

**Submission on the Proposed National Environmental Standard for Assessing and Managing Contaminants in Soil**

**To:** Ministry for the Environment  
PO Box 10-362  
Wellington 6143

**From:** Marlborough District Council  
15 Seymour Street  
Blenheim 7201

Thank you for the opportunity to submit on the Proposed National Environmental Standard for Assessing and Managing Contaminants in Soil. Please find attached Marlborough District Councils submission.

Please note that this feedback has been prepared by Marlborough District Council staff and has not been considered by our elected representatives

If you have any queries regarding the content of the feedback please contact Colin Gray  
[colin.gray@marlborough.govt.nz](mailto:colin.gray@marlborough.govt.nz)

## Questions

### 1) Have the priority problems been defined correctly?

The Marlborough District Council (MDC) believes that on the whole the priority problems that have been identified have been fully defined. However, the proposed NES should recognise that contaminants in soils also have the potential to have an adverse effect on environmental and ecosystem values both on and offsite.

### 2) Are there other problems you can think of that need to be addressed as a priority?

The MDC believe the obvious problem that has not been addressed is while there is a need to ensure land is safe for human health there is also a requirement for the protection of environmental and ecosystem values. Any policy framework developed should recognise all potential exposure pathways and receptors from contaminated land. For example, a NES focused only on human health will not necessarily assist Regional Council trying to enforce remediation of a contaminated site to manage the adverse environmental impacts of contaminant discharges. This is a real concern given that some of the proposed SGV's are at such high concentrations that there is potential for exceedance of freshwater and sediment guidelines if contaminants migrate offsite e.g. copper sediment and freshwater guidelines. Actually the title for this NES is somewhat misleading and should specify that it is only related to assessing and managing contaminants in soil for the protection of human health.

There is also a concern that the proposed NES may instil a perception that environmental and ecosystem values don't need to be addressed beyond the standards set for human health. This is not a good precedent to set and given Territorial Authorities will be administering the NES, it could result in conflict which Regional Council functions.

It seems that only considering human health values is a backwards step when some previous guidelines that have been used to assess contaminated land have addressed both human health and on-site ecosystems to the extent that it didn't restrict things like plant growth and grazing livestock on a site.

If SGV<sub>(environmental)</sub> aren't addressed in the current NES, is it straightforward updating the NES with these values if they are developed for New Zealand or values are adopted from elsewhere in the future?

### 3) Do you agree with the policy objective?

MDC support the policy objective – although note the lack of recognition of environmental and ecological values.

### 4) Should the objective be limited to ensuring that the land is safe for human use? If not why not?

MDC does not believe the objective should be restricted to only ensuring that the land is safe for human use. This has been discussed above. If by making the NES broader to include environmental and

ecological values, will this will result in significant delays to its implementation. Given that the much of the data underpinning environmental and ecological values is lacking for NZ, than the answer is likely yes.

**5) Do you agree with the preferred option?**

The MDC support the preferred option of developing an NES for addressing issues associated with assessment and managed contaminant in soil. Although given the exclusion of environmental and ecosystem values, non-regulatory national guidelines will still be required by local government and land practitioners.

**6) Is there an alternative option that has not been considered?**

MDC believe all other options have been adequate explored and are not aware of any other alternatives.

**7) Are you aware of any additional costs or benefits of the alternative options?**

No.

**8) Do you see any problems complying with the proposed NES or enforcing it?**

- As discussed in question 11, whether land is subject to an investigation relies on up-to-date and accurate information identifying it as a potentially contaminated site. It has been recognised that for many regions all HAIL sites or other potentially contaminated sites have not been identified, hence sites that perhaps should be investigated may be missed. Maybe a preliminary site investigation should be mandatory to cover these sites?
- As discussed in question 13, there is potentially a lack of expertise within Territorial Authorities to assess the quality of investigation reports and interpret the information.
- As discussed in question 18, a problem is the lack of ability to recover administration costs for permitted activities and the potential for these costs being transferred to the ratepayer.
- There needs to be some clarification of definitions i.e. 'small scale', 'temporary', 'land use change', 'development'. For example, when does 'small scale' become not 'small scale' with regards permitted activity – subsurface investigations?
- A permitted activity status for subsurface investigations does have the possibility of not being enforceable as Territorial Authorities will not necessarily have any knowledge of development of a specific site and if an investigation has taken place. For example, currently in the Marlborough region the number of investigations of potentially contaminated undertaken on a voluntarily basis are very small. These are typically undertaken by landowners who don't want the encumbrance of a 'potentially contaminated site' tag on their property if they are selling the property.

**9) Are the thresholds for determining whether resource consent is required clear and appropriate?**

The thresholds appear to be clear but rely on adequate, accurate and timely information being available to Territorial Authorities.

**10) Is the permitted activity – subsurface investigation requirement to provide a site investigation report appropriate?**

MDC believe that it is appropriate for a site investigation report to be required when a permitted activity – subsurface investigation is undertaken at a site within the conditions outlined in the proposed NES document. However, there should also be a specific conditions including:

- That the Territorial Authority and the Regional Council are informed that the testing is taking place
- Suitability qualified professionals undertake the investigation
- There needs to be clarification of 'scale' of investigation
- The report is submitted to both the Territorial Authority and the Regional Council
- Reporting comply with Contaminated Land Management guidelines

**11) Have we adequately defined the land that should be subject to a condition requiring site investigation?**

The application of the HAIL and local government landuse registers as guides as to what land should be subject to a site investigation are probably most appropriate. However this does require that Council have accurate data in their landuse registers and that the registers are up-to-date i.e. have identified all their HAIL sites in their region. It is apparent that this is not been the case for a number of reasons such as lack of resources within local authorities, no legal duty for landowners to report HAIL sites to local authorities by the landowner. This is something that really requires further driving from central government. Perhaps one way is escalating that identifying and reporting potentially contaminated sites to local government is obligatory as is the case under Part

How about sites that are listed on a Council's landuse register and classified as 'unverified'. Will these need a site investigation or perhaps a preliminary site investigation to review and summarise the past landuse activities to determine whether a full site investigation is justified? Or is the onus on Regional Council to investigate these sites as part of their functions?

Does MfE consider that the HAIL in need of updating?

Possible inclusions:

- Intensive agriculture (cadmium; zinc etc)
- Lead paint from older wooden dwellings say pre-1970's house (lead)
- Bowling greens (arsenic, DDT)
- Poultry and pig farms (arsenic, copper, zinc)

There could possibly be deletion of duplication:

- Sawmills – covered by wood treatment and preservation
- Wool, hide and skin merchants - covered by tannery, fellmongery or hide curing
- Iron and steel works – covered in smelting or refining
- Transport depots - principally relating to things like fuel storage and refuelling areas. Maybe could have a new category that covered fuel storage, refuelling area for hydrocarbons?

Previously our Council (Unitary Authority) and Territorial Authorities received information about potential HAIL sites through administering Dangerous Goods Licences. As this function is now administered by ERMA under HSNO we have lost this ability to capture this critical information on locations of potentially contaminated sites. It is possible for MfE to advocate to ERMA that when Location Test Certificates are issued under HSNO regulations for a hazardous facility, that they be required to inform Council of the location, the types and amounts of hazardous substances that are store on site.

**12) Have we adequately provided for activities that should not be caught by the requirements of this NES?**

Possibly not because as discussed above the proposed NES assumes that all HAIL sites within a region have been identified and we know this not to be the case.

**13) How do you think the NES should ensure the adequacy of site investigation?**

To ensure the adequacy of site investigations, they need to be undertaken by suitability qualified environmental practitioners, using best practice contaminated land investigating and reporting guidelines i.e. CLMG #1 and CLMG #5. As recognised in the proposed NES, there is no accreditation scheme for environmental practitioners in New Zealand, hence it is difficult to have assurance that the environmental practitioners are of suitable standards. In the Marlborough region the standard of competency varies widely and some professional accreditation for this industry group would be beneficial. In the proposed NES there perhaps should be some guidance as to minimum standards for professionals. In addition, MfE could work on developing a professional accreditation scheme for environmental consultants. I seem to recall that the WasteMINZ Contaminated Land Management Sector Group are working on developing some sort of accreditation system for contaminated land management professionals. Maybe something worth following up on.

The second aspect of this question is the assessment and auditing of site investigation reports submitted to local authorities to ensure that the information provided in the report is adequate. This requires a level of expertise within local authorities who audit site investigation reports. It has been suggested in the proposed NES that this might not be always available within some local authorities and has in the past been an issue at the MDC. MDC suggest that the MfE provide support to building capacity in this field nationally through some form of training.

Furthermore, the proposed amendments to the CLMG #5 should be completed ASAP which will clarify issues around sampling regimes etc which will further aid in the assessment of contaminated site investigations by local authorities.

**14) Is the permitted activity status – use, development and subdivision better provided as a controlled activity or another alternative?**

With the exception of utility sites in Marlborough, subdivision does not have permitted activity status in our Regional Management Plans. As such the past and current land use history of a site is considered as

part of the resource consent process to determine any contaminated or potentially contaminated sites. Hence having a permitted activity in the proposed NES with regards to potential contamination for subdivision is unlikely to result in any significant change with regards Council obtaining/identifying this type of information.

#### **15) How should the NES address site-specific assessment for produce consumption?**

The SGV for rural/residential life style blocks is calculated using 10% produce consumption grown on site. It is recognised however that it may not be appropriate to assume that landowners on rural/residential life style blocks consume similar amounts of produce as residential landuse i.e. 10% or less. Furthermore, it appears the produce consumption only considers fruit and vegetable and not eggs, milk and meat. However, as outlined in the proposed NES, sites where landowners consume home grown eggs, poultry or dairy products that also contain lipophilic compounds in soils such as dioxins may be unduly be exposed to these contaminants. MDC believe land owners on rural/residential life style blocks should rightly be expected to have an assumption that their land is suitable for unrestricted land use with regards produce consumption and given these potential limitations this may not be the case.

The MDC suggests that through the NES, it should be mandatory that information is made available on property files and if requested on Land Information Memorandums or Property Information Memorandums that land owners have had their land evaluated against health guidelines that assume 10% produce consumption, and if the land is to be used for activities on the site in the future which will result in consumption of produce in excess of 10% and/or home grown eggs, poultry or dairy products, then measures are put in place to mitigate any risk.

Another option is for MfE to reinstate the rural/residential life style blocks 50% produce consumption SGV's in the proposed NES. This will then provide a conservative and potentially more realistic guideline that can be used by Territorial Authorities for rural/residential life style blocks. Especially because as recognised in the NES document that there is a general dearth of data about amounts of home produce that is currently consumed on rural/residential life style blocks and what trends are with regards produce consumption. Anecdotally there is a belief that home consumption is on the increase. It almost appears to be a backward step excluding the 50% produce consumption SGV's given that they have been mainstream for a range of priority contaminants in a range of national guidelines for some time i.e. Timber Treatment Guidelines, Petroleum Hydrocarbon Guidelines, Gasworks Guidelines, Sheep Dip Guidelines, and also for some individual regional guideline values.

#### **16) How should the NES address naturally occurring elements in soil?**

At the basic level any receptor i.e. a microbe, a plant or human being doesn't differentiate between an ion that is naturally occurring or anthropogenic in origin. So perhaps should be controlled as if they were contaminants under the proposed NES. However for a range of potential contaminants there is evidence that 'naturally occurring' elements in soils are often in forms which are not readily 'bioavailable' e.g. are

within the crystal lattice and therefore wouldn't necessarily pose that same degree of risk as those of anthropogenic origin.

I think given that only arsenic and possible cadmium are of concern and likely only an issue for a restricted number of sites and regions in New Zealand, we could leave it up to discretion of the individual Council to make a call on the risk. It may be in these cases that a site-specific assessment is relevant which may involve some measure of bioavailability i.e. PBET or phytoavailability i.e. EDTA. This could be perhaps be supported by guidance from MfE.

I am interested to know where in New Zealand cadmium exists naturally in soils at concentrations likely to exceed  $SGV_{(health)}$ ?

**17) Have we adequately reflected the range of costs and benefits arising from the proposals for an NES, and who might bear the costs or receive the benefits?**

The proposed NES recognises that it will likely result in an increase in the number of requests for information about potentially contaminated sites, as will the need for Council to review site investigation reports etc. This potentially is going to place an increased burden on Councils like the MDC which only have a 0.4 FTE employed in the contaminated land section and will therefore require recruitment of more experienced staff and/or use of consultants to manage this increased workload. However the reality is though that this is part of our section 31(1)(b)(iia) functions and our organisation should be fully resourced to deal with this potential increased workload.

**18) Are there any costs and benefits we have overlooked?**

How are costs going to be recovered by Council from landowners/developers who make land information requests e.g. site information (soil types, hydrogeology, etc), aerial photos, past site history etc and also assessment of site investigation reports under the proposed permitted activity regime? Not sure how these costs could be passed onto the landowner. Presumably these costs will ultimately have to be put to the general ratepayers which doesn't appear fair given individual landowners are benefiting from the development of site?

## Other comments

- Although it has been recognised in the NES discussion document, it is worth emphasising again that the  $SGV_{(health)}$  values for some of the contaminants are excessively high. For boron and copper especially, concentrations are orders of magnitude higher than those that are tolerable for plant growth, microbial soil functions or some terrestrial species. There are a plethora of studies illustrating this.
- In addition, the  $SGV_{(health)}$  values for cadmium and to a lesser extent lead are also high. While they are unlikely to result in phytotoxicity, I would suggest that for Cd at least, the  $SGV_{(health)}$  value would almost certainly result in Cd accumulation in plants to concentrations that would exceed current food standard values. As an example, my own investigations of Cd uptake in wheat grain in the field showed instances of exceedances of the 0.1 mg/kg FW food standard from soil with Cd concentrations <0.45 mg/kg and with soil pH at around 6.0. This compares to a suggested  $SGV_{(health)}$  value of 13 at pH 6.0 for Rural Residential.
- However, the adoption of a tiered approach for Cd based on soil pH is sensible and use of pH 5.0 as the default is adequate to manage Cd uptake from soils.
- The obvious issue here is that if Territorial Authorities only consider the  $SGV_{(health)}$  thresholds proposed by the NES, then they are potentially allowing subdivision, development or use of land that is clearly not necessarily fit for plant growth, some ecological receptors and may grossly exceed New Zealand food standards.
- Because not all contaminants are listed in the proposed NES and ecological values not included, then the existing potentially confusing mixture of New Zealand industry standards and/or international guidelines are still going to have to be used to determine whether land is contaminated i.e. 'has' or 'reasonably likely you have, significantly adverse effects on the environment. Interestingly the majority of submitters to MfE's 'Working Towards a Comprehensive Policy Framework for Management Contaminated Land in New Zealand' as to whether we should have soil guidelines values for either health, ecological or both indicated that we should develop both.
- I see that the National Environmental Standards Technical Reference Group recognised 14 priority contaminants including benzene and TPH, but no  $SGV$  for these contaminants have been developed. I probably missed it, but why were they dropped? What about other priority contaminants such as nickel and toluene?
- For the proposed NES to be implemented successfully information sharing between Territorial Authorities and Regional Councils is clearly going to be imperative. This includes Territorial Authorities having access to Regional Councils Selected Land Use Registers and sharing site investigation reports from landowners/developers between Territorial Authorities and Regional Councils. This issue should be acknowledged by MfE as potentially a significant problem that will need to be addressed in the proposed NES.