




**MINISTRY OF BUSINESS,  
INNOVATION & EMPLOYMENT**  
HĪKINA WHAKATUTUKI



**NEW ZEALAND**  
PETROLEUM & MINERALS

---



# Managing third party risk exposure from onshore petroleum wells

**Discussion Document**  
**March 2017**

---

The opinions and proposals contained in this document are for discussion purposes only and do not necessarily reflect Government policy.

Readers are advised to seek specific legal advice from a qualified professional person before undertaking any action in reliance on the contents of this publication. The contents of this discussion paper must not be construed as legal advice. The Ministry of Business, Innovation and Employment does not accept any responsibility or liability whatsoever whether in contract, tort (including negligence), equity or otherwise from any action taken as a result of reading, or reliance placed on the Ministry or because of having read any part, or all, of the information in this discussion paper or for any error, inadequacy, deficiency, flaw in or omission from the discussion paper.

Ministry of Business, Innovation and Employment  
Energy and Resource Markets Branch  
15 Stout Street  
PO Box 1473  
Wellington 6140

[www.mbie.govt.nz](http://www.mbie.govt.nz)

ISBN: 978-1-98-851739-1 (online)

## Contents

Glossary .....	5
Abbreviations .....	5
Executive summary .....	6
Background .....	8
Problem Definition .....	10
Objectives.....	13
Options.....	14
Next steps.....	18
Annex 1: Summary of options against the criteria.....	19
Annex 2: Summary of questions .....	20

## Making a submission

We are seeking comments on this discussion paper by **19 April 2017**. We have included some questions to assist you, but your general comments are also welcome. Where we have asked for comments on an issue, we are particularly interested in your views on the costs, benefits and risks of each proposal. Where possible and appropriate, please provide quantified estimates of these costs, benefits and risks.

When making a submission, please include your name, your organisation's name (if applicable), and your address (postal and/or email).

To send us your comments email them, preferably in an attached Microsoft Word document, to [onshorefinancialassurance@mbie.govt.nz](mailto:onshorefinancialassurance@mbie.govt.nz).

## Posting and release of submissions

We may make written submissions public by posting them online at: [www.mbie.govt.nz](http://www.mbie.govt.nz)

By you making your submission we will take you to have consented to us posting it online, unless you clearly state otherwise in your submission. If your submission includes sensitive material that cannot be published, please provide two versions – a full version and a publishable version.

In any case, all information provided to the Ministry of Business, Innovation and Employment is subject to public release under the Official Information Act 1982. Please tell us if you have any objection to us releasing any of the information contained in your submission, and in particular, which part or parts you believe should be withheld, together with the reasons for withholding the information. We will take into account all objections of this kind when we respond to requests under the Official Information Act for copies of submissions and information about submissions.

## Privacy

The Privacy Act 1993 establishes certain principles to govern the collection, use and disclosure of information about individuals by various agencies, including the Ministry of Business, Innovation and Employment. The Act also governs access by individuals to information that agencies hold about them.

If you provide any personal information in the course of making your submission, the Ministry will use that information only in relation to the matters covered by this discussion paper.

Please clearly indicate in your submission if you do not want your name to be included in any summary of submissions that we might publish.

## Glossary

- Plugging and abandonment: When a well is sealed, making it permanently inoperable.
- Remediation: May include removing infrastructure and cleaning up any leaking fluids.
- Well failure: The uncontrolled leak of subsurface fluids.

## Abbreviations

- CMA – Crown Minerals Act 1991
- EEZ – Exclusive Economic Zone
- EPA – Environmental Protection Authority
- HSWA – Health and Safety at Work Act 2015
- MBIE – Ministry of Business, Innovation and Employment
- MfE – Ministry for the Environment
- MoT – Ministry of Transport
- NZP&M – New Zealand Petroleum and Minerals
- OEE – Operators Extra Expense
- PCBU – Person Conducting a Business or Undertaking
- PCE – Parliamentary Commissioner for the Environment
- RMA – Resource Management Act 1991

## Executive summary

1. The Ministry of Business, Innovation and Employment (**MBIE**) is assessing options to manage the financial risk exposure to third parties from current or future onshore petroleum wells. Third parties include land owners and occupiers, and the Crown as a last resort.
2. New Zealand's onshore petroleum regulatory regime is based on the principle that the liability for plugging and abandoning, and remediating onshore petroleum wells that fail<sup>1</sup> lies with either the permit holder who undertook the activity or who assumed liability in the case of a transfer of permit interest.
3. Where the former permit holder is not liable or can no longer be held liable, third parties are exposed to the costs of current and future onshore wells. Specifically, the financial exposure relates to:
  - a. remediating a well that fails. Remediation involves cleaning up: surface water contamination from minerals, bacteria and drilling waste; leakage from aquifers to surface; contamination of groundwater; or hydrocarbons leaking to surface or into aquifers; and
  - b. plugging and abandoning a well that poses an environmental or health and safety risk, in cases when the permit holder failed to do so. Plugging and abandonment is when a well is sealed, making it permanently inoperable. Plugging and abandonment standards are administered by several regulators under a number of regulatory regimes.
4. The mean risk exposure to third parties, over a ten year period, is estimated to be \$14 million for current and future wells. Plugging and abandonment is estimated to cost between \$0.3 million and \$2 million per well, excluding the cost of surface rehabilitation. These estimates may be overstated, because only four wells have failed, to date, where third parties have been financially exposed. Third parties have spent approximately \$1.12 million in total on remediation in these cases.

### Existing mechanisms that can manage third party risk exposure

5. There are currently no mechanisms under which the original permit holder contributes to the financial management of the residual risk of well failure. However, a number of mechanisms can be used by different parties to manage third party risk exposure for the cost of plugging and abandonment, e.g. including financial assurance provisions in resource consents or land access arrangements. In practice, these mechanisms are not widely utilised because third parties do not appear to be aware of the circumstances in where they are financially exposed. There are Crown-funded mechanisms (e.g. the Contaminated Sites Remediation Fund) that can be used to fund the remediation of wells if they fail, although receiving this funding is an uncertain and time consuming process.

### Options to manage third party risk exposure

6. This paper seeks feedback on the following four options to manage third party risk exposure:

---

<sup>1</sup> The main example of well failure is uncontrolled leaks of subsurface fluids.

- a. issue non-statutory guidance on the nature of financial exposure and existing financial assurance mechanisms;
  - b. assess and monitor insurance policies;
  - c. require bonds to cover plugging and abandonment obligations; and
  - d. establishing a pooled fund to pay for remediation, and plugging and abandonment costs where third parties are financially exposed.
7. Annex 1 contains a summary of the options proposed.
8. The options proposed in this paper to manage third party risk exposure are not mutually exclusive. A combination of the options may be the most effective way to manage third party risk exposure.
9. The options proposed require the petroleum industry, either collectively or individually as permit holders, to assume the majority of risk exposure. However, no options would completely eliminate the risk exposure to third parties. No options propose that individual petroleum permit holders remain exposed in perpetuity.
10. MBIE welcomes your feedback on these proposals. To help you consider your response, questions are provided in Annex 2. Please submit your feedback by **19 April 2017**.

## Background

### New Zealand's petroleum policies are administered under several regulatory regimes

11. New Zealand's petroleum policies are administered under several regulatory regimes at both the central and local government level. Different regulators are responsible for managing different aspects of petroleum operations, such as the allocation of petroleum rights, environmental effects, and work health and safety.
12. MBIE manages the Crown's petroleum and minerals resources under the brand New Zealand Petroleum and Minerals (**NZP&M**). The Crown has owned all petroleum existing in its natural condition in land under New Zealand jurisdiction since its nationalisation under the Petroleum Act 1937. Crown ownership continues under section 10 of the Crown Minerals Act 1991 (**CMA**).
13. The purpose of the CMA is to allocate rights to Crown-owned minerals. All activity to prospect, explore and mine Crown-owned minerals requires a permit from the Minister of Energy and Resources under the CMA. Section 8(2) of the CMA sets out some minor exceptions to this rule. Exploration and production drilling occurs under petroleum exploration and mining permits.
14. After being granted a permit, onshore petroleum permit holders may require a Resource Management Act 1991 (**RMA**) resource consent from the relevant local authority in order to carry out physical petroleum exploration or mining activity. Resource consents intend to ensure that activities avoid, remedy or mitigate any adverse effects on the environment.
15. Permit holders also require a land access agreement from land owners and occupiers to undertake petroleum activity.
16. Permit holders are also required to comply with the Health and Safety at Work Act 2015 (**HSWA**) and the Health and Safety at Work (Petroleum Exploration and Extraction) Regulations 2016, which set out work health and safety obligations applying to petroleum operations.

### Plugging and abandonment, and remediation requirements

17. Plugging and abandonment is when a well is sealed, making it permanently inoperable. Plugging and abandonment standards are administered by several regulators, under the CMA, the HSWA, and RMA. Under the RMA, local authorities may impose plugging and abandonment conditions. CMA work programmes require permit holders to plug and abandon a well while the permit is active.
18. There is a small risk of any onshore petroleum well failing after plugging and abandonment has occurred. If a well fails, the site may need to be remediated.
19. Remediation may include cleaning up: surface water contamination from minerals, bacteria and drilling waste; leakage from aquifers to surface; contamination of groundwater or; hydrocarbons leaking to surface or into aquifers. Ongoing monitoring may be necessary to ensure that well failure does not reoccur and that site remediation has been successful.



## **The Parliamentary Commissioner for the Environment recommended that industry bear the costs of monitoring and remediating well leaks**

20. In June 2014, the Parliamentary Commissioner for the Environment (**PCE**) issued a report titled *Drilling for oil and gas in New Zealand: Environmental oversight and regulation*. The report assessed the “system of laws, agencies and processes that oversee and regulate the [onshore petroleum] industry.”
21. The PCE concluded that “extensive reform of New Zealand’s laws, agencies, and processes is not yet required for effective management of the local environmental effects of onshore oil and gas extraction.”
22. Recommendation Four was that the Minister of Energy and Resources:
  - a. *“requires the adequacy of public liability insurance held by companies bidding for exploration permits to be assessed by New Zealand Petroleum and Minerals [which is part of MBIE] as part of ‘credit checking’; and*
  - b. *ensure that the oil and gas industry bears the cost of ongoing monitoring of abandoned oil and gas wells and the remediation of future leaks, by, for example, the imposition of an annual levy.”*
23. In evaluating the PCE’s Recommendation Four, MBIE undertook a broad review of financial assurance and risk exposure for onshore petroleum wells to manage the risk exposure to third parties. As part of the response, MBIE established the Well Investigation Project to determine the potential risk exposure for well failure by collecting New Zealand-specific data. The project received a one-off appropriation of \$960,000 in 2016, and will be completed by 2020.

## **The Government is assessing options to improve the framework for managing the Crown’s exposure for offshore petroleum operations through separate initiatives**

24. The Government is undertaking a number of other policy initiatives that seek to improve the framework for managing the Crown’s financial exposure for offshore petroleum operations during the lifecycle of a permit.
25. Offshore financial assurance: The Government recently consulted on increasing the minimum requirement for financial assurance for offshore petroleum installations. This seeks to ensure that operators are able to meet their legal obligations and cover their potential liability in the event of an unplanned event, e.g. an oil spill.
26. Offshore decommissioning: The Government is establishing the mechanisms<sup>2</sup> to improve the framework for managing offshore decommissioning in the Exclusive Economic Zone (**EEZ**). The framework seeks to provide a more certain path to attain a marine consent for decommissioning by requiring operators to submit a decommissioning plan to the Environmental Protection Authority (**EPA**).

## **Scope of the discussion document**

27. This paper focuses on managing third party financial risk exposure from current and future onshore petroleum wells. Current wells are ones that have a permit holder with an active

---

<sup>2</sup> New regulations will be drafted after the Resource Legislation Amendment Bill is implemented.

CMA permit or any applicable resource consents. Future wells are those wells anticipated to be drilled by a permit holder in the future.

28. This document does not discuss managing the risk exposure from historic onshore petroleum wells. Historic wells are ones that do not currently have a permit holder or resource consent holder that can be found liable. Whereas, current and future wells *have or will have* a permit holder that can financially contribute, while the permit is active, to manage the residual risk of well failure. Therefore, only current and future permit holders can be subject to the proposals contained in this discussion document.
29. This paper does not address third party risk exposure for offshore petroleum operations. The Government is addressing financial assurance for offshore petroleum installations separately, as mentioned above.

## Problem Definition

### **Third parties are currently financially exposed from onshore petroleum wells**

30. New Zealand's onshore petroleum regulatory regime is based on the principle that the liability for plugging and abandoning, and remediating onshore petroleum wells that fail lies with either the permit holder who undertook the activity or who assumed liability in the case of a transfer of permit interest.
31. Where the former permit holder is not liable or can no longer be held liable, third parties are exposed to the costs of current and future onshore wells. Specifically, the financial exposure relates to:
  - a. remediating a well that fails; and
  - b. plugging and abandoning a well that poses an environmental or health and safety risk, in cases when the permit holder failed to do so.
32. MBIE found that land owners and occupiers do not appear to be aware of the circumstances in which they are financially exposed. The information gap has arisen because, out of the 964 wells that have been drilled in New Zealand, there have only been four cases of well failure where third parties have been financially exposed.

### **Remediating a petroleum well that fails where third parties are financially exposed**

33. Land owners and occupiers are financially exposed for remediation if a well fails in the following circumstances:
  - a. the six month period for enforcing the RMA discharge provisions has passed;
  - b. there are uncertain causal links between the discharge and a permit holder's actions;
  - c. the discharge of contaminants occurs from wells where the permit holder met the contemporary legislative requirements;

- d. where the Environment Court or enforcement officer requires a person to do something that is necessary to avoid, remedy, or mitigate any actual or likely adverse effect on the environment; and
- e. the permit holder ceases trading and no other party can be found to assume these responsibilities.

### **Plugging and abandoning a petroleum well where the permit holder failed to do so**

34. In some circumstances, a permit holder may not plug and abandon a well, e.g. if the permit holder ceases to trade, or fails to plug and abandon a suspended well while the permit is active. If permit holders fail to meet their plugging and abandonment obligations:
- a. land owners and occupiers are exposed to the cost of plugging and abandonment, under the RMA, if the well poses an environmental risk;
  - b. the Crown is exposed to the cost of plugging and abandonment if the Crown assumes or chooses to assume the CMA permit interest; and
  - c. the HSWA may apply in limited circumstances where the leaking well poses a work health and safety risk – the applicable Person Conducting a Business or Undertaking (PCBU) may be required to take action to address the issue. However, if applicable, the requirement under the HSWA regime is to do what is reasonably practicable to address the work health and safety risk, rather than having any mandatory obligation to plug and abandon the well.

### **Estimates of third party financial risk exposure**

35. MBIE commissioned an external technical assessment that modelled the potential financial exposure to third parties of wells. It concluded that, over a ten year period, the mean estimate of risk exposure is \$14 million for current and future wells.
36. Plugging and abandonment is estimated to cost between \$0.3 million and \$2 million per well, excluding the cost of surface rehabilitation.
37. There are limitations to the above the risk exposure estimates because there is limited New Zealand-specific information available. These risk exposure estimates have been modelled on Alberta, Canada, where more wells have been drilled. This data may not be transferable to the New Zealand context because of differences in geology and regulation. Further, in New Zealand, third parties have only spent approximately \$1.12 million in remediating four wells.
38. MBIE will continue to determine the potential risk exposure for well failure by collecting New Zealand-specific data through its Well Investigation Project that commenced in 2016. The Government provided a one-off appropriation of \$960,000 through to 2020 to collect this information. MBIE is also commissioning an additional study to assess likelihood of well failure to assist in better understand the nature of risk exposure.

#### **Question 1**

Do you agree with our assessment of the issues? If not, why not? What other factors would you consider?

## Current financial risk management mechanisms for onshore petroleum wells

39. There are currently no regulatory mechanisms where the original permit holder contributes to the financial management of the residual risk of well failure. However, a number of mechanisms can be used by different parties to manage third party risk exposure for the cost of plugging and abandonment, e.g. including financial assurance provisions in resource consents or land access arrangements. In practice, these mechanisms are not widely utilised because third parties do not appear to be aware of the circumstances in where they are financially exposed. There are Crown-funded mechanisms (e.g. the Contaminated Sites Remediation Fund) that can be used to fund the remediation of these wells if they fail, although receiving this funding is an uncertain and time consuming process.
40. The following outlines the financial risk management mechanisms that can currently be utilised by third parties.

### *Ministry of Business, Innovation and Employment under the Crown Minerals Act 1991*

41. The CMA regime does not provide for the imposition of financial assurance provisions, including for plugging and abandonment, and rehabilitation requirements.
42. MBIE manages financial risk exposure under the CMA through assessing a permit applicant's financial capability to give proper effect to their work programme through to the end of production, including plugging and abandonment. However, it does not assess whether the permit holder will have the capability to ensure well-integrity into perpetuity.
43. MBIE does not reassess a permit holder's financial capability once a permit has been granted unless the permit interest is transferred, or there is a change of control or change of operator. However, MBIE can revoke a permit if the permit holder is not meeting their permit conditions, work programme obligations, which may be an indication of a change in financial capability.
44. The CMA does not require that permit holders have insurance, which could leave third parties exposed if a well fails where the permit holder does not hold adequate insurance. However, most permit holders have adequate public liability insurance as part of good industry practice to manage risk exposure from the start of an operation, and Operators Extra Expense (OEE) from the point of drilling a well to the completion of plugging and abandonment.
45. The review that informed the amendments to the CMA in 2013 did not identify any significant issues with the financial capability test. The amendments removed the ability for MBIE to impose bonds on a CMA permit, and did not replace it with the ability to impose other forms financial assurance.

### *Land owners and occupiers*

46. Under the CMA, permit holders require a land access agreement from land owners and occupiers to undertake petroleum activity on their property. Land owners and occupiers can negotiate financial assurance provisions in land access agreements with permit holders to manage their risk exposure, although this is not common practice.

### *Local authorities under the Resource Management Act 1991*

47. Onshore permit holders are required to seek resource consent for physical activities, such as drilling a well, from the relevant local authority under the RMA, unless it is a permitted activity.
48. Local authorities can impose conditions to ensure that consent holders appropriately manage the adverse effects. Conditions may include a requirement that consent holders:
  - a. provide a bond for the performance of any one or more conditions of the consent under section 108 of the RMA. Bonds may be used to provide financial assurance for the costs of plugging and abandonment, and site rehabilitation; and/or
  - b. obtain and maintain public liability insurance of a specified value.
49. However, these conditions do not mitigate the residual risk of failure where third parties are financially exposed. A bond will be returned to the consent holder once it has fulfilled its plugging and abandonment, and rehabilitation obligations. Consent holders would not have to hold public liability insurance after their liability under the RMA has expired.

### *Contaminated Sites Remediation Fund*

50. The Contaminated Sites Remediation Fund, which is managed by MfE, can be used to fund the remediation of petroleum well sites. However, MfE has a priority list of 10 contaminated sites, and the Contaminated Sites Remediation Fund is currently over-subscribed. The Contaminated Sites Remediation Fund receives an annual appropriation of \$2.63 million.

#### **Question 2**

Do you agree with our assessment of the New Zealand's current financial risk management mechanisms for onshore petroleum activities? If not, why not?

## **Objectives**

51. The Government considers that any mechanisms to manage third party risk exposure from current and future onshore petroleum wells should:
  - a. **minimise the risk of third parties funding plugging and abandonment or remediation when current and future wells when third parties are financially exposed.** It is desirable to uphold the principle that the liability for remediating onshore petroleum wells lies with the permit holder who undertook the activity or who assumed liability in the case of a transfer of permit interest;
  - b. **minimise disruption for permit holders.** It is desirable to minimise disruption to permit holders to ensure that New Zealand remains internationally competitive for petroleum activity; and
  - c. **be equitable to different parties.** It is important that any mechanisms that MBIE implements do not disproportionately financially benefit or impose costs on any party. Parties include permit holders, central government, local authorities, and land owners and occupiers.

### Question 3

Do you agree with these objectives? Would you suggest any others?

## Options

52. This section outlines four options to manage third party risk exposure from onshore petroleum wells. These options are:
- Option 1 – non-statutory guidance on financial assurance mechanisms;
  - Option 2 – assess and monitor insurance policies;
  - Option 3 – require bonds to cover plugging and abandonment obligations under the CMA; and
  - Option 4 – establish a pooled fund that permit holders contribute to through a levy.
53. The options proposed would require industry, either collectively or individually as permit holders, to assume the majority of risk exposure. However, no options would completely eliminate the risk exposure to third parties. No options propose that individual permit holders remain liable in perpetuity.
54. The options proposed are not mutually exclusive, and a combination of options could be implemented. Further information is required to determine the amount of financial assurance required under each option.
55. The table in Annex 1 summarises the options proposed and the options analysis.

### **Option 1: Release non-statutory guidance on existing financial assurance mechanisms**

56. This option would retain the existing financial assurance mechanisms. MBIE would issue non-statutory guidance to publicise the nature of third party financial exposure. It would also publicise the existing financial assurance mechanisms that are available to third parties to manage their risk exposure. Existing financial assurance mechanisms include adding provisions such as insurance or bonds in resource consents or land access agreements.
57. Guidance could include templated resource consent and land access arrangement provisions. Guidance could also suggest appropriate provisions and levels of financial assurance. It would be targeted towards local authorities, and land owners and occupiers.
58. Land owners and occupiers or local authorities would need to agree on the amount and form of the financial assurance included in land access arrangements or resource consents, respectively.

#### *Analysis of Option 1: Release non-statutory guidance on existing financial assurance mechanisms*

59. This option would help third parties manage their own financial risk exposure by providing them with information to ensure that they are aware of the circumstances where they may be

financially exposed, and provide guidance on the mechanisms that can be utilised to manage their risk exposure.

60. This option is less disruptive for permit holders because it does not impose any further charges or compliance costs on industry participants. Suggesting levels of financial assurance required to manage the third party risk may reduce the likelihood of local authorities, or land owners and occupiers, requesting disproportionate levels of financial assurance on permit holders.
61. However, under this option, former permit holders would not contribute to the management of third party residual risk of a well failing through financial assurance provisions while their permit is active.

#### **Question 4**

Do you agree with Option 1 to release non-statutory guidance on existing financial assurance mechanisms available to third parties?

### **Option 2: Assess and monitor insurance policies**

62. This option would require MBIE, in considering permit applications, to assess the insurance policies that the applicant proposes to hold. These insurance policies may include public liability insurance and Operators Extra Expense (**OEE**). MBIE would monitor a permit holder's insurance policies through Annual Summary Reports, which are submitted under the Crown Minerals (Petroleum) Regulations 2007.
63. The CMA currently does not allow MBIE to assess the insurance permit holders have. Therefore, implementing this option would require an amendment to sections 29A and 29B of the CMA, and the Crown Minerals (Petroleum) Regulations 2007.

#### *Analysis of Option 2: Assess and monitor insurance policies*

64. This option would ensure that active permit holders have the financial capability that is likely to be required to effectively respond to a well failure while the CMA permit is in force.
65. This option would manage third party risk exposure because it provides certainty that permit holders would have access to the funds for plugging and abandonment or remediation while the CMA permit is active. However, it would not manage third party risk exposure if a well failed where third parties are financially exposed because the former permit holder would no longer be required to hold insurance.
66. In practice, this option would not be disruptive for industry. As part of good industry practice to manage risk exposure, most permit holders have adequate public liability insurance from the start of an operation, and OEE from the point of drilling a well to the completion of plugging and abandonment. However, third parties could be exposed if an onshore petroleum well fails where a permit holder does not hold adequate insurance policies.
67. This option would impose minor additional costs on MBIE and permit holders. MBIE would need to assess the proposed insurance for every permit applicant. This adds another requirement in processing permits, which may increase the cost and time taken to process these permit applications.

68. This option is equitable because each permit holder would bear the costs of their own insurance policies. This would ensure that the permit holder whose actions gave rise to the activity bears the costs and responsibilities for any financial risks while the CMA permit is in force.
69. It is not equitable for third parties, particularly land owners and occupiers, because it leaves them exposed to the cost of plugging and abandonment, and remediating well sites where third parties are exposed.

#### **Question 5**

Do you agree with Option 2 to assess and monitor insurance policies?

### **Option 3: Require bonds to cover plugging and abandonment obligations under the CMA**

70. This option would require bonds under the CMA to ensure that permit holders complete their work programme obligations, including plugging and abandonment obligations. This would reduce third party risk exposure if a permit holder fails to plug and abandon a petroleum well.
71. This option would require an amendment to section 97 of the CMA so that bonds can be used to ensure that permit conditions are met. It would also require new regulations under section 105(k) of the CMA.
72. If implemented, permit holders would have the option to lodge a cash bond or purchase performance bonds from a lender, such as a bank. The bond amount would depend on a permit's work programme commitments.
73. Cash bonds are typically held in trust accounts and are subject to the completion of set performance targets such as plugging and abandonment, and site rehabilitation. Cash bonds would be returned to the permit holder when they have fulfilled their work programme obligations and general conditions.
74. New Zealand banks can establish performance bonds on behalf of permit holders. This bond involves a third party agreeing to meet set costs should the permit holder default on stipulated obligations. The permit holder would pay a premium per annum, which would likely be between one and 2.5 per cent of the total bond. Permit holders would stop paying the premium when their permit expires.

#### *Analysis of Option 3: Require bonds to cover plugging and abandonment obligations under the CMA*

75. Requiring bonds under the CMA would minimise third party risk exposure because funds would be readily available to plug and abandon the well if a permit holder fails to complete their work programme obligations.
76. Bonds would not manage third party risk exposure for remediating a petroleum well that fails where third parties are financially exposed. Cash bonds would be returned to the permit holder, and performance bonds would no longer be required after the permit holder had fulfilled their work programme obligations. Permit holders would still be liable under the CMA while the permit is still in force, even if plugging and abandonment had occurred.
77. Imposing bonds under the CMA, rather than relying on financial assurance under resource consents or land access agreements, means that MBIE would be able to ensure greater



consistency in the level of bonds required by different permit holders because the bond would be set at the central government level. However, requiring bonds under the CMA may result in regulatory duplication if local authorities and land owners and occupiers also decided to impose bonds.

78. Requiring bonds may result in a high financial burden for permit holders. In total, industry would have to provide over \$1 billion in bonds if all permit holders were required to lodge cash bonds covering the full cost of plugging and abandonment. Performance bonds would cost permit holders between \$10 million and \$40 million in total. This could potentially direct capital away from petroleum exploration and mining, and affect New Zealand's investment attractiveness. Further, requiring bonds may be excessive given that third party risk exposure is estimated to be \$14 million over a ten year period.
79. Requiring bonds would be equitable because each permit holder would bear the plugging and abandonment cost for their petroleum wells. Therefore, this option may be the best way to ensure that the permit holder whose actions gave rise to the activity bear the costs and responsibilities for any financial risks, such as the cost of plugging and abandonment.

#### **Question 6**

Do you agree with Option 3 to require bonds to cover plugging and abandonment obligations under the CMA?

#### **Option 4: Establish a pooled fund that permit holders contribute to through a levy**

80. This option involves establishing a pooled fund that permit holders collectively contribute to through a levy. The levied fund would manage third party risk exposure for the cost of plugging and abandonment, and remediating well sites that pose environmental or health and safety risks where third parties are financially exposed.
81. Under this option, active permit holders would contribute to the pooled fund through a levy. Wells that have been plugged and abandoned would not be subject to the levy. Permit holders for future petroleum wells would also contribute to the pooled fund through the levy.
82. MBIE has not determined the amount of the levy. If implemented, the levy could be collected and administered under the CMA or RMA. Further work would be needed to determine which regulatory regime would be most appropriate. A legislative amendment would be required to charge a levy under the CMA or RMA.

#### *Analysis of Option 4: Establish a pooled fund that permit holders contribute to through a levy*

83. A pooled fund is the only option proposed that would fully minimise the risk of third parties funding the plugging and abandonment, and remediation of wells that pose a health and safety or environmental risk where third parties are financially exposed.
84. Depending on the amount of the levy, this option will likely have a lower financial impact on permit holders than bonds would. The amount of the collective fund would likely correspond to risk exposure estimates. Third party risk exposure estimates are much lower than current onshore petroleum permit holder's total plugging and abandonment liability, which exceeds \$1 billion, because only a small percentage of wells fail. Therefore, a levy may be a more effective allocation of capital than a bond.

85. This option is equitable between permit holders and third parties because it ensures that industry collectively bears the cost of plugging and abandonment and remediation.
86. If implemented, further work is needed to ensure that permit holders contribute to the levied fund in an equitable manner based on the level of risk exposure that an individual well poses, with the exception of wells that have already been plugged and abandoned.

**Question 7**

Do you agree with Option 4 to establish a pooled fund that permit holders contribute to through a levy?

**Preliminary conclusion**

87. The options proposed are not mutually exclusive, and a combination of options could be implemented. Further information is required to determine the amount of financial assurance required under each option.
88. The options proposed would require industry, collectively or individually as permit holders, to assume the majority of risk exposure. However, no options would completely eliminate the risk exposure to third parties. No options propose that individual permit holders remain liable in perpetuity.

**Question 8**

What option or combination of options do you prefer and why?

**Next steps**

89. We seek your feedback on the options proposed in the discussion document by 19 April 2017. After we have analysed submissions, we will provide advice to the Minister of Energy and Resources on how to advance the proposals.

## Annex 1: Summary of options against the criteria

		Criteria			
		Manages third party risk exposure		Minimises disruption for permit holders	Equitable to different parties
		Plugging and abandonment	Remediation		
<b>Objectives</b>	Option 1 Non-statutory guidance on financial assurance mechanisms	Publicises the nature of third party risk exposure, and provides guidance on existing mechanisms available to third parties to manage their risk exposure.	Provides guidance about the Crown-funded Contaminated Sites Remediation Fund, which can be used to pay for remediation if a well fails.	Does not impose additional costs on permit holders.	Relies on third parties to include financial assurance in resource consents and land access arrangements or other contractual arrangements.
	Option 2 Assess and monitor insurance policies	Insurance would fund plugging and abandonment if a permit holder fails to plug and abandon in line with their work programme obligations.	Does not manage the residual risk exposure for remediation costs if a well fails where third parties are financially exposed.	Most permit holders already hold adequate levels of insurance.	Permit holders bear the risk exposure while the permit is in force.
	Option 3 Require bonds to cover plugging and abandonment obligations under the CMA	Provides funds for plugging and abandonment if a permit holder fails to complete these obligations.	Does not manage the residual risk exposure for remediation costs if a well fails where third parties are financially exposed.	Permit holders would have to lodge a bond, which would impose additional costs on industry.	Permit holders would bear the cost of plugging and abandoning of wells while the permit is in force.
	Option 4 Establish a pooled fund that permit holders contribute to through a levy	Provides funds for plugging and abandonment where third parties are financially exposed.	Provides funds for remediation where third parties are financially exposed.	Permit holders would have to contribute to the pooled fund through a levy, which would impose additional costs on industry.	Equitable between third parties and permit holders.

## Annex 2: Summary of questions

1. Do you agree with our assessment of the issues? If not, why not? What other factors would you consider?
2. Do you agree with our assessment of the New Zealand's current financial risk management mechanisms for onshore petroleum activities? If not, why not?
3. Do you agree with these objectives? Would you suggest any others?
4. Do you agree with Option 1 to release non-statutory guidance on existing financial assurance mechanisms available to third parties?
5. Do you agree with Option 2 to assess and monitor insurance policies?
6. Do you agree with Option 3 to require bonds to cover plugging and abandonment obligations under the CMA?
7. Do you agree with Option 4 to establish a pooled fund that permit holders contribute to through a levy?
8. What option or combination of options do you prefer and why?