

Key Gaps and Barriers Identified

1. Regulatory Barriers

- 1.1 Lack of clear and unified regulations and standards for soil reuse.
- 1.2 Existing regulatory frameworks such as the NES-CS create hurdles, including interpretations that soil above “cleanfill” or “background” levels requires consent and disposal to authorized facilities, leading to limited reuse options.
- 1.3 Consent conditions and regulatory uncertainty discourage reuse (analogous to the use of section 87BB - Activities meeting certain requirements are permitted activities).
- 1.4 Disconnect between various governing authorities (e.g., regional councils vs local councils) results in fragmented management and oversight.
- 1.5 Lack of incentives and enforcement around sustainable soil management and reuse.

2. Soil Definition and Standard Issues

- 2.1 Multiple and varied definitions of soil within NZ regulatory context lead to confusion and inconsistency.
- 2.2 Many standards focus on “good ground” which excludes many soil types (e.g., topsoil) essential for ecosystem function, leading to over-stripping and soil disposal.

3. Perception and Liability

- 3.1 Strong perception of liability/risk associated with reusing soils that exceed background contamination.
- 3.2 Public, regulator, and developer risk aversion favour disposal over reuse.
- 3.3 Stigma on properties with reused or formerly contaminated soils, affecting property value (economic and cultural) and financing.

4. Technical and Site Investigation Issues

- 4.1 Inadequate or inconsistent site investigations and characterisation of soils inhibit appropriate assessment of soil suitability for reuse.
- 4.2 Confusing or conflicting definitions of “background” soil, cleanfill, and contamination impede clear risk assessments.
- 4.3 Lack of standardised testing protocols and soil specifications that support ecosystem and engineered needs, such as supporting deeper-rooted vegetation or stormwater management.
- 4.4 Some sites/soils are simply not suitable (poor properties: too wet, too unstable, too highly contaminated, high organic content, etc.) for reuse in certain engineering applications.
- 4.5 Geotechnical requirements (ground suitability, building codes, specifications, etc.) often necessitate strict soil quality controls, which may contradict environmental and circular economy objectives.

5. Logistical and Economic Barriers

- 5.1 Lack of/mismatch of supply and demand for surplus soils, with a lack of infrastructure options to manage soils.
- 5.2 Convenience and familiarity make disposal easier and more attractive than reuse.

- 5.3 The direct cost of disposal, and lack of financial incentives or streamlined processes for reuse, means potential savings from retaining and reusing surplus soils are not realised.
- 5.4 Lack of coordination and early planning and engagement regarding soil reuse in project contracts and development phases.
- 5.5 Projects often operate under tight timelines. Soil reuse planning or extra testing / consents can introduce delays, which contractors see as risky.
- 5.6 Reputational, compliance, contractual or long-term risk.
- 5.7 Loss of revenue from soil disposal.

6. Cultural and Engagement Gaps

- 6.1 Lack of engagement and consideration of Te Ao Māori perspectives and cultural connections to soil and whenua mana.
- 6.2 Absence of cultural considerations in current regulatory and risk assessment frameworks.