



The Proposed NES for Assessing and Managing Contaminants in Soil

A New Era or Business as Usual?
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Outline

- What is the NES for contaminated land?
- Why was it necessary?
- Soil Guideline Values (SGVs) and their impact (too high or low)?
- What will be the effect on current planning provisions?
- What will it cost, and who will pay?
- What did the submissions process show – is there general support or opposition, and in what areas?
- Implementation timeline?
- Key implications for clients, regulators and other stakeholders – what will our advice be?



Need for a nationally consistent approach

- Rationale: lack of consistent, systematic means of identifying, assessing, remediating/managing contamination.
- RMA 2005 amendment assigned contaminated land functions to local authorities - Territorial Authority (TA) response varies widely.
- Many TAs have no rules at all in their district plans about land potentially affected by contaminants.
- Forecast in MfE's *Comprehensive Policy Framework for Managing Contaminated Land in NZ* (2006).



National Environmental Standard

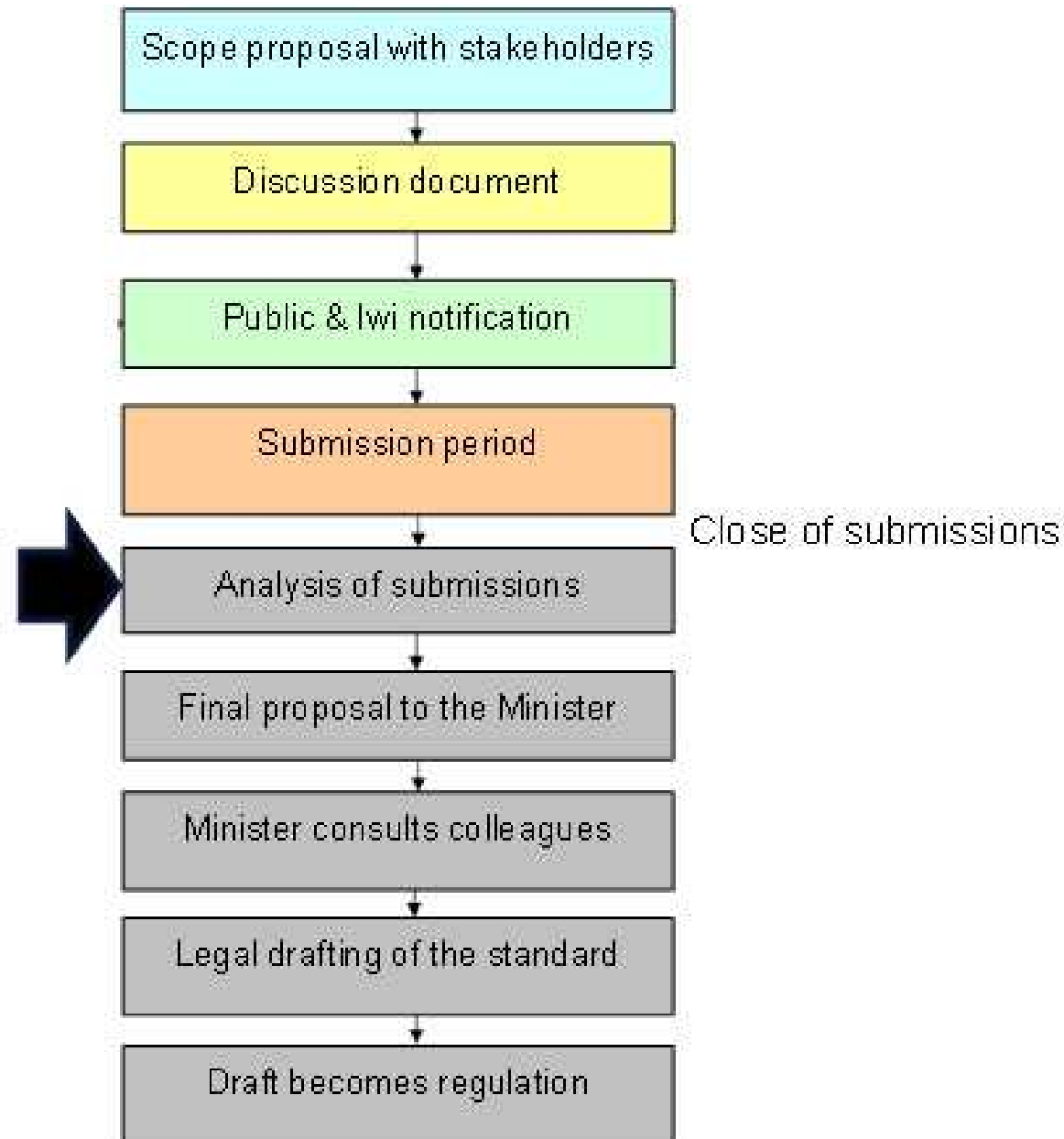
- Statutory method for assessing and managing contaminants in soil at the time of development.
- Objective is to ensure that land affected by contaminants in soil is **appropriately identified** and **assessed** at the time of being **developed** and if necessary remediated, or the contaminants contained, to make the land **safe for human use**.
- The NES prescribes the way local authorities must manage activities and resources.
- Take effect instantly (rather than having to be applied through plan changes – a process that can take some years).



National Environmental Standard (cont.)

- TAs will be responsible for giving effect to, and enforcing the NES.
- How clean is clean? - 10 years of review.
- SGVs – “safe for use” for specified land uses.
- Provides for site specific assessments.
- Plan rules: Permitted, Restricted Discretionary activities to replace existing rules.
- Described in Feb 2010 Discussion document and technical supporting documents (2).





Planning provisions

The proposed NES sets out a mix of allowing (permitting) and controlling (requiring resource consents) for contaminated land, as follows:

- **Permitted activity status** - site investigations to determine the extent and nature of contamination;
- **Permitted activity status** for the use, development or subdivision of land where the risk to human health is acceptable for the intended land use;
- **Restricted discretionary activity status** for any use, development or subdivision of land where contamination is at unacceptable levels for the intended land use; and
- **Restricted discretionary activity status** for any use, development or subdivision of land where there is insufficient information.



Soil Guideline Values (SGVs)

- In general, the proposed NES SGVs are higher than the ACC Tier 1 criteria (Table A1).
- Disparity between proposed NES SGVs and the MfE guidance (e.g. B(a)P the proposed SGV is up to three O.M higher.
- Significant impact on remediation requirements (Victoria Park Playground).
- Changes to the toxicological intake values and exposure factors critical in deriving the SGVs.
- Exposure factors revised include exposure duration, exposure frequency and soil ingestion rate.



Summary of Soil Guideline Values for inorganic substances (mg/kg)

	Arsenic	Boron	Cadmium (pH 5) ^{1,2}	Chromium		Copper	Inorganic lead	Inorganic mercury
				III ³	VI			
Rural residential / lifestyle block 10% produce	20	34,000	5	280,000	560	32,000	730	380
Residential 10% produce	24	34,000	5	280,000	560	32,000	730	380
High-density residential	50	75,000	370	890,000	1,800	60,000	1,600	1,200
Recreation	100	220,000	1,100	NL	5,200	170,000	4,700	3,500
Commercial / industrial outdoor worker	70	400,000	1,600	NL	6,300	290,000	7,000	4,200

1 Default value is for pH 5.

2 Values for Joint Expert Committee on Food Additives tolerable daily intake of 2 µg/kg bw/day.

3 The SGVs_(health) for boron, chromium III, and copper represent levels well in excess of concentrations that would affect the health of plants.
NL = No limit.



Comparison of ACC Tier 1 and NES

Table 1: SGV comparison - LEAD

End Use	ACC Tier 1	Proposed NES	MfE
Residential	300	730	None
High Density Residential	1200	1600	None
Recreation	600	4700	None
Commercial Industrial	1500	7000	None

Table 2: SGV comparison - BaP

End Use	ACC Tier 1	Proposed NES	MfE
Residential	0.27	100	0.27 / 25 / NA ¹
High Density Residential	4	240	None
Recreation	2	440	None
Commercial Industrial	11	300	11 / 25 / NA ¹



Soil Guideline Values (SGV_{health})

“Toxic soil limit too low, warn councils” NZ Herald , 29 May 2010

- A child could die instantly after eating toxic soil from a contaminated site that would now be deemed “safe” under draft Government rules, warn councils who say the safety limits are set too low.

MfE maintains it has undertaken strenuous technical assessment and peer review.

Have gained general acceptance through TAG reviews/feedback.



General implications of NES

- The majority of SGVs result in a less conservative (i.e. higher) acceptance criteria, some lower, e.g. the residential TCDD (dioxin) value.
- NES/SGV methodologies rigorously developed, further changes possible through consultation.
- Any rules in plans relating to soil contamination cannot be more stringent than the NES.
- The NES will apply to any new designation or application for resource consents that is lodged after the NES comes into effect.
- A consenting authority could consider the NES in a section 128 review of consent conditions.



Planning Implications #1

Comparison between current District Plan (Isthmus, Central and Gulf Islands) and the Proposed NES:

- **Objectives are similar** to existing plans i.e. to ensure proper identification and management of contaminated sites.
- **NES relates to human health** only, whereas the Auckland City Plans state that they are designed to protect public health and the environment. (Objection of the ARC).
- **Triggers for consent** – in both NES and District Plan (DP), the need for consent is triggered by either HAIL Activities identified on the site or if the site is tagged by the Regional or Territorial Authority.
- **Site Investigations** – Contamination SIs are a Permitted Activity in the Central and Gulf Islands Plans (Isthmus plan is silent). The NES proposes that Contamination SIs will be a Permitted Activity. Findings must be submitted to the TA within 60 days. The TA then has to put these on the property file and forward a copy to the Regional Authority.



Planning Implications #2

- **Use/Development of a clean site (i.e. contamination levels are less than the SGVs)** – currently a Restricted Discretionary Activity in the DP and will become a Permitted Activity under the Proposed NES, provided the TA audits the SIR and agrees with the conclusions.
- **Use/Development of a contaminated site (i.e. contamination levels are more than the SGVs)** –
 - **Remediation works** are currently a Controlled Activity, but under Proposed NES, they would count as development and be a Restricted Discretionary Activity.
 - **Use/Development** of a contaminated site is currently a Discretionary Activity under the Isthmus Rules and a Restricted Discretionary Activity under the Central and Gulf Island rules. Under the Proposed NES, such works would all be Restricted Discretionary Activities.
 - **A RAP and SVR** would be required under the Proposed NES.



Planning Implications #3

Effect on existing consents – NES only affects new consents, unless s128 review (unclear, but appears to be at TA discretion).

ACC Development Control Bylaw – The Proposed NES is silent about contamination found on a “clean” site during development (bylaw is more stringent than the Proposed NES, so nullified by NES).

In summary, generally no practical impact on existing rules, except that:

- Site investigations will become public knowledge within 60 days.
- The use/development of a contaminated site will move from being a Discretionary Activity to a Restricted Discretionary Activity (already RDA in Central Area Plan).
- Potential loss of the bylaw allowing ACC to take action if contamination is found during works on a “clean” site.
- In general, and importantly, the SGVs are significantly higher than the ACC Tier 1 criteria. Therefore considerable disparity between the NES and ACC Tier 1 (PAH and Pb).

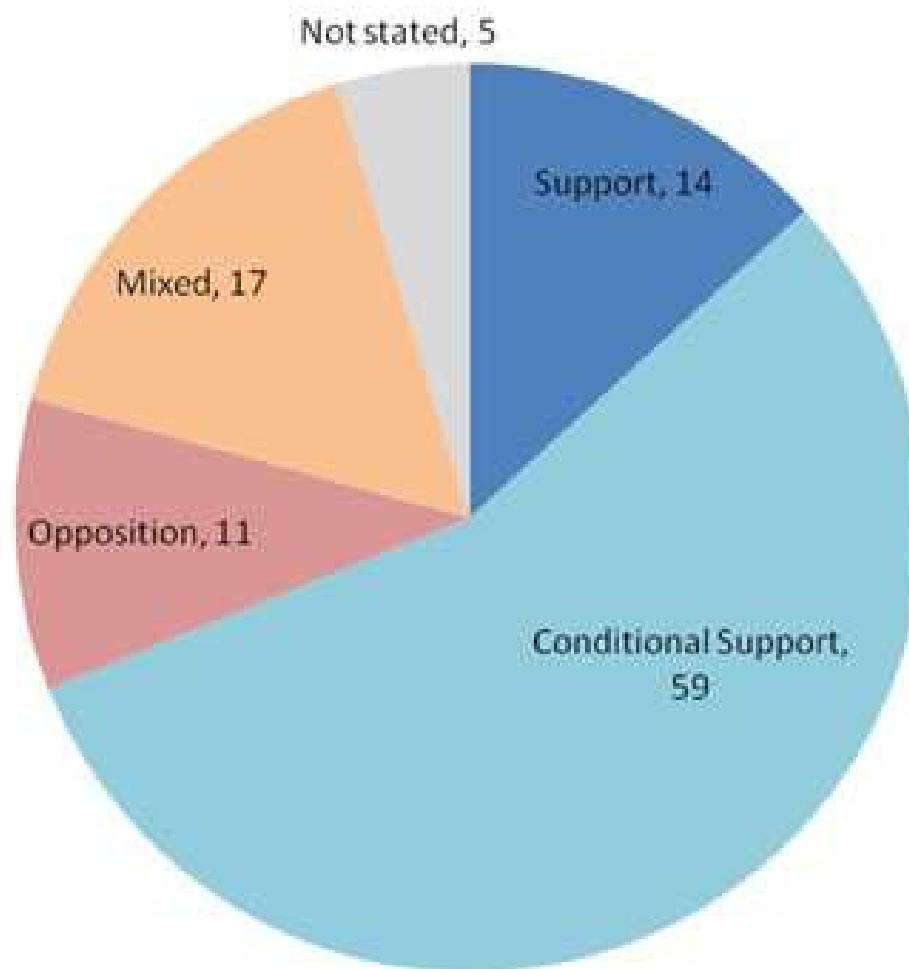


Site specific assessments

- Applies to any land that does not fit the “generic” assumptions in the NES – exposure parameters etc. are adjusted based on site-specific factors.
- E.g. The land use scenarios considered most relevant to ACC childcare facility (and parkland/recreational) are candidates for site-specific assessments.
- A site specific assessment for a Wynyard Quarter terminal using NES methodology derived significantly different values to that of existing MfE criteria.



Submissions received by MfE



Submissions

- Submissions varied widely, but most in support of the concept of an NES.
- ARC submission was that NES focused on chronic health effects – not immediate effects.
- The NES provides for a level of toxicity that may cause immediate death if a child ingested the soil (e.g. Cr III).
- **SGVs are incompatible** with existing conservative MfE guidelines, adopted Council guidelines and many international guidelines or standards.



Submissions (cont.)

- **Site-specific assessments** are provided for, but the proposed NES does not provide sufficient clarity about when councils can legally require these to be done.
- The NES specifically prohibit any council from utilising **guidelines more stringent than the NES**.
- ACC submissions maintain some SGVs exceed relevant guidelines by several orders of magnitude.
- ACC supported a national standard but wanted to be able to set stricter rules for the development of specific sites e.g. childcare centres and playgrounds.
- ARPHS generally supportive.



Potential costs and benefits of the proposed standard¹

	Costs	Benefits
Nationwide impacts	<ul style="list-style-type: none"> Administering additional information \$500,000 (public) 	<ul style="list-style-type: none"> Avoided plan changes \$700,000–\$1.4 million (public) Avoided plan change submission costs \$1 million–\$1.5 million (private) Reduced disputes and post-development remediation \$500,000–\$1 million (public and private)
Nationwide total	\$500,000	\$2.2 million–\$3.9 million
Potential site-specific impacts ²	<ul style="list-style-type: none"> Additional investigation and remediation costs \$0–\$200,000 (private) or Reduced property value un-quantified (private) 	<ul style="list-style-type: none"> Reduced resource consent costs \$0–\$100,000 (public and private) Improved public health un-quantified (public and private) Improved environmental outcomes un-quantified (public)

1 Nature of impacts indicated in brackets: private impacts accrue typically to landowners; public impacts accrue to the wider community.

2 To the extent that these impacts would occur in the future, estimates should be discounted accordingly.



Matters of potential interest for our clients:



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- **Any use or development of contaminated** or possibly contaminated land at a client's site could potentially be subject to this NES, requiring resource consents to be obtained.
- **Regional Councils have different functions and responsibilities** relating to the effects of contaminants on ecosystems and water quality – therefore likely to also need **resource consent from the Regional Council** where there could be quite different and even more stringent rules.
- If any of the **contaminants for which SGVs** have been derived are present, this may have implications for future use and development of that land.



Key implications for clients, regulators and other stakeholders

The proposed NES will ensure:

- District planning controls are appropriate and nationally consistent.
- SGVs are appropriate and applied consistently. Removes the present uncertainty as to which criteria should be applied for the protection of human health.
- Does not apply to assessing and managing the actual or potential adverse effects on other receptors including on-site and off-site ecology, on-site and off-site effects of surface water, groundwater (including human drinking water sources) and amenity values.
- Does not allow for stricter rules or bylaws to be implemented.



Implications for existing contaminated land regime in NZ

Provides national statutory provisions for contaminated land, but **not the silver bullet** that will cure the difficulties with the current contaminated land regime, because:

- While ensuring a consistent TA approach, it does not apply to Regional Councils .
- Relates to soil contamination only, not water.
- Does not sheet home responsibility to the polluter (the owner/developer is responsible).
- Still relies on development of the land to trigger the contaminated land provisions.
- However, submissions generally in support of proposed

