Regulatory Impact Statement

Agency Disclosure Statement

This Regulatory Impact Statement has been prepared by the Ministry for the Environment. It provides an analysis of options to better target risks to human health in the *Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011* (the NESCS).

The NESCS has only been in place for a short period of time, having come into effect on 1 January 2012. An interim review of the NESCS was undertaken in response to reports of implementation challenges. The interim review identified issues with how the NESCS was working in practice, indicating problems with the policy settings within the NESCS. However, the original objective of the policy intervention still stands - Ensuring 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.

During development of the NESCS alternative options were considered for achieving the objective, including non-regulatory guidance or a national policy statement. However, an NES was assessed as being the best option for achieving the objectives. Based on this, other options such as repealing or replacing the NES were not assessed during the review of the NESCS. The NESCS has not been in place long enough to assess whether it is delivering on the original objectives. Further, repealing or replacing the NESCS at this point, after a short period of implementation, would create significant confusion and costs for councils, landowners and contaminated land practitioners. Therefore, the options considered were:

- continuing with the status quo
- non-regulatory guidance on how to implement the NESCS and HAIL
- amendments to the NESCS and HAIL.

This Regulatory Impact Statement is to support consultation on amendments to the NESCS. The types of costs and benefits that would arise from amending the National Environmental Standard for Contaminants in Soil (NESCS) can be readily identified. However, there is some uncertainty about the magnitude of these impacts and many of the costs and benefits have not been fully quantified at this stage. Much of the evidence collated during the review was qualitative, as information is currently not recorded by councils in a quantitative or reportable manner. Feedback on the impacts of proposals will be sought through consultation. Following consultation, an updated Regulatory Impact Statement will be produced, accompanied by a cost benefit analysis (CBA) and a section 32 report.

Katherine Wilson, Director, Resource Management Directorate

[*Signature of person*] [*Date*]

Adequacy statement

The Ministry for the Environment's Regulatory Impact Analysis Review Panel has reviewed the attached Regulatory Impact Statement (RIS) prepared by the Ministry for the Environment. They consider that the RIS meets the quality assessment criteria.

The RIS includes relevant information commensurate with the size and complexity of the problem and the magnitude of the impacts and risks of the policy options. The options considered are in line with the scope of the review. The analysis is sufficient to inform initial Government decisions on the proposals in this paper. We expect that any final policy decisions following consultation would be supported by further analysis of the impacts of the options.

The review panel also informally reviewed the attached consultation document and summary document. The panel consider that having two separate documents focused on different audiences (technical practitioners and other interested stakeholders) will elicit helpful information to further inform Government decisions on the issue.

Background

Most of the decision-making under the Resource Management Act 1991 (RMA) is done by local authorities – territorial authorities and regional councils – under district plans and regional plans. District plans and regional plans contain rules for activities that may impact on the environment. New activities may require consent from the council (resource consent) and be subject to prescribed technical standards, methods or other requirements to address environmental concerns. These rules can, and do, vary from plan to plan.

The RMA provides that national direction is able to be given on specific issues using instruments such as a national environmental standard (NES) or a national policy statement (NPS). An NES can permit activities or development and they can also prohibit or require resource consent for activities in order to manage impacts and/or protect the environment.

The use of an NES is appropriate for activities that could benefit from national consistency in resource management planning rules. A set of national rules for a particular activity sits above district plans and regional plans and therefore reduces local variation in rules, costs for councils, and costs and uncertainty for resource consent applicants. Local authorities must observe national environmental standards. Matters not covered by an NES are still regulated by district plans or regional plans.

Status quo

The past use of chemicals (hazardous substances) in industry, agriculture and horticulture has left a legacy of soil contamination in New Zealand. Development or use of contaminated land can increase the risk of exposing people to contaminants in soil. This risk is managed in New Zealand under the Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil

to Protect Human Health) Regulations 2011 (NESCS). It is a national environmental standard under the Resource Management Act 1991. The NESCS came into effect on 1 January 2012 and provides controls for the development and use of land to protect human health. The objective was to:

- provide a nationally consistent set of planning controls and soil contaminant values
- ensure that land affected by contaminants in soil is appropriately identified and assessed at the time of being developed and, if necessary, the land is remediated or exposure to contaminants managed to make the land safe for human use.

Alternative approaches to an NES were considered during the development of the NESCS. A Regulatory Impact Statement produced in 2010 assessed the option of an NES against amendments to the Resource Management Act, a National Policy Statement or a Minister directed plan change. The analysis concluded that other approaches were unlikely to be effective at achieving the objectives, and would be less efficient.

The NESCS applies when a person wants to undertake an activity (eg disturbing the soil, subdividing the land, or removing a fuel storage system) on land that has the potential for soil contamination. More information on the activities covered by the NESCS is provided in Appendix 1. The NESCS was intended to provide a comprehensive framework for the investigation and management of potentially contaminated sites to protect human health. The framework is comprised of four parts.

Figure 1: The four parts of the NESCS framework

The National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health (NESCS)

1. **Hazardous Activities and Industries List (HAIL)**	HAIL identifies industries that have historically been associated with hazardous substances. The NESCS targets sites that pose a potential risk by applying only to land on which an activity or industry on the HAIL is currently taking place, has taken place, or is more likely than not to have taken place.
2. **Nationwide set of planning controls**	The NESCS sets out rules that apply when a person wants to undertake an activity (eg, disturbing soil, subdividing land, or removing a fuel storage system) on land that has the potential for soil contamination.
3. **Requirements for undertaking and assessing site investigations and reports**	A consistent approach to investigating and reporting on contaminated sites is required.
4. **Nationwide set of soil contamination standards for 12 priority contaminants**	A nationwide set of soil contaminant standards for 12 priority contaminants and a method for developing standards for other contaminants was developed to ensure the same level of health protection for people around the country. Soil contaminant standards set a level at which contamination is considered acceptable.

Problem

Following introduction of the NESCS, feedback from local authorities and other stakeholders indicated there were implementation difficulties and inconsistencies.

The Ministry for the Environment conducted an interim review of the NESCS after a short period of implementation, to understand the extent to which it is working as intended. Data gathering was undertaken from July to December 2014. The interim review determined that overall the NESCS has decreased the likelihood that sites will be developed then later found to pose an unacceptable risk. Concern that sites were being missed was a major driver for developing the NESCS, and as such the NESCS is largely achieving its original objectives. However, there are several areas where implementation of the NESCS is creating inefficiencies, resulting in low-risk sites and low-risk activities being required to comply with the NESCS:

- There is considerable variation in how the HAIL is being applied by councils across the country. This variation impacts landowners by creating costs and delays at the time of development and is expected to be magnified as more regional councils identify HAIL sites in their region and the number of HAIL sites increases.
- A substantial proportion of sites identified as HAIL are found to be below the soil contaminant standards after testing. This finding means that a considerable percentage of land captured by the NESCS is later found to not pose a risk to human health.
- The NESCS is requiring landowners to obtain resource consent in circumstances where the risk to human health could be managed in other ways. For example, landowners may be required to remediate their property in circumstances where other management options are available – some of which may be more cost effective for the landowner.
- There is variation in how the NESCS planning controls are being applied by councils and practitioners across the country. This is creating differences between districts in terms of what activities require NESCS resource consent. In particular, determining whether an activity is permitted can be a cumbersome process for some landowners. This delays projects, increases costs and inefficiencies for landowners, and sometimes results in consents being obtained when not required by the NESCS.

A summary of the impacts of these problems is provided below.

There is considerable variation in how the HAIL is being applied by councils across the country, and a substantial proportion of sites identified as HAIL are found to be below the soil contaminant standards after testing

The area of HAIL land (i.e. potentially contaminated land) in New Zealand is extensive. Significantly more land than originally anticipated is being identified as HAIL and is subject to the provisions of the NESCS. The 2010 Cost Benefit Analysis (CBA) estimated that 193ha of land would be affected by the NESCS over a 20 year period. However, it was recognised within the CBA that there was a high degree of uncertainty about the magnitude of impacts.

During the interim review, councils were asked about the number of HAIL sites identified in their district.

Table 1: Number of identified HAIL sites by region as reported in October 2014

Regional Council	Number of HAIL sites
Otago	618
Tasman	1133
Bay of Plenty	1547
Taranaki	1836
Wellington	2087
Canterbury	5500
Waikato	6250

Applying some different assumptions and using information from the review, we have now estimated between 6,000ha – 20,000ha of land would be identified as HAIL over the next 20 years[1].

Before the HAIL was incorporated into the NESCS it was unclear how often activities on the HAIL would result in soil contamination to levels that posed a risk to health. Identifying potentially contaminated sites based on past use will always mean that following testing a proportion of properties will be found to be free from contaminants. However, there is some evidence that a significant proportion of HAIL sites investigated for the purposes of the NESCS are found to be below guideline values[2]. For example, more than 60 per cent of the site investigations provided to Christchurch City Council during the six-month monitoring period found site contamination levels to be below guideline values. Stakeholders from around the country consistently report similar results. This suggests that the HAIL is casting a 'wide-net', covering land which is unlikely to pose a risk.

The NESCS is requiring landowners to obtain resource consent in circumstances where the risk to human health could be managed in other ways

(i) Resource consent is required for activities where the risks can be managed in other ways

Some of the activities which require resource consent do not have a clear link to human health protection and are imposing costs.

The NESCS currently requires resource consent be obtained for sites which are found to have contamination at concentrations below the guideline values to protect human health. This was originally included in the NESCS to allow councils to

[1] There is still a high level of uncertainty about the estimated total number of HAIL sites due to partial datasets and information not being consistently recorded. We have sought to minimise the risk by applying low, medium and high scenarios to estimate the number of HAIL sites to 2031.

[2] Guideline values set at a level where the risk from contaminants is considered to be acceptable. If a site is found to be below guideline values, it is not considered to pose a risk. If it exceeds the guideline values, the risk is considered to be unacceptable and something must be done to manage the risks.

thoroughly review site investigations, to ensure site investigations are of sufficient quality. Feedback during the review was that the quality of site investigations is highly variable, indicating that requiring resource consent is not acting as an effective mechanism for controlling the quality of site investigations. Consents for sites below guideline values make up more than 30% of all consents issued under the NESCS – these consents pose costs for landowners and are not directly resulting in improved outcomes for human health.

The NESCS also currently applies to network utility operators when they are installing or maintaining infrastructure. The intent of the NESCS is to protect risks to human health. However, the NESCS is not intended to cover risks to workers undertaking soil disturbance, as they are covered by health and safety regulations. Installation and maintenance of network infrastructure, such as broadband cables or waste water systems, often triggers the NESCS due to the volume of soil disturbance. The risks associated with these types of soil disturbance are generally low from an NESCS perspective because:

- soil is usually replaced under a sealed surface
- the effects are often consistent (so can be managed in a consistent manner)
- the operators are experienced in appropriately managing risks
- the main people exposed to the soil are workers and as a result are addressed by Health & Safety regulations.

Obtaining resource consent for infrastructure projects can cause significant delays on individual projects. Some network utility operators have been successful in obtaining global resource consents, which enable them to carry out activities across a district without needing to obtain individual consents for each activity. However, councils are not consistently granting global consents, and even if an operator was able to obtain global consents in all districts, they would need to obtain a minimum of 67 consents (one in each district) at an estimated cost of more than $1.3 million per operator. This cost would be duplicated across all operators, despite the risks being reasonably low.

(ii) Remediation required where other management options are available

Risks to human health from contamination in soil can be managed through a variety of means, which can broadly be split into remediation (removal of contaminants) or on-site management (preventing exposure to contaminants). The NESCS does not dictate how a site should be managed, to provide flexibility for the variable characteristics of contaminated sites. Councils have discretion to determine whether a proposal will adequately manage the risks to human health.

The interim review indicated that the majority of landowners are able to choose how they will manage their site, and many are opting for on-site management of contaminants. However, some landowners are being required to carry out costly remediation, due to expectations amongst some council staff and contaminated land practitioners that contaminated soil will be removed during development. Costs for disposing of contaminated soil can be high – for example it can cost $40,000–50,000 to dispose of the contaminated topsoil layer from a 700 square metre residential site. The costs are due to a number of factors including the distance to fill sites

(particularly in remote regions), and a lack of appropriate fill sites (many regions do not have any managed fill, so the only option is landfill). For these landowners, the costs of managing risks can be significant, and likely outweigh the benefits in circumstances where the soil contaminant standards are not significantly exceeded. The costs are particularly significant for residential landowners who are less able to absorb the costs. Marginal cost is more substantial than on a commercial development.

The costs of compliance are also increased because the current policy settings require that 100 percent of the contaminants present in soil be taken into account when determining whether a site poses a risk. However, in reality, only a proportion of the contaminant will be able to be absorbed into the body – the rest is bound to the soil in a way that the body cannot absorb it, meaning it will pass through without harming the person. Requiring all of the contamination to be considered is a conservative approach, and is resulting in sites being remediated where the risks are low.

There is variation in the application of the NESCS planning controls that is causing delays and increasing costs and inefficiencies

One of the original objectives of the NESCS was to provide a nationally consistent set of planning controls and soil contaminant standards. The interim review has identified considerable variability in how the requirements of the NESCS are applied. In particular, the following elements of the NESCS are affected by inconsistency:

- *Determining whether a proposed volume of soil disturbance is permitted or requires resource consent*. This is driven by varied interpretation of key terms. Different interpretations result in considerable differences in the volume which can be carried out without needing to obtain consent.
- *The required area of investigation for soil disturbance, fuel tank removal/replacement, subdivision*. The NESCS currently does not stipulate the area for investigation – some landowners are investigating only in the area of their proposed activity, whereas others are investigating the whole area where a HAIL activity occurred. The area investigated has cost implications – the larger the area, the more it will cost a landowner.
- *The types of effects which are controlled through the resource consent process.* A wide range of consent conditions are being placed on NESCS consents, some of which have considerable compliance costs, and may not be linked to the level of risk on a site. This is a particular issue for discretionary consents for soil disturbance and fuel tank removals, as councils are unclear on the effects that need to be controlled, and so may place conditions which cover off a wide range of possible effects in order to limit their liability.

Variation in how the NESCS is being interpreted and applied is placing costs on landowners and councils. A significant number of person-hours are involved for councils and land owners to understand and comply with the requirements of the NESCS. Where councils are unsure on how to interpret or apply the NESCS they may seek technical or legal advice. This creates increased workloads and costs associated with processing NESCS resource consents, which are duplicated across councils. For landowners, there are differences between districts in which activities

need resource consent. In particular, determining whether a proposal is permitted can be a cumbersome process for some landowners. This delays projects, increases costs, and sometimes results in consents being obtained when not required by the NESCS.

Objectives

The original policy intent of the NESCS was 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 overall objective of the review is to deliver more effectively and efficiently on this intent by more closely aligning the controls with risk. To enable this, the review seeks to achieve four outcomes:

- Require a risk-based assessment when deciding whether the NESCS applies to a site.
- Removes resource consent requirements for low-risk activities
- Increase certainty of the consenting process and target controls more closely to effects.
- Provide options for site-specific management that are appropriate for the risk.

To achieve the objectives, the options were assessed against the following criteria:

A. Provides an appropriate level of protection to human health
B. Costs of compliance are reasonable
C. Creates administrative efficiency
D. Provides national consistency and certainty of process for landowner and councils

Options and impact analysis

Scope of options considered

The NESCS has only been in place for a short period of time, having come into effect on 1 January 2012. An interim review of the NESCS was undertaken in response to reports of implementation challenges. The interim review identified issues with how the NESCS was working in practice, indicating problems with the policy settings within the NESCS. However, the original objective of the policy intervention - *Ensuring 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* – still stands.

During development of the NESCS, alternative options were considered, such as non-regulatory guidance, or a national policy statement. However, an NES was assessed as being the best option for achieving the objectives. Based on the conclusions of the original RIS, undertaken during the development of the NESCS, other options such as repealing or replacing the NES were not assessed during the review of the NESCS. Further, repealing or replacing the NESCS at this point after a short period of implementation would create significant confusion and costs for councils, landowners and contaminated land practitioners. Therefore, the options considered were:

- continuing with the status quo
- non-regulatory guidance on how to implement the NESCS and HAIL
- amendments to the NESCS and HAIL.

Options analysis

Policy options	Criteria				Summary of analysis
	A	B	C	D	
Option 1: *Status quo.* A summary of the status quo is described in the Problem section.	×	×	×	×	The status quo is resulting in inefficiencies in achieving the objectives of the NESCS including low risks sites being required to comply with the regulations, and landowners spending large sums of money addressing relatively low levels of contamination.
Option 2: *Non-regulatory guidance to support implement-ation of the NESCS*	×	✓	-	×	Guidance could be descriptive and would be easily updated. However, this option was discounted for the following reasons: One of the main objective is to provide planning controls which are nationally consistent so that landowners have certainty of their obligations under the NESCS Guidance would be voluntary so may not be implemented by all councils – many will seek their own legal advice on how to proceed. The NESCS is currently supported by a non-regulatory Users' Guide. A considerable proportion of councils spoken to during the interim review. Therefore guidance alone is unlikely to achieve national consistency. Another key objective is that land and activities only require investigation and resource consent if there is a genuine and likely risk to human health. Regulatory requirements would remain unchanged if non-regulatory guidance was the only intervention. As such the NESCS would continue to apply to activities and land which are unlikely to pose a risk. Guidance alone cannot redress imbalances in the regulatory requirements relative to risk.
Option 3: *Amend the policy settings of the NESCS and HAIL to better target risk*	✓	✓	✓	✓	The interim review revealed a number of areas where the policy settings of the NESCS are impacting on the ability of the tool to achieve it's original objectives. Changes to these settings are expected to reduce compliance costs and better target risks to health. There will be some costs involved in amending the NESCS. These costs will largely be borne by central government and local authorities, and will largely be associated with the process of changing the regulation and some additional resource requirements for councils. More detail on the costs and benefits of

					amending the NESCS is provided below.

Elements of the proposed package of amendments

The preferred option is to combine Option 2 and Option 3: amending the current NESCS and HAIL, supported by comprehensive non-regulatory guidance. This option will best address the updated objectives for the NESCS – achieving national consistency in the identification, investigation and management of potentially contaminated sites in a manner which is appropriate for the level of risk. Changes are proposed to the current policy settings to deliver on these objectives.

Development of proposed amendments

Following the interim review of the current NESCS, a working group was established with representatives from territorial councils, a unitary council, a regional council, and contaminated land practitioners. Options for technical amendments to the policy settings of the NESCS were developed and tested with this group. The amendments were assessed against the criteria set out above, and tested for their potential to have unintended outcomes.

The below section sets out the proposed amendments to the policy settings of the NESCS. The proposals are intended to be progressed as a package, to address the four elements of the problem summarised in the Status Quo section. Analysis of the options is summarised below, including anticipated costs and benefits. Proposals are grouped by the problem they are intended to address:

- The NESCS is applying to a large area of land, of which a considerable percentage is later found to not pose a risk. The proposals are intended to better target land which poses a risk to health.
- The NESCS is being inconsistently implemented around the country, creating costs and delays at the time of landowners obtaining NESCS consent. Amendments are proposed increase consistency in interpretation and application of the NESCS.
- Resource consent is required for activities where the risks can be managed in other ways, increasing the regulatory burden with limited benefits. Changes are proposed to exclude activities where the risks are low.
- For those landowners who are affected by the NESCS, the costs of complying with the regulation can be substantial. For this sub-section of the proposed amendments options are presented. The preferred option depends on which criteria is considered to be most important.

Better target land which poses a risk

The NESCS applies to land where an activity on the HAIL occurred, or is more likely than not to have occurred. The following amendments are intended to ensure that the NESCS will target land that is reasonably likely to pose a risk, reducing the number of sites identified which are later found to not pose a risk:

Amendment	Anticipated impacts
Remove ambiguous wording and clarify that the NESCS only applies to HAIL categories which pose a risk to human health.	Benefits: Improved clarity on whether a site should be considered HAIL, reducing costs and delays for landowners at time of obtaining consent, and avoiding properties being listed when there is no risk. NESCS will no longer apply to sites which only pose an environmental risk, ensuring it is targeted to achieving the policy intent of protecting human health. Costs: Likely to require councils to revise and update their databases. However, should reduce some costs for councils, as many are currently seeking legal advice on how to interpret and apply terms. It's unclear what the overall cost implications might be – feedback will be sought through consultation.
Provision of guidance on how to identify HAIL sites, including the characteristics of industries named in the HAIL list, emphasising a risk based approach to identifying HAIL sites	Benefits: Clarify the types of evidence needed before a site is considered to be HAIL, avoiding landowners needing to comply with the NESCS on the basis of very limited evidence of potential contamination. Councils would be encouraged to consider the duration and intensity of an activity or industry, and the periods of time that hazardous substances have historically been used, rather than assuming hazardous substances were used at all sites where HAIL activities and industries occur. Expected to reduce the number of sites identified, but difficult to quantify. Risks: Guidance will be non-regulatory, so councils will not be required to follow it. However, council staff have asked for guidance on these issues, so would likely follow the recommendations If guidance is not informed by evidence, there is a risk that sites that pose a risk will not be identified. To mitigate this risk and avoid a long lead-in period before guidance can be provided, guidance may be issued in sections as evidence is collated on particular categories.
Addition of a test within the NESCS to prevent the NESCS applying to sites where, even if a HAIL activity occurred, it is highly unlikely to have resulted in contamination which poses a risk to human health	Benefits: Allow assessments to be made about the likelihood of risk, enabling low risk proposals to be permitted, whilst ensuring sites that do pose a potential risk are targeted by the NESCS at the time of development. Risks: Assessments will be carried out by contaminated land practitioners in some instances. The quality of practitioners is highly varied, and therefore the quality of their assessment of risk will be highly varied. To mitigate this risk, clear criteria and guidance will need to be developed to aid councils in determining whether a practitioner's assessment that a proposal is low risk is justified.

Exclude activities where the risks are low

Some of the activities which require resource consent do not have a clear link to human health protection and are imposing costs. The following amendments are proposed:

Amendment	Anticipated impacts

Remove resource consent requirements for sites below guideline values, except for soil disposal.	Benefits: Reduce the number of NESCS consents by up to approximately 40%. Control is retained over disposal of soil, to ensure incidental HAIL sites are not created. Costs: Some additional costs and people-hours for councils to review site investigations, which will no longer be able to be reclaimed through resource consent fees. This cost has been mitigated by recent updates to guidelines for assessing site investigations, to enable more efficient reviews by councils.
Permit soil disturbance by network utility operators.	Benefits: Reduce compliance costs and time for installing and maintaining infrastructure. Benefits would accrue to network utility operators and general public, as a result of timely provision of infrastructure. Potential costs: Potential for environmental harm by reducing regulatory oversight. This risk has been mitigated through placement of conditions and limitations on the types of activities which can be undertaken.

Increase consistency of interpretation and application

Inconsistent interpretation and application affects several elements of the NESCS. The below amendments are proposed:

Amendment	Anticipated impacts
Provide clear definitions for key terms which establish whether a volume of soil disturbance is permitted	Benefits: Improved clarity on whether proposals for soil disturbance are permitted, reducing costs and delays for landowners at time of obtaining consent. Will also reduce costs for councils, as many are currently seeking legal advice on how to interpret and apply terms.
Remove reference to ‘per year’ in relation to soil disposal	Benefits: Reduce delays and confusion resulting from current reference to ‘per year’. Costs: There is a risk that removing the reference to ‘per year’ will create a perverse incentive for people to stagger soil disposal in order to avoid resource consent requirements. However, disposed soil is still required to go to an appropriate facility, so the impacts of staggered disposal should be negligible.
Clarify the effects councils can control when granting resource consent for fuel tank removals	Benefits: incentivise replacement of old fuel tanks, by ensuring regulatory requirements are targeted to risks associated with removing fuel tanks. Potential costs: Risk that limiting discretion will remove council ability to control adverse effects. Feedback will be sought through consultation on whether controls are sufficient to address potential adverse effects.
Clarify the effects councils can control when granting resource consent for soil disturbance	Benefits: Ensure the regulatory requirements are targeted to risks associated with soil disturbance, reducing compliance costs. Potential costs: Risk that limiting discretion will remove council ability to control adverse effects. Feedback will be sought through consultation on whether controls are sufficient to address potential adverse effects.
Clarify the area for investigation	Benefits: Will ensure that the costs of investigating sites

and management at time of subdivision	are appropriate to achieve the policy intent of the NESCS. Costs: Reduces information flows on the contamination profiles of previously developed sites. However, it was not the intent of the NESCS to provide this information.

Address costs of compliance for residential property owners

The major sources of NESCS compliance costs for residential property owners are site investigations and remediation of contaminated sites.

To address costs of site investigations, guidelines for undertaking and reporting on site investigations were recently updated and consulted on[3]. The objective of the updates was to clarify the requirements for site investigations, to ensure the level of investigation is appropriate for the level of risk on a site, avoiding over-investigation of low risk sites. Based on feedback received from that consultation, the Ministry is considering introducing a requirement into the guidelines for suitably qualified and experienced practitioners (SQEPs) to use a standardised certifying statement in their reports to provide users of reports clarity and confidence in regards to the report's conclusions and its compliance the NESCS requirements. This could result in reduced costs and delays in the consenting process, as it will reduce the perceived need to peer review a SQEPs report. Feedback on the likely scale of reduced costs and delays will be sought through consultation. It is intended that updated guidelines will be released alongside consultation. We then intend the finalised guidelines to be gazetted by the Minister for the Environment in early 2017.

To reduce the number of sites which require remediation, the Ministry is assessing the feasibility of allowing landowners to take into account the proportion of arsenic which is able to be absorbed by the body (known as bioavailability testing). This could result in 10%-40% of sites contaminated with arsenic[4] no longer being required to remediate, as they would be assessed as posing no risk. It is not yet clear what the costs of testing for bioavailability would be. Feedback will be sought on an option to introduce bioavailability testing for both arsenic and lead through consultation. Feedback on the likely costs will also be sought to determine whether the benefits outweigh the costs.

Further options for addressing compliance costs

A decision is sought on options which were developed to allow owners of residential and rural residential (lifestyle blocks and farm houses) properties to opt for a standardised site management plan (SMP)[5], rather than needing to test the soil or remediate their site. The objective of this option was to minimise costs of investigating and managing sites, and give landowners a straight forward way to meet the requirements of the NESCS.

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[3] These guidelines are incorporated by reference into the NESCS, and therefore have legal effect.

[4] Potentially up to 40% of all sites.

[5] A site management plan sets out restrictions on how a site can be used, in order to prevent or reduce exposure to contaminants in soil. For example, it may prevent certain areas of the site from being used

Expert advice was obtained to develop a standard site management plan. The proposed standard SMP, named 'template ongoing site management plan', is attached in Appendix 2.

Two options for incorporating the standardised SMP were developed, the main features of which are summarised below:

- Option 1 - A standard SMP for residential and rural residential properties on HAIL A10 sites[6]. Landowners do not need to test the soil.
- Option 2 – A standard SMP for site with low levels of contamination. Landowners obtain a Detailed Site Investigation (i.e. test the soil) – the findings determine what options the landowner has:
    - Contamination is below the guideline values – no action is required.
    - Contamination slightly exceeds the guideline values – can opt for standard SMP
    - Contamination significantly exceeds the guideline values – normal NESCS process.

An alternative non-regulatory option was also developed to deliver on the objectives – provision of guidance on low cost options for managing risks. Helping owners become better informed on the range of options for their property will reduce their reliance on contaminated land practitioners, who are sometimes overly conservative, ensuring landowners get fuller advice on the options for their site. Summary analysis of the options is presented below:

[6] HAIL A10 sites are sites where persistent pesticide was used including former orchards and market gardens. This is the most common HAIL category, and is often characterised by wide-spread but low concentrations of contaminants.

Option	*Anticipated impacts*		*Risks*	
1) A standard SMP for broad-acre A10 sites.	Option for 10-20% of residential properties at time of consent. Compliance costs estimated to be $2500 - $9000 per property*.	Uptake rates are likely to be low. The review found most owners prefer to address contamination, rather than have ongoing encumbrances on their property.	Actual contamination concentrations will not be known. Site may be heavily contaminated. Our evidence to date on orchard sites: 23% of DSIs found arsenic concentrations more than twice the SCS. 12% found lead concentrations more than twice the SCS.	It is not possible to quantify how much protection the standard SMP will provide to property occupiers, as contaminated soil will still be exposed. People could suffer adverse effects even if they follow the site management plan Compliance with site management plans will be almost entirely self-regulated, so compliance rates expected to be low. Difficult to future proof – future occupants may not be aware of the SMP. Particular issue for rental properties as no current mechanism exists to inform tenants
2) Standard SMP for site with low levels of contamination	Option for 20-40% of residential properties at time of consent. Compliance costs likely to be $6000 - $10,000*.		SMP will not be targeted to areas of greatest risk within a specific site.	
3) Guidance on low cost options for managing risks in a residential context.	Expected to benefit 60-70% of residential landowners. Could result in cost savings of $5000-$100,000 at the time of obtaining consent – compliance costs will depend on the method chosen, so will vary between sites.		Non-regulatory so no legal weight. Councils will not be required to accept proposals from landowners. However, anecdotal evidence suggests councils largely accept applicant's proposals.	

* Status quo compliance costs can vary from $2000 to $50,000 plus, depending on the chosen method for management/remediation, and whether a DSI is undertaken

On this basis, the three options were assessed against the criteria.

Option	Provides an appropriate level of protection to human health	Costs of compliance are reasonable	Creates administrative efficiency	Provides national consistency and certainty of process for landowner and councils
1) Standard SMP for broad-acre A10 sites.	✗✗	✓	✓	✓
2) Standard SMP for site with low levels of contamination	✗	✓	✓	✓
3) Guidance on low cost options for managing risks in a residential context.	✓	✓	✓	✗

If the most important criteria is considered to be national consistency and certainty of process for landowners, then the preferred option would be option 2. However, if importance is placed on protection of health, then option 3 would be preferred. Further, whilst option 3 does not directly achieve certainty for landowners as guidance would be non-regulatory, evidence during the review indicated that councils largely accept landowner proposals for managing sites. It is anticipated that they would accept proposals that align with national guidance.

Feedback will be sought on option 2 and 3 through consultation.

Overall costs and benefits of proposed amendments

As a package, the proposed amendments are anticipated to achieve all of the criteria:

- Provides an appropriate level of protection to human health
- Costs of compliance are reasonable
- Creates administrative efficiency
- Provides national consistency and certainty of process for landowner and councils

However, it is currently difficult to estimate what the cumulative impact of these amendments will be. Feedback on the impacts of proposals will be sought through consultation. Further information on the process for estimating the costs and benefits of proposals is provided in the consultation section below.

Implementation and review

National Environmental Standards are regulations under the RMA. Should final approval be given for amendments to the regulations, they will become effective within 28 days after being gazetted. Local authorities implement and enforce the NES, which operates in the same way as rules in plans. The enforcement provisions of the RMA apply.

It is proposed that guidance material will be produced for local authorities to assist implementation. In addition to updates to the existing Users Guide on the regulations, it's intended that information be provided on identifying and managing contaminated sites. Information for landowners is also proposed, to improve their understanding of the requirements, and ways they can manage their exposure to contaminants.

Under section 24(f) of the RMA, the Minister for the Environment must carry our monitoring of the effect and implementation of the RMA, including any regulations in force under it. Should amendments to the NESCS and HAIL be made, their effectiveness is proposed to be reviewed within 5 years of coming into effect, as part of an overall review of the NESCS framework. In order to assess the efficacy of amendments to the NESCS, the review would likely include:

- the activities for which resource consent is required
- whether contaminated sites are being remediated or contaminants are being managed on site
- how the Hazardous Activities and Industries List (HAIL) framework is working

Consultation

Consultation during development of proposals

A working group was established with representatives from territorial councils, a unitary council, a regional council, and contaminated land practitioners to test the policy options. The working group were generally supportive of the proposed changes, but emphasised the importance of quality guidance to support implementation and raised questions with the sustainability of SMPs over the longer term with changes in property ownership. To partially address these concerns, the standardised SMP option will require landowners to obtain resource consent, as a mechanism for recording the SMP.

Ministry of Health has reviewed the proposals. Concerns were raised with the level of protection provided by standardised site management plans. They emphasised the importance of ensuring the community is aware of the risks they are exposed to, and that regional councils should continue to identify potential HAIL sites in their regions. Non-regulatory guidance is proposed to be produced on both these issues to support implementation of an amended NESCS.

Public consultation

In accordance with the statutory process for amending a national environmental standard, the Ministry for the Environment (MfE) will carry out public consultation on

the proposed amendments for a period of eight weeks. A consultation document has been prepared, and seeks feedback on:

- Whether the proposed conditions and controls placed on activities are appropriate
- The likely costs and benefits of the standards to councils and landowners.
- Any risks associated with the proposals

Following consultation, a summary of submissions will be prepared and provided to the Minister for the Environment, alongside advice on proposals.

A lot of the evidence obtained during the interim review of the NESCS was qualitative, due to partial datasets and information not being consistently recorded. As a result it is currently difficult to quantify the scale of impact of proposed options. Feedback on the impacts of proposals will be sought through consultation. Following consultation the RIS will be updated, and a cost benefit analysis and section 32 report will be prepared.

APPENDIX 1 – ACTIVITIES REGULATED BY THE NESCS

The NESCS applies to five specified activities:

- removing or replacing all, or part of, a fuel storage system
- sampling the soil
- disturbing the soil
- subdividing the land
- changing the land use.

These activities can all be carried out as permitted activities if certain criteria are met. The criteria vary, depending on the activity[7]. The intent of the NESCS is that activities considered to have a low potential for significant adverse effects on human health are permitted, provided the activities meet the requirements set in the regulations. Where activities cannot meet the permitted activity requirements, resource consent is required in one of three categories (controlled, restricted discretionary, and discretionary), based on the risk posed to human health on the site.

Table 3: Types of resource consent under the NESCS and relationship to risk

Types of NESCS consents	Risk to human health
Controlled	A DSI has found that the contaminants present on site are below human health guideline values, but above background concentrations.
Restricted discretionary	A DSI has found that contaminant concentrations on site exceed guideline values.
Discretionary	A DSI has not been undertaken, and so the risks to human health on the site have not been established.

[7] Refer to regulation 8 of the NESCS.

APPENDIX 2 – STANDARDISED SITE MANAGEMENT PLAN

Proposed template ongoing site management plan for residential properties

Mandatory management practices:

- all vegetables to be grown in clean soil in raised garden beds
- children's primary play area on site identified and ground cover replaced with clean material*
- any soil removed from the site is disposed of appropriately
- soil brought onto site is clean soil (see page 12 of Ministry for the Environment (2016b)) for the proposed use
- all residents, including temporary residents and tenants, are to be made aware of the requirements of the site management plan.

**This management practice would be optional where the 'no produce' option is selected*

Advice notes on simple practices to minimise people's exposure to contaminated soil will also be included:

- reduce soil transport indoors – eg, removing shoes before going inside
- thoroughly wash any home grown produce, remove outer leaves or skin
- minimise dust inside – eg, thorough and regular cleaning
- avoid having exposed soil (by maintaining vegetative or other cover).

These are advice notes, as they would be unenforceable as rules.