Common Ground: Preventing recontamination through collaboration

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From Pollution to Solution: Industry Views
ial Reuse of Soil

RNZ News Life Radio Podc

Don't waste soil

2 MIN READ

New report: New Zealand wasting billions by landfilling sable soil

Webinar – Soil Reuse & Logistics in Urban Environments

ROD LIDGARD - PDP | 17 APRIL 2024 | 4 MIN READ

The problem with surplus soils

BRANCH EVENT AUCKLAND

Auckland Branch Event – Rethinking Soil: From Disposal to Resource

Start Date: April 29, 2026

WASTEMI

Soil: The hidden giant in construction waste

Can you Dig it? The challenges of soil reuse.

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The Problem

- Land development often generates surplus soil
- Emphasis should be on retaining soils on site, or reusing where possible

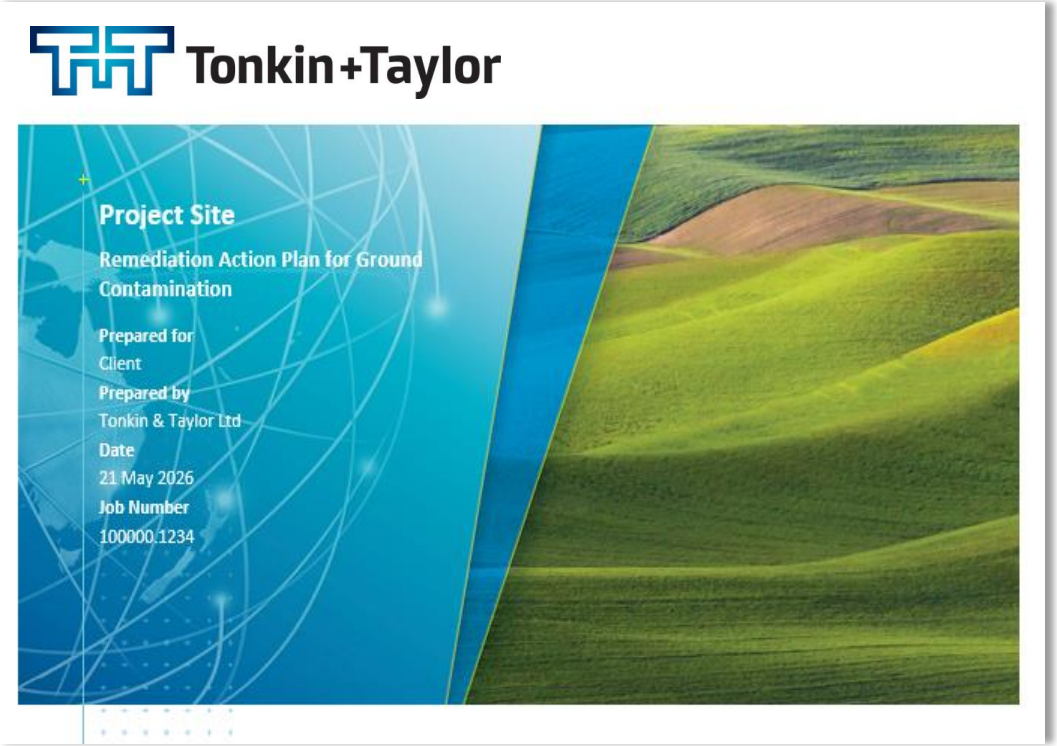
Image sourced from Geotesta

BUT

- Problematic if not managed correctly from start to finish

The Bad, and the Ugly

- Three case-studies
- All sites operated under a CSMP or RAP with controls to manage imported material…
- …and all had something go wrong anyway



Case Study #1

- Topsoil imported from nearby rural property, tested on site
- Trace asbestos, unknown source
- Further testing to assess risk, retained on site
- Better awareness of the risks needed by the contractor and client

Image sourced from Shutterstock

Imported fill management: any imported fill shall either be natural material sourced directly from a quarry, or shall be confirmed to meet the WRC cleanfill definition. Soil testing may be required prior to material being brought to site. Hardfill sourced directly from a quarry does not require testing. Records (summaries or dockets) of imported fill material shall be kept for later validation reporting.

Case Study #2

- Topsoil imported from local developments, tested bulk sample provided by contractor
- Inconsistencies, ACM contamination
- Eventually replaced with confirmed clean topsoil
- Awareness of responsibilities needed by contractor

Imported material	• All soils imported to site must either be hardfill direct from a quarry or the following: – If recycled hardfill or crushed concrete sourced from offsite is proposed to be used, prior permission would need to be sought from Council; – Be derived from a source, which is previously verified in accordance with the methods described in the NES Soil Regulations, as being a piece of land to which the NES Soil Regulations do not apply; or – Have been adequately investigated in accordance with MfE Contamination Land Management Guidelines No.5 – Site Investigation and Analysis of Soils (Revised 2021) by a SQEP to meet the WRC 'cleanfill' definition. Testing will depend on the potential contamination sources and may include metals, PAH, organochlorine pesticides (OCPs) and asbestos content. • It is preferable that the material is tested at its source prior to its importation. However, if this is not possible, then the Contractor shall stockpile the material in a clean area of the site until test results are available.

Case Study #3

- Topsoil imported from adjacent HAIL site, no SQEP consultation
- Conservative testing, confirmed contamination below consent criteria
- Retained on site
- Consent allowed for flexibility
- More communication needed

Imported materials: any imported fill (e.g. topsoil for landscaping) shall, as a minimum, meet NESCS contaminant standards with respect to a commercial/industrial land use and (if applicable) shall meet imported material requirements set out in the earthworks consent. Soil testing may be required prior to material being imported to site and this shall be confirmed with the Contaminated Land Specialist. Hardfill or sand sourced directly from a quarry does not require testing.

The consent holder shall ensure that the contamination level of any imported soil complies with soil contaminant standards for a commercial/industrial use or ecological-soil guideline values for a commercial use (Ref: Cavanagh, JE Munir K, 2016 Development of soil guideline values for the protection of ecological receptors: Technical document. Landcare Research Report for Envirolink Tools Grant C09X1402), whichever is lower.

The Good! Case Study #4

- Large development with excess topsoil -> small site requiring soil for capping
- Tested in advance of importing
- Compliant with consent conditions
- Sustainable outcome for both parties

12.)All cleanfill imported to the site and deposited under the conditions of this consent shall be limited to Virgin excavated natural materials (VENM) such as clay, soil and rock that are free of:

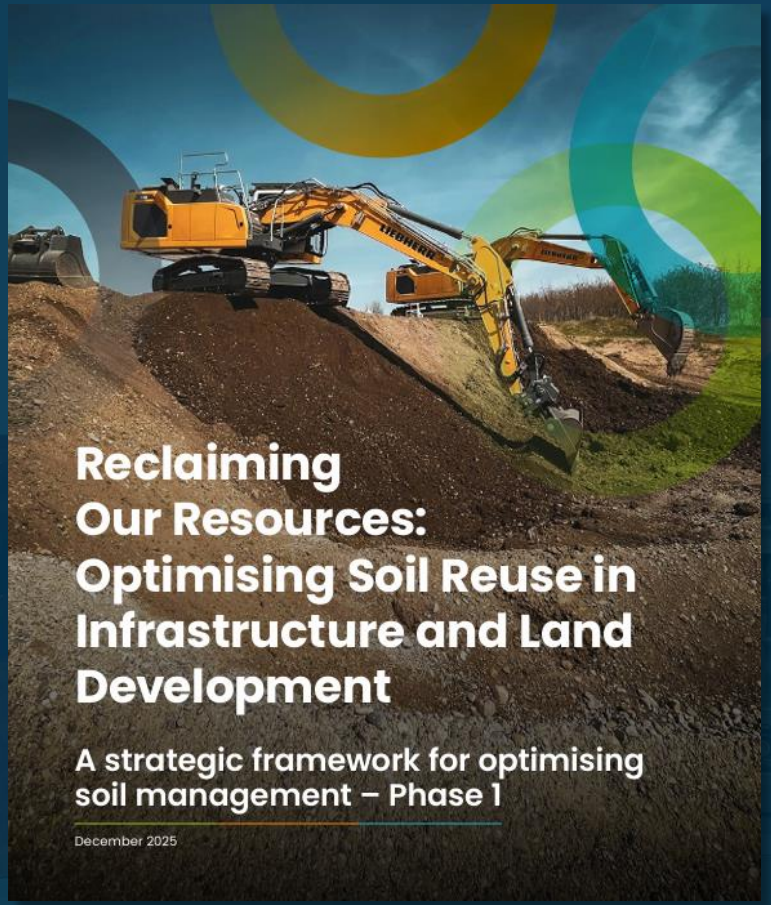
- Combustible, putrescible, degradable or leachable components;
- Hazardous substances or materials (such as municipal solid waste) likely to create leachate or disposal practices;
- Materials such as medical and veterinary waste, asbestos, or radioactive substances that may present a risk to human health if excavated;
- Contaminated soil and other contaminated materials; and
- Liquid waste.

Lessons Learned

1. Collaborate with regulators early, and check consent conditions
2. Fit-for-purpose soil reuse criteria
3. Communicate risks, requirements & responsibilities clearly
4. Consider most appropriate soil testing regime
5. Regular project check-ins and site visits

Image sourced from Bay of Plenty Regional Council

Next Steps



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