in the industry, which has led to a tightening in their application but without a corresponding increase in regulatory resources. The net effect is that while many developers and contractors want to reuse excavated materials rather than send them to landfill, the timescales to obtain regulatory agreements to allow this are often prohibitive. Revised policy and regulation are therefore needed that prioritise reuse of excavated materials and disincentivise disposal to landfill but at the same time maintaining existing environmental protections.

Option details

There are a range of possible policy approaches that could be considered with the most radical being imposition of an outright ban on landfill disposal of excavated materials, or for sub-classes such as topsoil. Whilst such a ban has been applied successfully over time to other waste streams, such as organic-rich and liquid wastes, it would likely face strong opposition from some sectors and exemptions would be needed for disposal, for example daily cover and restoration materials for landfills. Alternatively, prioritising reuse over disposal could be achieved by amending the waste regulatory regime to provide 'checks and balances' that material does not have resource value and cannot be reused, for example through application of a pre-notification process before excavated material can be removed off-site for disposal. Putting such additional 'red tape' in place would likely be unpopular with the development sector due to time and space constraints on some development sites, although use of 'soil banks' as proposed by the Environment Agency could have a role to play in holding excess materials. The assessment of reuse potential could also link to proposed regulation under planning covered in Option 2a below.

An alternative would be fiscal changes that support reuse and disincentivise disposal of excavated material to landfill that can be reused. Rather than being punitive for contaminated soils (that are already more costly to treat or dispose of), the landfill tax regime could be revised to reflect resource value/ quality, for example the higher rate of tax could be applied to materials that have a higher resource value. For reference, the BRE report prepared for Defra[3] in 2021 recommended consideration of a new landfill tax bracket for non-hazardous soils to avoid confusion over whether material is 'active' or 'inactive'.

Where has it been done before?

In Hong Kong, the approach to managing construction waste in Hong Kong focuses on the use of public sorting facilities for reusable inert construction waste[4]. The sorting facilities temporarily stockpile inert construction wastes for later reuse in reclamation and site formation works. Landfill disposal is limited to non-inert construction waste (typically non-reusable and organic materials excluding topsoil).

Potential impact and ease of implementation

Key benefits of this option include:

- supports a brownfield- first agenda as reuse tends to be more complex on these sites due to the presence of made ground and other anthropogenic materials, resulting in quicker and easier development of these sites without regulatory delays due to permitting timescales.
- compatible with the waste hierarchy and circular economy principles, including promoting reuse of excavated materials on site and reducing quarrying of virgin material and associated transport movements.
- drives and enables sustainable reuse of excavated materials and directly disincentivises disposal to landfill.

[3] BRE, Identification and short-listing of policies to reduce soils entering landfill in England - EV0154, https://randd.defra.gov.uk/ProjectDetails?ProjectId=20776

[4] https://www.gov.hk/en/residents/environment/waste/management/constructionwaste.htm

- helps to conserve soils on site which have resource value.
- gives the power to the project team to be flexible and innovative, designing the work and the programme to their requirements and the materials available.
- a well-designed fiscal mechanism would include the ability to provide suitable funding of regulators who gain only revenue via the current system from disposal rather than reuse. This would enable the EA to attract and recruit the skills and experience needed to provide better advice. In the long term, this will encourage more collaboration between regulators and the industry to improve overall skills and competency.
- compatible with and prioritises pathways to Net Zero needed by the construction sector, particularly with respect to soil conservation and carbon.

Based on this wide range of benefits, the potential positive impacts are assessed to be high. Implementation of this approach would involve:

- changes to waste policy and regulation, and/ or
- changes to landfill tax or development of other fiscal mechanisms

Depending on the specific approach taken, this option is expected to be of medium-high complexity to develop and implement and would take considerable time; it would need also significant buy-in from regulators, HMRC/ Treasury and other stakeholders before it was implemented.

Option 2a: Regulate reuse of excavated materials on site for development through the planning regime

This proposal would involve the regulation of on site reuse of materials for development through the planning regime, thereby limiting dual regulation. Application of the waste regulatory regime would only be required where treatment (including remediation) of excavated materials is needed.

Option details

An 'excavated materials reuse plan' to be provided as part of the planning submission would detail the volumes and quality of material to be excavated. It would also detail how the reuse of the material is a necessary and certain part of the planned works, how it is suitable for the proposed use without any processing or treatment, that no more than the quantity necessary is used and that the use of the material will not result in pollution of the environment or harm to human health. Any use of materials that do not meet the criteria would be regulated by the Environment Agency/ NRW under waste management controls. They would also continue to act in an advisory capacity for risks to controlled waters in its role as a consultee. Should this option be combined with Option 3, the criteria could be modified, for example for waste definition based on environmental risk rather than certainty of use.

The excavated materials reuse plan would be a detailed strategy for the project/ scheme agreed with the local planning authority, alongside or as part of a remediation strategy where relevant, and enforced via planning conditions. This would also provide a mechanism to mandate and set targets for beneficial reuse of excavated materials and to conserve resource value. The 'excavated materials reuse could be reviewed, by QPs through DoWCoP, or by SQPs through the NQMS Scheme, similarly to reviews undertaken on land contamination reports. This would ensure no additional burden is placed on regulators.

It is noted that there are parallels between the proposed excavated materials reuse plan and materials management plans (MMPs) produced under the current version of the CL:AIRE DoWCoP, however the latter is a mechanism designed to address waste regulatory requirements only and has no role under the planning regime, so this would be a modification of the current approach. A similar approach was advocated in the BRE report[3], which included an option for a 'Specification for MMPs (part of DoWCoP) and validation as a planning condition. Local authority requirements and enforcement.'

Where has it been done before?

A similar approach to the 'excavated materials reuse plan' was previously developed by SEPA through their 'Land Remediation and Waste Management Guidelines'[5] and has been successfully applied in Scotland since 2009. The introduction of Biodiversity Net Gain (BNG) in England in 2023 also shows how sustainable development and achievement of environmental net gains can be implemented through the planning regime.

Potential impact and ease of implementation

Key benefits of this option would include:

- supports a brownfield-first agenda and making it easier and quicker to develop sites without regulatory delays due to permitting timescales.
- compatible with the waste hierarchy and circular economy principles, including promoting reuse of excavated materials on site and reducing disposal off-site, quarrying of virgin material and associated transport movements.
- effective regulation achieved but dual regulation avoided, thereby reducing the burden on the development sector and the Environment Agency/ NRW.
- compatible with pathways to Net Zero needed by the construction sector, and
- helps to conserve soils on site which have resource value.

Based on this wide range of benefits, the potential positive impacts are assessed to be high. Implementation of this approach would need to include:

- modification and additions to NPPF, and
- preparation of supplementary guidance by the Environment Agency/ NRW, and/ or modification of the CL:AIRE DoWCoP or NQMS.

This approach is expected to be moderately easy to develop but may face strong opposition from the Environment Agency and some other stakeholders as it could be perceived to place a greater burden on the planning regime. Also as noted by BRE[3], there is a lack of resources for management and enforcement in planning. Exemptions from planning approval, such as permitted development, would also need careful consideration.

Option 2b: Use of planning policies and conditions to enforce soil resource assessments and effective soil management

This proposal would make soil resource assessments and effective soil management a mandatory requirement under the planning regime. The focus would be on soils with resource value rather than wider excavated materials, and it would therefore complement Option 2a. This approach would align with the Defra 'Construction Code of Practice for the Sustainable Use of Soils on Construction Sites'[2] and could be aligned with LPA's Net Zero and BNG policies.

Option details

For this option, planning conditions would be used to provide an effective mechanism for regulating assessment of soil resource potential and its effective management and conservation during development. This could be achieved through making the resource value of soils a material consideration in planning policy or through imposition of the requirement to prepare a 'Soil Sustainability Plan'/ Soil Resource Plan, informed by Soil Resource Surveys.[6] The types of sites to which this requirement is applied could be determined at either NPPF or LPA level, such as for larger greenfield sites, smaller greenfield or brownfield sites affected by specific flooding or drainage issues, or sites having a specific need for reinstatement for landscaping and after-use (including to meet BNG requirements).

[5] https://www.sepa.org.uk/media/28317/land-remediation-and-waste-management-guidelines.pdf
[6] As per Defra 'Construction Code of Practice for the Sustainable Use of Soils on Construction Sites, 2009

Where has it been done before?

Some LPAs have already developed supplementary planning guidance on soil management and associated planning conditions. An example of this is West Lothian Council, where Policy ENV 5[7] states '*On large greenfield sites, over 1.0 ha, applications for planning permission in full, or for 'matters specified in conditions' (MSC), shall be accompanied by a Soil Sustainability Plan (SSP)… On smaller sites, and large brownfield sites, where consultation with the council's Flood Risk Management Team has highlighted specific flooding, drainage issues, or particular reinstatement needs for landscaping and after-use proposals, planning conditions will be imposed which ensure soil conservation, minimise the risk of compaction and include remedial measures for contamination… Alternatively, consultation may raise the requirement for the submission of a full Soil Sustainability Plan either prior to the grant of planning permission, or before work starts on site*.' SSPs are based on site specific detailed soil surveys and include details of soil properties; areas to be stripped or protected; methods for stripping, stockpiling, re-spreading and ameliorating soil compaction; schedules of volumes for each material; monitoring suitability of reinstated materials; expected after-use; and persons responsible for supervising, monitoring and compliance.

As for Option 2a, the introduction of BNG in England shows how sustainable development and achievement of environmental net gains can be implemented through the planning regime.

Potential impact and ease of implementation

Key benefits of this option include:

- recognises and protects soil as a precious and irreplaceable natural resource and the wide range of services it provides that are of benefit in tackling the climate and biodiversity crises.
- enables LAs to drive sustainable development in their area.
- compatible with pathways to Net Zero needed by the construction sector, particularly with respect to soil conservation and associated carbon, and
- minimises problems, like drainage and flooding, for development sites and adjacent land uses, where soil has been poorly managed during the course of construction, and would help mitigate future climate change effects.

Based on this wide range of benefits, the potential positive impacts are assessed to be moderate-high. Implementation of this approach would involve:

- modification and additions to NPPF linking to the Defra Construction Code of Practice for the Sustainable Use of Soils on Construction Sites'.
- development and adoption of LPA planning policies including model planning conditions, and
- training of LPA staff so they are competent to review soil-related submissions.

This approach is expected to be relatively easy to develop and implement. However, as Option 2a there is a lack of resources in LPAs for management and enforcement, exemptions such as permitted development would need careful consideration, and the approach could face opposition from those seeking to 'streamline' the planning system.

Option 3: Exclude excavated materials from the definition of waste unless they cannot be treated to render them usable

As discussed in detailed in the first paper, there is a significant opportunity to drive the sustainable reuse of excavated materials by revising the definition of waste originating in the EU Waste Framework Directive that 'any substance or object which the holder discards or intends or is required to discard' and how this definition is applied and implemented in the UK.

Option details

There are a range of potential options to consider in amending the definition of waste. At one end, all excavated materials could be excluded from the definition, including those that are contaminated and

[7] West Lothian Council, Planning Guidance: Soil Management & After Use of Soils on Development Sites, 2021

can be treated to make them suitable for reuse; however, as mentioned within the BRE report[3] and recognised at the workshop, there would still need to be controls in place to ensure risks to humans are mitigated appropriately and that the environment continues to be protected, particularly for soil treatment/ remediation. Therefore, it would likely to be preferable that changes in the definition of waste focus on certainty of use/ 'intention to discard'. Current definitions and their application also do not take into account the practicalities and flexibility needed on development projects where changes occur through the design and construction process. For example, the BRE report[3] recognised that greater volumes can end up being excavated due to design changes or unforeseen ground conditions and 'there may be a need for material at a later date in the project but it has already been classified as waste and as such is more difficult to use.'

By amending the definition of waste, and/ or how the definition is implemented though guidance, excavated materials could be excluded from becoming a waste if they do not require treatment before reuse, and are not waste until it has been identified that a) the material has no value for reuse and b) there is a confirmed intention is to discard. This would allow, for example, for excavated materials to be stockpiled on site for more than 12 months and not be classified as waste by default, a major current issue on many development sites.

This approach could be combined with Options 2a and 2b with regulation of the reuse of excavated materials led by the planning regime, and its use to conserve soils with resource value through the planning process. The production of an 'excavated materials reuse plan', would provide evidence to regulators of the intention to reuse excavated materials which do not require treatment. The plan would be written to support reuse and therefore there would be a requirement to justify why a material needs to be discarded, instead of justifying the intent to reuse, in alignment with Option 1.

Where has it been done before?

As discussed in the first paper, there are numerous examples of other waste streams where this definition is not applied so rigidly for the benefit of society as a whole, minimising waste and supporting the development of a circular economy.

Potential impact and ease of implementation

Key benefits of this option include:

- supports a brownfield-first agenda and making it easier and quicker to develop sites without regulatory delays due to permitting timescales.
- provides a clear working methodology on what excavated materials, and in what scenarios a material can be reused, without it being considered a waste.
- compatible with the waste hierarchy and circular economy principles, including promoting reuse of excavated materials on site and reducing disposal off-site, quarrying of virgin material and associated transport movements.
- clearer and more flexible definitions of waste that take account of the practicalities of development would support better compliance and development of better mutual relationships and trust between regulators and regulated parties.
- gives the power to the project team to be flexible and innovative, designing the work and the programme to their requirements and the materials available.
- reduced burden on regulators, who can concentrate on more complex or contaminated sites/ materials.
- recognises and protects soil as a precious and irreplaceable natural resource and the wide range of services it provides that are of benefit in tackling the climate and biodiversity crises, and
- compatible with, and prioritises circular economy and pathways to Net Zero needed by the construction sector, particularly with respect to soil conservation and carbon.

Based on this wide range of benefits, the potential positive impacts are assessed to be high. Implementation of this approach would involve:

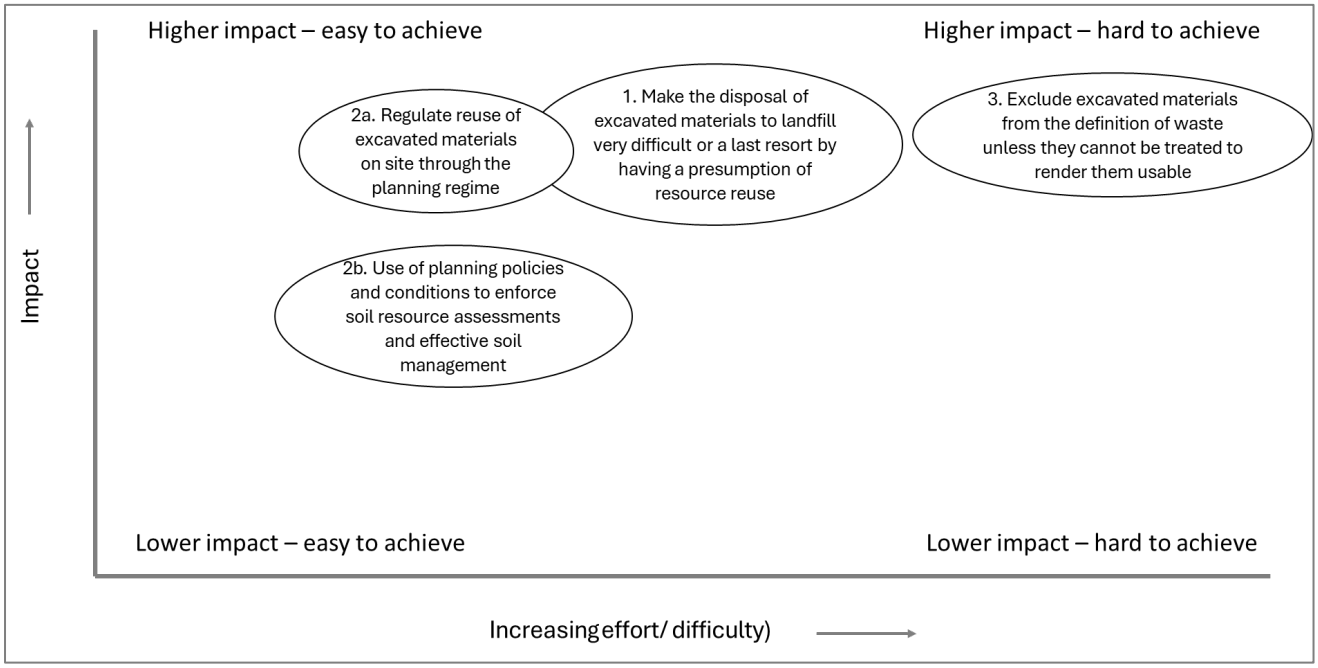
- modification and additions to relevant legislation and guidance on implementation of the waste definition for excavated materials, and
- regulation and review of a plan via adoption of LPA planning policies including model planning conditions,

This approach is expected to be relatively complex to develop and implement and would take time; it would need also significant buy-in from regulators and stakeholder consultation to agree it would be implemented.

4. CONCLUSIONS & NEXT STEPS

In summary, to respond to the issues and challenges on sustainable reuse of excavated materials considered in the SiLC/ CIRIA Soil CoP workshop, four options have been developed for further consideration. These are: 1) Make the disposal of excavated materials to landfill very difficult or a last resort by having a presumption of resource reuse; 2a) Regulate reuse of excavated materials on site through the planning regime; 2b) Use of planning policies and conditions to enforce soil resource assessments and effective soil management and 3) Exclude excavated materials from the definition of waste unless they cannot be treated to render them usable. The proposed approach for each option has been outlined and examples have been provided of adoption elsewhere.

The potential benefits and impacts and ease of implementation have been considered for each option as summarised in the graphic below. Based on this, the options (2a/ 2b) relating to greater use of the planning system to regulate reuse of excavated materials appear to offer higher potential impacts combined with relative ease of implementation. Options 1 and then 4 offer similar benefits but are considered increasingly difficult to implement.



The next steps for taking forward these options would be to undertake further consultation with key stakeholders on the findings of this 'green paper'. This would include Defra, Ministry of Housing, Communities and Local Government, Environment Agency, NRW, as well as the private sector. This is proposed to be achieved initially through the discussion at the National Brownfield Forum.

August 2024