

# Activity classifications under the EEZ Act:

A discussion document on the regulation of exploratory drilling, discharges of harmful substances and dumping of waste in the Exclusive Economic Zone and continental shelf

New Zealand Government

# Acknowledgements

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# Foreword

The Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act 2012 came into force in June 2013, filling an important gap in our environmental regime. New Zealanders place a high value on our oceans and this Act ensures responsible management of our Exclusive Economic Zone (EEZ).

This consultation document outlines our proposals for effective management of exploratory drilling for oil and gas, discharges of harmful substances and dumping of waste in the EEZ.

The proposals in this discussion document balance the need to protect the ocean environment, while not overly burdening industry with excessive costs and extended timeframes.

Commercial activity in our EEZ needs to be carefully managed. It makes sense for the level of regulation of activities in the EEZ to be proportionate to the scale and environmental effects of these activities.

Currently, activities in the EEZ may be classified as permitted, discretionary or prohibited. The addition of a non-notified discretionary classification provides environmental protection, while reducing compliance costs for operators. This classification provides a further option in the EEZ Act.

I am confident that the proposed classifications maximise the economic opportunities in our EEZ while managing the environmental risks.

I encourage you to read this discussion document and I welcome your comments and suggestions on these proposals.

aum. Hon Amy Adams

Minister for the Environment

# **Executive summary**

New Zealand's ocean area is one of the largest in the world, and there are both opportunities and responsibilities that go with being a globally significant maritime nation. This is particularly so because our ocean resources are coming under increasing development pressure from a growing global population, depletion of resources on land, and advances in technology that are making ocean resources more accessible.

In order to provide for the sustainable management of resources in New Zealand's Exclusive Economic Zone (EEZ) and continental shelf, the Government passed the Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act 2012 (EEZ Act). Activities may be classified as either *permitted*, *discretionary* or *prohibited*.

However, the Government is seeking to address the higher costs and longer timeframes associated with a full *discretionary* consenting process for some activities while maintaining an appropriate level of oversight and discretion over these activities, which cannot be provided if they are classified as *permitted*.

To achieve this, the Government is seeking to introduce a new *non-notified discretionary* classification to the EEZ Act via the Marine Legislation Bill (ML Bill), which is currently before Parliament. Parliament must first pass the ML Bill to enable the Minister to recommend that the Governor-General classify activities as *non-notified discretionary* in regulations. The aim of this new classification is to cut consenting costs and timeframes for applicants compared to the *discretionary* classification, while maintaining appropriate regulatory oversight of the impacts of these activities on the environment and existing interests, which cannot always be provided for by a *permitted* classification.

This discussion document seeks your feedback on the Government's proposals for regulating:

- exploratory drilling for oil and gas<sup>1</sup>
- discharges of harmful substances from offshore structures and production facilities on board mineral mining ships
- dumping of waste.

The ML Bill will transfer the responsibility for managing these discharge and dumping activities from the Maritime Transport Act 1994 (MTA) to the EEZ Act. Table 1 summarises the proposals, including the proposed classification for each of the activities. This shows how the new *non-notified discretionary* classification would be applied under the proposals.

The overall intent of the proposals is to meet the purpose of the EEZ Act by ensuring sustainable management of New Zealand's ocean resources in the EEZ and continental shelf. Submissions are being sought on whether:

- the assessment of the issues is correct
- the proposals would deliver effective and efficient oceans management, or whether, in your view, better alternatives exist
- any unintended consequences may arise from the proposals.

<sup>&</sup>lt;sup>1</sup> All references to exploratory drilling in this document refer to the drilling of exploratory wells and discovery appraisal wells in the Exclusive Economic Zone and continental shelf.

Table 1: Summary of the issues and proposals in this discussion document		
Issues	Proposals	
For oil and gas exploratory drilling, the costs to applicants of the current <i>discretionary</i> classification are disproportionate when considered against the scale of the activity and the impacts on the environment and existing interests. However, a <i>permitted</i> activity classification provides insufficient regulatory oversight.	Exploratory drilling for oil and gas is to be classified as <i>non-notified discretionary</i> under the EEZ Act.	
The Marine Legislation Bill requires the definition of	Define harmful substance as:	
<i>harmful substances</i> to be set in regulations made under the EEZ Act.	<ul> <li>(a) a substance which is ecotoxic to aquatic organisms and considered hazardous for the purposes of the Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001, or</li> </ul>	
	(b) oil, or	
	(c) garbage, or	
	(d) discharged sediments and/ or tailings from mineral operations.	
	This proposal builds on the current definition set out in the MTA and is expanded to capture sediments and/ or tailings.	
The regulation of garbage discharges from offshore installations is being transferred from the MTA to the EEZ Act, and the Minister must recommend the appropriate classification for these activities.	To be <i>permitted</i> with conditions, reflecting the current MTA approach and international obligations arising from MARPOL Annex V. Discharges above thresholds allowed in MARPOL will be <i>prohibited</i> .	
The regulation of offshore processing drainage discharges and displacement water discharges is being transferred from the MTA to the EEZ Act, and the Minister must recommend the appropriate classification for these activities.	To be <i>permitted</i> up to certain thresholds and to be classified as <i>non-notified discretionary</i> above those thresholds.	
The regulation of discharges of oily waste from machinery space on offshore installations is being transferred from the MTA to the EEZ Act, and the Minister must recommend the appropriate classification for these activities.	To be <i>permitted</i> with conditions that reflect MARPOL requirements and the current MTA approach. Discharges above thresholds allowed in MARPOL to be <i>prohibited</i> .	
The regulation of burials at sea is being transferred from the MTA to the EEZ Act, and the Minister must recommend the appropriate classification for these activities.	To be <i>permitted</i> with conditions that meet the requirements of the London Protocol by requiring certificate of compliance.	
The regulation of discharges of drilling fluids from oil and gas drilling is being transferred from the MTA to the EEZ Act, and the ability to regulate the discharge of sediments and/ or tailings from mineral operations is proposed to be introduced to the Act. The Minister must recommend the appropriate classification for these activities.	To be classified in accordance with the classification of the broader operation of which the discharge is part.	

Table 1: Summary of the issues and proposals in this discussion document		
Issues	Proposals	
The regulation of production water discharges is being transferred from the MTA to the EEZ Act, and the Minister must recommend the appropriate classification for these activities.	To be <i>non-notified discretionary</i> . This classification reflects the potentially large scale of the discharge and provides the opportunity for adaptive management.	
The regulation of dumping activities is being transferred from the MTA to the EEZ Act, and the Minister must recommend the appropriate classification for these activities.	Dumping of wastes other than as provided for in the Annexes of the London Protocol or if inconsistent with any Resolutions adopted by Contracting Parties to be <i>prohibited</i> .	
	The dumping of structures or parts of structures during decommissioning of oil and gas production structures is proposed to be <i>discretionary</i> .	
	The dumping of other wastes allowed by the London Protocol to be classified as <i>non-notified discretionary</i>	

Note: MTA = Maritime Transport Act 1994; MARPOL = International Convention for the Prevention of Pollution from Ships 1973, as modified by the Protocol of 1978.

# 1: Implementing New Zealand's ocean environmental management regime

## 1.1 Purpose of the discussion document

This discussion document sets out the Government's proposed regulatory framework for:

- exploratory drilling for oil and gas (this includes the drilling of exploratory wells and discovery appraisal wells, but does not include activities associated with the exploration phase of oil and gas operations that are *permitted* under the EEZ Act)
- the definition of 'harmful substances'
- dumping activities and the discharges that are being transferred to the EEZ Act from the MTA via the Marine Legislation Bill (ML Bill).<sup>2</sup>

Your feedback is welcomed on these proposals and on the questions inserted throughout the text, along with any other information you may want to submit. We are not seeking further feedback on other proposals that were outlined in the 2012 discussion document <u>Managing Our Oceans</u>, except for exploratory drilling for oil and gas (see section 1.3.1).

#### Submissions are due by 5.00 pm on 25 September 2013.

Information on how to make a submission is included at the end of this document on page 25.

# **1.2 Managing our offshore resources well is vital for New Zealand's prosperity**

A nation's EEZ extends from 12 to 200 nautical miles offshore. New Zealand's EEZ is one of the largest in the world at over 4 million square kilometres, or about 20 times the size of its land mass. Figure 1 shows the extent of our EEZ, and of the continental shelf where it extends further than 200 nautical miles.

Current levels of activity in the EEZ and continental shelf are low because commercial and technical viability are barriers to developing the resources contained there. However, this situation may change and there is the potential for activity levels to accelerate relatively quickly.

There are existing petroleum production platforms in Taranaki. There is further interest in petroleum resources in the Taranaki, Reinga-Northland, East Coast, Pegasus, Canterbury and Great South Basins. Seabed mineral resources, including iron sands, precious metals and phosphates, are also being explored.

There are submarine telecommunications cables in the EEZ and on the continental shelf. The Southern Cross fibre-optic cable network is already in place. Marine scientific research projects are also carried out in our EEZ and continental shelf.

Discharge and dumping activities also occur within New Zealand's EEZ and continental shelf. For example, operators may wish to dump dredged sediments, derelict vessels or structures. Burial at sea also falls under the definition of dumping. Many discharge and dumping activities are by-products of other activities (such as oil and gas exploration and mineral mining activities).

<sup>&</sup>lt;sup>2</sup> Specifically, dumping; discharges from offshore installations and pipelines; and discharges from production facilities on ships engaged in mineral mining.

The resource potential of New Zealand's EEZ and continental shelf is extensive. Ensuring an effective regulatory regime to manage the environmental impacts of the activities undertaken in this space is therefore crucial.



Figure 1: Extent of New Zealand's EEZ and continental shelf

The outer limits of the New Zealand ECS north of New Zealand are subject to the delimitation of boundaries with Fiji, Tonga and France in respect of New Caledonia

Source: Land Information New Zealand

### **1.3** New Zealand's approach to offshore resource management

New Zealand's legislative framework for marine areas is multi-layered. The United Nations Convention on the Law of the Sea (UNCLOS) grants New Zealand sovereign rights for the purpose of exploring and exploiting natural resources in the EEZ. These rights must be exercised with due regard to the rights of other states. However, in addition to the sovereign right to explore and exploit the natural resources in their EEZ under UNCLOS, states also have an obligation to protect and preserve the marine environment. Other international conventions to which New Zealand is a party result in additional obligations and responsibilities on New Zealand, and our domestic legislative frameworks need to be consistent with these. The London Protocol and MARPOL cover dumping and marine discharges respectively. In addition, the Convention for the Protection of the Natural Resources and Environment of the South Pacific Region (Noumea Convention) and the Convention on Biological Diversity provide for environmental impact assessments, and public participation in the process, for major projects that are likely to have "significant adverse effects on biological diversity". The EEZ Act operates within these international legal parameters.

With multiple marine jurisdictions, the disposal of waste or other material must comply with any regulations that apply within the proposed area of disposal. This means, for example, that if waste is produced within the EEZ then the operator would need to comply with any EEZ regulations that relate to creating the waste (such as sediments and tailings). However, if that waste was to be disposed in the territorial sea the operator would also need to comply with any relevant legislation governing the area (primarily the Resource Management Act 1991).

#### 1.3.1 The EEZ Act

The EEZ Act's purpose is to promote the sustainable management of the natural resources of New Zealand's EEZ and continental shelf. The Environmental Protection Authority (EPA) is responsible for enforcing the regime and issuing permits. Three different activity classes are currently available under the EEZ Act: *permitted*, *discretionary*, and *prohibited*. The Government intends to add a fourth *- non-notified discretionary*. Parliament is currently considering this fourth classification as part of the ML Bill. Key elements of these four activity classes are summarised in Table 2 and the key processes involved in the different classifications can be found in Appendix A.

#### **Enactment and previous consultation**

The EEZ Act was enacted on 3 September 2012 and came into force on 28 June 2013, when the first regulations were promulgated. The Government consulted on proposals for these regulations in the *Managing Our Oceans* discussion document in mid-2012. Eight hui with iwi were held throughout the country as part of this consultation process. A total of 11,834 submissions were received. The Government considered the submissions and revised the proposals for regulations after undertaking further technical consultation, targeted consultation and overseas expert peer review. The result was the Exclusive Economic Zone and Continental Shelf (Permitted Activities – Environmental Effects) Regulations 2013 (Permitted Activity Regulations).

#### **Permitted activities**

The Permitted Activity Regulations apply to seismic surveying, cable laying and marine scientific research and the prospecting and exploration phases of oil and gas and minerals operations (except exploratory drilling). The Permitted Activity Regulations set out the conditions for these activities, including notification and reporting requirements.

Operators undertaking activities classified under the Permitted Activity Regulations must:

- provide pre-activity notification to the EPA describing the proposed activity, the area in which it will occur, a 'desktop' assessment of likely effects, and plans for managing effects in sensitive environments
- provide notification to relevant iwi prior to the operation and allow four weeks for any engagement that may follow

- detail their daily activity in logbooks during the activity, including any steps taken to mitigate effects on sensitive environments
- complete a post-activity report describing actions taken to mitigate adverse effects.

The EPA will monitor compliance with these conditions, may conduct audits and has the power to take enforcement action if conditions are not complied with.

More information on these regulations can be found on the Ministry for the Environment's website (<u>www.mfe.govt.nz</u>) or on the EPA's website (<u>www.epa.govt.nz</u>).

Table 2: Summary of the EEZ Act activity classifications				
	Permitted	Non-notified discretionary	Discretionary	Prohibited
Activity classified in regulations on the Minister's recommendation*	√	√	The default classification,** but the Minister can recommend terms and conditions	✓
Marine consent application required; activity can be allowed or declined	✗ Activity must be allowed subject to compliance with conditions set in regulations	✓ Statutory timeframes adding up to 60 working days for the EPA to process marine consent EPA has full discretion on decision	✓ Statutory timeframes adding up to 140 working days for the EPA to process marine consent EPA has full discretion on decision	n/a
Environmental impact assessment must be carried out	~ The Permitted Activity Regulations require an initial impact assessment	✓	✓	n/a
Iwi notification	$\checkmark$	~***	~***	n/a
Any consultation with existing interests must be described in impact assessment	×	√	√	n/a
Public notification is required	×	×	~	n/a
Application-specific conditions can apply	× Prescribed, generic conditions can be set out in regulation	✓	√	n/a
Appeal rights for parties other than the applicant are provided for on marine consent decisions	n/a	×	✓	n/a

\* The Minister recommends regulations classifying the activity to the Governor-General, to be made by Order in Council.

\*\* If an activity within the scope of the EEZ Act is not classified in regulations it is *discretionary* by default.

\*\*\* Iwi authorities, customary marine title groups and protected customary rights groups whom the EPA believe may be affected by the application will be served a copy of the consent application.

#### **Requirements for iwi notification**

Operators undertaking activities classified under the Permitted Activity Regulations must notify affected iwi 25 working days before commencing the activity. The operator must provide the EPA with a report detailing any engagement that occurred and any subsequent outcomes at least 5 working days prior to commencement.

For *non-notified discretionary* and *discretionary* activities, once the EPA is satisfied that an application for a marine consent is complete, it is required to notify any iwi authorities, customary marine title groups and protected customary rights groups whom they believe may be affected by the application. For *discretionary* applications, the notification will invite submissions on the application.

#### **Requirements relating to existing interests**

Under the *discretionary* and *non-notified discretionary* classifications, applicants must describe any consultation undertaken with existing interests<sup>3</sup> on their proposed activity when submitting a marine consent application to the EPA. The EPA is required to take into account the impacts that the application will have on existing interests when assessing a marine consent application.<sup>4</sup>

#### 1.3.2 Additional reforms currently underway: the Marine Legislation Bill

The ML Bill, currently before Parliament, introduces reforms to streamline regulatory functions by reducing the duplication of processes and enhancing the management of environmental effects.

The Bill has two parts. Part 1 amends the MTA and aims to promote maritime safety and marine environmental protection by enhancing existing measures in the MTA, implementing three international maritime conventions, and making amendments relating to maritime conventions to which the MTA already gives effect. These changes do not relate to the EEZ Act and are therefore outside the scope of this discussion document.

Part 2 of the Bill makes the following changes that are relevant to the environmental management regime of the EEZ and continental shelf.

- The Bill transfers the regulation of the following activities from the MTA to the EEZ Act, with responsibility for enforcement transferring from Maritime New Zealand (MNZ) to the EPA:
  - discharges of harmful substances from offshore structures and production facilities on board mining ships
  - o dumping of waste.
- The Bill introduces the new *non-notified discretionary* classification to the EEZ Act. This classification aims to cover activities that, although regulator discretion is appropriate, do not warrant using the (notified) *discretionary* process (in terms of financial costs and uncertainty of process and timing), given the activity's nature and likely level of effects.

Discharges are usually part of a broader marine operation such as oil and gas drilling activities or mining activities. They include discharges from offshore installations and pipelines, and discharges from production facilities on ships engaged in mineral mining. Dumping, although sometimes associated with a broader marine operation, can be a standalone activity.

The regulation of the following activities will remain with the MTA and will continue to be enforced by MNZ:

• discharges associated with ships (except for discharges from production facilities on ships engaged in mineral mining activities)

<sup>&</sup>lt;sup>3</sup> A full description of existing interests is included in the Glossary.

<sup>&</sup>lt;sup>4</sup> Section 60 of the EEZ Act outlines the matters the EPA must consider when deciding the extent of adverse effects on existing interests.

- the issuing of International Oil Pollution Prevention Certificates (including warrants for oilfiltering equipment and bilge water holding tanks)
- requirements to maintain an oil record book for machinery space operations
- marine oil spill response planning, reporting of events such as oil spills.

Because these activities are not being transferred they are not subject to consultation in this discussion document.

The transfer comes into effect once the ML Bill is passed and regulations are promulgated to classify discharges and dumping under the EEZ Act. Until then, the existing MTA regime remains in place. Following the transfer of functions, the ML Bill enables MNZ and EPA to share information to help coordinate their regulatory functions.

Regulations that apply the proposed new *non-notified discretionary* classification to activities will only be able to be made once the ML Bill has been passed by Parliament.

Appendix B shows a proposed timeline for the reforms underway to regulate exploratory drilling and discharges and dumping under the EEZ Act.

#### **1.3.3** Other legal frameworks

In addition to the EEZ Act, activities and environmental effects in the EEZ and on the continental shelf are managed through a range of other legislation. When assessing an application for a marine consent, the EPA will take into account what occurs as a result of these other legislative regimes when it determines the extent to which impacts on the environment and existing interests are avoided, remedied or mitigated. The Minister is required to take into account certain matters when recommending regulations under the EEZ Act (see Appendix D). The legislative regimes most relevant to the issues in this discussion document can be divided into those responsible for exploratory drilling for oil and gas, and marine pollution.

#### Exploratory drilling for oil and gas<sup>5</sup>

Once an operator decides to drill, existing marine management regimes have requirements to avoid, remedy or mitigate the risk of oil spills, as follows:

- A permit issued under the Crown Minerals Act 1991 is required from the Minister of Energy and Resources before commencing any prospecting, exploratory or production activity.
- A safety case is required under the Health and Safety in Employment (Petroleum Exploration and Extraction) Regulations 2013 (administered by the Ministry of Business, Innovation and Employment (MBIE))<sup>6</sup>.
- Oil spill contingency planning is required under the MTA.
- Operators of offshore oil installations are required to hold a minimum amount of public liability insurance or other financial security to cover any clean-up or damage costs in the event of an oil spill, under Part 102 of the Marine Protection Rules made under the MTA.<sup>7</sup>

Operators are also required to take into account the following conservation acts:

• The Wildlife Act 1953, which lists what marine species (in Schedule 7A) are absolutely protected.

<sup>&</sup>lt;sup>5</sup> Appendix C sets out a summary of the overall regulatory requirements for exploratory drilling.

<sup>&</sup>lt;sup>6</sup> The safety case must include a description of the control measures that will be taken to eliminate, prevent, reduce and mitigate the risk associated with each hazard having the potential to cause multiple fatalities of persons on or near the installation (major accident hazards). Some of these control measures may also prevent harm to the environment. For example, well control equipment and procedures are used to prevent an uncontrolled release of petroleum that could cause harm to workers and/or the environment.

<sup>&</sup>lt;sup>7</sup> Currently the insurance requirement for offshore oil installations is a minimum of \$NZ 25 million.

• The Marine Mammals Protection Act 1978, under which it is an offence to harass or disturb marine mammals.

#### Marine pollution

Marine pollution matters that are not being transferred to the EEZ regime, such as operational shipping discharges and oil spill contingency planning, continue to be covered by Marine Protection Rules under the MTA and enforced by MNZ.

# 2: Proposals for regulating exploratory drilling, discharges and dumping

In developing these proposals, the Government is seeking to:

- i. deliver the streamlining objectives of the ML Bill by promulgating regulations for discharges and dumping to improve efficiency of the overall marine management regime
- ii. ensure the costs to applicants of regulatory processes under the EEZ Act are proportionate in terms of achieving the purposes of the Act.

Feedback is being sought on regulations for:

- exploratory drilling for oil and gas (see section 2.2)
- dumping and certain discharges activities (see section 2.3)
- the definition of 'harmful substances' that will be regulated by the EEZ Act (see section 2.3).

### 2.1 What are the objectives of the regulations?

The Government's objectives in setting regulations are to ensure they:

- a. fulfil New Zealand's obligations under relevant international conventions relating to the marine environment
- b. provide for protection of the environment in the EEZ and continental shelf
- c. enable economic activity of benefit to operators and the New Zealand economy
- d. are cost-effective, with the cost to government and operators proportionate to the level of environmental effects addressed
- e. provide for consideration of non-environmental impacts, including existing interests, iwi and other matters set out in the EEZ Act, in a manner proportionate to the scale and effects of activities.

These objectives are drawn from the EEZ Act itself, which states that the Minister must take into account matters in section 33(3) of the EEZ Act.<sup>8</sup> Section 33 of the EEZ Act is included in Appendix D of this discussion document.

The remainder subsections 2.2 to 2.4 set out the Government's preferred regulatory approach for offshore exploratory drilling, and for the discharges and dumping activities that are being transferred to the EEZ Act. For each element of the policy proposals there is a discussion of the:

- context
- proposed approach
- expected outcomes.

The package as a whole is intended to provide an appropriate balance between the different objectives set out above for the management of New Zealand's oceans.

<sup>&</sup>lt;sup>8</sup> In order to accurately reflect New Zealand's international obligations, the ML Bill amends section 33 of the EEZ Act in relation to the matters the Minister must consider when making regulations for discharge and dumping activities.

## 2.2 Exploratory drilling in the EEZ and continental shelf

The Government is committed to ensuring that New Zealand has a world-class regulatory regime for the safe and environmentally responsible exploration and production of our oil and gas resources. The introduction of the EEZ Act fills a gap in the regulation of exploratory drilling by assessing the actual and potential impacts on the environment and existing interests, and therefore whether operations should proceed in the proposed location.

The introduction of the EEZ Act was part of a package of reforms intended to ensure that the regulatory system for oil and gas activities works effectively as a whole. These related reform processes are:

- the establishment of a High Hazards Unit within MBIE, to improve capability and capacity to operate effectively in the mining, petroleum and geothermal industries
- MBIE's review of the Crown Minerals Act 1991.

In addition to these regulatory reforms, MNZ completed a review of New Zealand's marine oil spill preparedness and response capability was completed in 2011 and its recommendations were implemented, including upgrading offshore installations' on-site response capability.

#### Phases of oil and gas operations

Oil and gas activities fall into three broad phases of operation:

- prospecting for oil and gas in the EEZ and continental shelf (a *permitted* activity under the EEZ Act that primarily involves seismic surveying)
- exploration, which involves drilling exploratory and discovery appraisal wells (currently *discretionary* and proposed to be *non-notified discretionary* in this discussion document)
- production (a *discretionary* activity under the EEZ Act).

Further details of the processes involved in the exploratory phase of oil and gas operations are included in Appendix E.

#### 2.2.1 Context

#### Economic significance of the oil and gas industry in New Zealand

The oil and gas industry is well-established in New Zealand and is of considerable economic value. The economic benefit to New Zealand of this industry includes the payment of royalties and taxes, capital investment, employment, and technology and innovation transfers.

Oil is New Zealand's fourth largest export earner, and figures from MBIE suggest that the resource potential – both on land and offshore – is such that New Zealand could become a net exporter of oil by 2030. Oil and gas production is primarily concentrated in the Taranaki Basin, but offshore exploratory drilling has taken place in the Great South Basin, Canterbury Basin and East Coast Basin. Outside the Taranaki Basin the oil and gas potential of New Zealand is under-explored by international standards.

Gas is also a vital energy source for New Zealand businesses and households. There is a significant gas network in the North Island, and many businesses and households rely on gas from offshore fields for their energy needs. Gas is also used to generate electricity, and it plays an important role in complementing hydro and wind generation to ensure security of supply and affordable energy.



Figure 2: New Zealand's oil and gas basins

Source: Ministry of Economic Development (2010)

#### Likely impacts of exploratory drilling

Exploratory drilling for oil and gas has been treated differently to other activities during the development of EEZ regulations due to the unique characteristics and risk profile of exploratory drilling.

Some activities associated with the exploratory phase of oil and gas activities have very minimal impacts on the environment. The general activity of exploration for oil and gas has been classified as *permitted* in regulations under the EEZ Act (except for the actual drilling for oil and gas). This activity may include component activities such as seismic surveying, the placement of structures on the seafloor (including the rig and well head), and the use of anchors and mooring arrays. These activities are subject to conditions set in regulations, but operators will not require a marine consent in order to proceed with these activities.

However, the effects of drilling a well require greater regulatory oversight because of the potential impacts of an oil spill due to loss of well control. Such an event has a low probability but a high potential impact on the environment and existing interests. As a mature industry, the routine effects of exploratory drilling are generally well understood. However, their impact can vary significantly depending on site conditions, such as seabed depth and the benthic environment, and choices of technology and drilling techniques.

The routine operational effects include:

- direct impacts on the seabed from drilling exploration/appraisal wells and associated structures, and potential ecotoxic effects of the discharge of production water
- marine mammal interactions with facilities
- cumulative effects on the seabed from multiple exploration wells.

Existing interests that may be affected by exploratory drilling include shipping, fishing, submarine cabling, marine scientific research, defence force activities, mineral operations and tourism. The impact of exploratory drilling mainly relates to excluding these activities from the area where the exploratory drilling is taking place and the potential economic effects of an oil spill.

There are discharges associated with exploratory drilling operations, and operators are currently required to have a discharge management plan approved by MNZ. As previously stated, the ML Bill transfers the regulation of these discharges from the MTA to the EEZ Act, and section 2.3 (below) seeks feedback on the classification of these discharges under the EEZ Act.

Once the regulation of these discharges has been transferred to the EEZ Act operators would be required to submit details of the discharges associated with their exploratory drilling operations to the EPA in order to gain a marine consent (if they are classified *non-notified discretionary* or *discretionary*). In order for applicants to proceed with their operation, they will need to have marine consents issued by the EPA for the overall activity and for any discharges associated with it that are classified *non-notified discretionary* or *discretionary*.

A full description of the process involved in exploratory drilling operations, from the pre-drilling preparation and assessment to discovery appraisal, is included in Appendix E.

#### The need for application-specific assessment

There is limited knowledge about the nature of the environment in many areas of the EEZ and continental shelf so an assessment is appropriate on a case-by-case basis for exploratory drilling operations. Such an assessment is a key component of the marine consent process required for any activity classified *non-notified discretionary* or *discretionary*.

Exploratory drilling activities generally last on average 30 to 40 days. Limited worldwide supply of drill ships and supply vessels, and the need to have investment decisions and contracts in place many months in advance of an activity, make investment certainty important. Given the multiple approvals that operators must secure from regulators in New Zealand, streamlined, yet robust, regulatory processes are crucial.

These characteristics, especially the time-critical nature of the activity, put a premium on a predictable timeframe for a process but also mean that appropriate consideration needs to be given to the environmental impacts of the proposed activity.

#### 2.2.2 Discretionary consent process: the default classification

The *discretionary* classification is the default classification for activities that fall under the EEZ Act. It requires operators to obtain a marine consent from the EPA before they can undertake the activity. This involves preparing an application, which must include an impact assessment and a nationally notified public process, with the ability for the public to make submissions, present at a hearing and appeal decisions. The statutory timeframes for the process add up to 140 working days, excluding possible appeals. The EPA has the discretion to extend the statutory timeframe in order to ensure it has all the information it requires.

Industry estimates for the costs of an application are \$100,000 to \$500,000 for the preparation of the application, including the environmental impact assessment. The EPA has estimated the likely costs to assess an application, including the cost of administering the public hearing, to be \$250,000 to \$1,500,000. These costs are mostly recovered from the applicant.

Currently no regulations have been made to classify exploratory drilling in the EEZ and continental shelf and this default option will apply. The Government considers that close regulatory oversight is required for exploratory drilling. Therefore a marine consent process for applications that involves EPA discretion is required. However, the cost to applicants and likely impact on investor certainty of the *discretionary* consenting process are disproportionate, given the nature of exploratory drilling and its likely impacts.

#### 2.2.3 Proposed approach for exploratory drilling

The Government proposes a *non-notified discretionary* classification for exploratory drilling for oil and gas, because it best fulfils the objectives outlined in section 2.1. This classification means:

- an application for a consent must be sought, and the EPA has the discretion to approve or decline the application
- the application must include an impact assessment which describes the effects of the activity on the environment and existing interests
- the process has statutory timeframes which add up to 60 working days, within which the EPA must issue a decision, unless the timeframe is extended in accordance with the provisions in EEZ Act.

This option aligns with international practice familiar to operators for environmental assessments and provides the level of both regulatory oversight and process certainty necessary to ensure the responsible development of New Zealand's oil and gas resources in the EEZ and continental shelf.

The greater process certainty will help to foster investor confidence in the regulatory regime. Additionally, full EPA assessment of proposed operations – with the discretion to grant or decline applications – will help to foster confidence in the regime's effectiveness at managing the impacts of exploratory drilling on the environment and existing interests. The lower cost of this option, which the EPA estimates will be between \$100,000 and \$450,000 as compared to \$250,000 to \$1,500,000 for a *discretionary* application, will also help to encourage greater investment in exploratory drilling activities in New Zealand's EEZ and continental shelf.

	Table 3: An assessment against the objectives of the non-notified discretionary classification for exploratory drilling				
0	Objectives: to ensure that the Assessment of preferred option regulations:				
a.	fulfil New Zealand's international obligations under relevant conventions relating to the marine environment	• The preferred option meets all of New Zealand's relevant international obligations, including UNCLOS, the Noumea Convention and the Convention on Biological Diversity.			
b.	provide for protection of the environment in the EEZ and continental shelf	<ul> <li>The EPA retains discretion as to whether an exploratory drilling application should be approved, based on the effects on the environment and existing interests at the proposed location, and can impose conditions.</li> <li>The EPA can seek expert advice about the effects on the environment reducition is together to be interest.</li> </ul>			
		<ul><li>and existing interests to inform its decision.</li><li>The EPA may extend the timeframe to achieve an adequate assessment of the potential effects of a proposal.</li></ul>			
с.	enable economic activity of benefit to operators and the New Zealand economy	• The statutory timeframes add up to 60 working days and greater regulatory alignment between the EEZ, MTA and Health and Safety in Employment (Petroleum Exploration and Extraction) Regulations 2013 regimes provides increased investment certainty (regarding processes and timeframes) for oil and gas operators and improves the attractiveness of New Zealand as an investment opportunity.			
		• The preferred option provides for more consistent alignment with the regulatory regimes enforced by MBIE and MNZ, which manage the risks associated with an oil spill.			
d.	are cost effective, with the cost to government and operators proportionate to the level of environmental effects addressed	<ul> <li>The operator is required to undertake the same level of assessment of environmental effects as per requirements under the discretionary classification.</li> <li>The financial and time costs to the applicant and the EPA are reduced because there is no public notification or hearing process.</li> </ul>			
e.	provide for consideration of non-environmental impacts, including existing interests, iwi and other matters set out in the EEZ Act, in a manner proportionate to the scale and effects of activities.	<ul> <li>Operators are required to describe the engagement with existing interests and iwi, as for the discretionary classification.</li> <li>The same decision-making criteria apply when the EPA assesses the impacts of an activity on the environment and existing interests for non-notified discretionary applications as apply to discretionary applications.</li> </ul>			

Appendix F sets out a fuller assessment of the alternative options for classifying exploratory drilling.

#### Outcome 2.2.4

Overall, the Government considers that the non-notified discretionary process provides an appropriate balance between the assessment and management of environmental effects on the one hand, and increased investor certainty in the timeframes and process on the other. This improves the attractiveness of New Zealand as an investment opportunity for this global industry while ensuring there is appropriate regulatory oversight of exploratory drilling activities in the EEZ and continental shelf.

If exploration were to result in oil and/or gas discoveries that can be produced, operators will be required to go through a *discretionary* process before moving into the production phase, with full public notification and the ability for members of the public to make submissions on the application. Successful production operations will result in increased tax and royalty revenue for the Crown, and community and regional benefits such as job creation.

#### **Question 1**

- (a) Do you agree with the proposal that exploratory drilling for oil and gas be classified as non-notified discretionary? If not, how should the activity be classified or regulated?
- (b) Are there any issues that have not been considered?

## 2.3 Discharges and dumping

#### 2.3.1 Context

The ML Bill transfers the responsibility for managing dumping and certain discharge activities from the MTA to the EEZ Act (see section 1.3.2 above). The transfer of regulatory functions does not take effect until the ML Bill has been enacted and regulations classifying the activities are promulgated.<sup>9</sup> Until that time, the requirements under the MTA remain in force.

As part of the transfer of regulatory responsibilities, the term 'harmful substances' will be defined in regulations under the EEZ Act. The Government is therefore seeking feedback on:

- (i) the definition of 'harmful substances'
- (ii) what classification the discharge and dumping activities should have under the EEZ Act to ensure an appropriate balance between the different objectives set out in section 2.1.

The following characteristics of discharges and dumping activities and the existing regulatory regime are relevant to determining the appropriate activity classification under the EEZ regime:

- These activities are already regulated (except for discharges from mineral exploration operations). The purpose of the transfer of regulatory responsibility by the ML Bill is to improve the efficiency of the overall management regime. No significant problems have been identified with the existing MTA regime, and operators are familiar with their obligations under it.
- A number of the discharges and dumping activities are subject to obligations under international law which seek to manage environmental effects. Domestic regulation needs to be consistent with these obligations.
- Discharge activities are usually part of a broader marine operation such as oil and gas drilling activities. The activities therefore face similar time constraints (in terms of the responsiveness of the regulatory regime) as the broader activity to provide the necessary certainty of process for investors.
- Dumping and discharge applications are made only rarely though some applications (particularly for new activities or locations) require significant work to process and administer. On average, MNZ receives two or three dumping applications annually. The applications are generally to dump dredged spoil, and occasionally to dump a derelict ship. In an average year there are two discharge management plan applications for offshore petroleum

<sup>&</sup>lt;sup>9</sup> This is done by the Governor-General by Order in Council.

installations. The seven current producing installations (off the Taranaki Coast) have five plans between them, which must be reviewed every three years. Annually there are around 15 applications for modifications to existing approved discharge management plans, mostly seeking approval for new ecotoxic chemicals.

The effects of discharges, unless managed, may be as follows:

- *Oil discharges* can coat mammals, seabirds, fish, etc. This coating, along with ingestion, may have toxic effects.
- *Chemical discharges* may have acute toxic effects on organisms, mammals seabirds and fish etc.
- Tailings from mining may smother the seabed and harm benthic<sup>10</sup> communities, and can affect the water column and its inhabitants. For example, fine particles can clog fish gills.

Dumping activities will most likely affect the seabed through crushing the benthos and any resulting sediment plumes. Dumping of waste such as dredged spoil will have similar effects to the disposal of tailings in terms of smothering the benthic environment, effects on the water column and potential introduction of contaminants.

The Government therefore considers the classification that is adopted for each of the activities needs to ensure appropriate environmental protection while supporting economic activity with a process that is proportionate in its costs to operators and the EPA.

#### Question 2

Has section 2.3.1 correctly described the key issues related to discharges and dumping?

#### 2.3.2 Proposed approach for discharges and dumping

The proposed package of measures ensures that New Zealand continues to meet its international obligations related to discharges and dumping. It also seeks to reflect the existing balance between environmental protection, economic activity and cost that is found under the MTA, to the extent this is consistent and appropriate within the EEZ Act.

#### Definition of 'harmful substances'

The term 'harmful substances' is a key definition in the regulatory regime because it is only the discharge of *harmful* substances – as opposed to other kinds of substances – that will be regulated by the EEZ Act. The MTA defines a 'harmful substance' through the Marine Protection Rules (the Rules). The Rules define a 'harmful substance' as:

a substance which is ecotoxic to aquatic organisms and considered hazardous for the purposes of the Hazardous Substances (Minimum Degrees of Hazard) Regulations  $2001^{11}$  and oil.<sup>12</sup>

In addition, 'garbage' is defined as constituting a harmful substance for the relevant part of the Rules.<sup>13</sup> However, sediments and/ or tailings from mineral operations are not currently regulated by the Rules.

<sup>&</sup>lt;sup>10</sup> The community of organisms which live on, in, or near the seabed.

<sup>&</sup>lt;sup>11</sup> These regulations are made under the Hazardous Substances and New Organisms Act 1996.

<sup>&</sup>lt;sup>12</sup> Part 200 of the Marine Protection Rules.

<sup>&</sup>lt;sup>13</sup> Part 170 of the Marine Protection Rules.

The Government's proposed approach is therefore to build on the existing definition. The proposed definition is:

- (a) a substance which is ecotoxic to aquatic organisms and considered hazardous for the purposes of the Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001, or
- (b) oil, or
- (c) garbage, or
- (d) discharged sediments and/ or tailings from mineral operations.

The current definition under the Rules is established and tested but can be improved to capture a fuller range of environmental effects. Building on the existing definition will provide a high degree of certainty for industry operators and future investors while strengthening the environmental management of activities.

#### **Question 3**

# Do you agree that 'harmful substances' should be defined as in the proposed definition in 2.3.2? If not, how should the term be defined?

#### Proposed permitted activities and conditions

The Government's proposed approach is to classify the activities in Table 4 as *permitted* activities, subject to the conditions. This approach is consistent with New Zealand's relevant obligations under international law and achieves a balance between environmental protection and cost (in terms of financial cost, time and certainty).

Table 4: Proposed permitted activities		
Activity	Conditions	
Discharge of food waste	Conditions to reflect MARPOL Annex V and the existing MTA approach. Conditions that would apply to activities undertaken on installations include the following:	
	• The discharge of garbage into the sea from a controlled offshore installation is <i>prohibited</i> . The only garbage waste that may be discharged is the food waste that has been passed through a comminuter or grinder, and the comminuted or ground food waste is capable of passing through a screen with openings no greater than 25 millimetres.	
	• A garbage management plan must be prepared for offshore installations which describes procedures for minimising and processing garbage and designates the person in charge of carrying out the plan.	
Discharges of offshore processing drainage and displacement water <sup>14</sup>	The oil content must not exceed 50 parts per million (ppm) and averages less than 30 ppm every calendar month. Records of discharge quantities must be produced. Any discharges exceeding this threshold that are necessary for geological, technical or safety reasons would be classified as <i>non-notified discretionary</i> .	

<sup>&</sup>lt;sup>14</sup> Offshore processing drainage: water from hazardous or non-hazardous deck drains but does not include the oily waste from machinery spaces. Offshore processing drainage is oil that seeps or leaks from pipe work and machinery used to process the oil from the reservoir. Displacement water: water displaced from crude oil tanks during oil transfers to or from a tank. This is the oily water that is left after pumping oil from tank to tank on board a floating production, storage and offloading unit.

Discharges of oily waste from	Conditions that reflect MARPOL requirements and the existing MTA regime.
machinery space	• A maximum discharge of 15 ppm when processed by oil-filtering equipment approved by the Director of MNZ. <sup>15</sup>
	• For offshore installations of 10,000 gross tons or more, the oil-filtering equipment must be fitted with an alarm to indicate threshold breaches and have systems to automatically stop discharging.
	• These conditions would not apply if oily waste is either to be taken to shore or will not to be discharged.
	• Discharges over 15 ppm would be <i>prohibited</i> . Any oil or oily mixtures that cannot be discharged in compliance with these conditions must be ether retained on board, offloaded as produced oil, or discharged to a reception facility.
Discharges of sediments and/ or tailings from mineral operations during	Monitoring and reporting requirements that are conditions of the Permitted Activity Regulations 2013 will apply to the broader <i>permitted</i> activity of which this discharge is part.
prospecting and exploration	Note that further information is being sought to determine whether specific conditions might be necessary to manage the effects of discharges of sediments from mineral operations during the exploratory phase.
	Possible conditions for management could include a requirement that sediments are disposed as close as possible to the original points of extraction.
Burial at sea <sup>16</sup>	The EPA issues a certificate of compliance that meets New Zealand's international obligations. The applicant must provide the EPA with:
	copies of a death certificate
	• an operator's certificate demonstrating appropriate carriage of the remains
	• evidence that the casket or other containment is suitable for burial at sea
	• evidence, post-burial, that the disposal took place in accordance with the conditions of the certificate.
	Currently burials at sea can only be undertaken at five locations in the EEZ around New Zealand. These locations are dumping grounds for explosives, and fishing and anchoring is prohibited. It is proposed that these locations be set in regulations as the only places at which burials at sea can take place. The locations are as follows:
	• within a circle of four nautical miles centred on position 34° 40' S 174° 50' E (38 nautical miles northeast of Cape Brett)
	<ul> <li>within a circle of four nautical miles radius centred on position 36° 28' S 176° 20' E (27 nautical miles east of Cuvier Island)</li> </ul>
	<ul> <li>within a circle of four nautical miles radius centred on position 41° 44' S 175° 01' E (30 nautical miles south of Wellington)</li> </ul>
	<ul> <li>within a circle of four nautical miles radius centred on position 43° 15' S 174° 00' E (55 nautical miles northeast of Lyttelton)</li> </ul>
	<ul> <li>within a circle of four nautical miles radius centred on position 46° S 171° 13' E (25 nautical miles southeast of Otago Harbour).</li> </ul>
	It is proposed that the EPA notify relevant iwi of the date and location of burials at sea as soon as practicable following the issuance of a certificate of compliance.
	The scattering of human ashes is exempted from burial at sea regulations. <sup>17</sup>

<sup>&</sup>lt;sup>15</sup> MNZ will retain responsibility for issuing International Oil Pollution Prevention certificates.

<sup>&</sup>lt;sup>16</sup> 'Burial at sea' is the disposal of human remains in the ocean. It constitutes dumping for the purposes of the London Protocol.

<sup>&</sup>lt;sup>17</sup> Clause 96 of the ML Bill, New Section 24H.

#### **Question 4**

Do you agree that the activities set out in Table 4 should be classified as *permitted* and regulated with these conditions? If not, how else could they be classified or regulated?

#### Proposed non-notified discretionary activities

The Government's preferred option is to classify the following activities as non-notified discretionary activities.

Table 5: Proposed non-notified discretionary activities		
Discharge activities	• Offshore processing drainage and displacement water discharges exceeding the permitted thresholds set out in Table 4 above that are necessary for geological, technical or safety reasons	
	Production water discharges <sup>18</sup>	
	Operational chemical discharges	
	• Discharges of drilling fluids from oil and gas operations during the exploratory stage.	
Dumping activities	• Candidate wastes under Annex 1 of the London Protocol <sup>19</sup> except for dumping of structures during the decommissioning of oil and gas production structures.	

The *non-notified discretionary* activity classification allows for a case-by-base assessment of each proposal in terms of the environmental sensitivity of the location and oceanographic conditions and allows for adaptive management. If the EPA approves an application for a *non-notified discretionary* activity, the marine consent will include application-specific conditions, including monitoring and reporting requirements.

This approach is consistent with New Zealand's relevant obligations under international law and achieves a proportionate balance between environmental protection and cost (in terms of financial cost, time and certainty of process). It also broadly reflects the existing regulatory approach under the MTA.

#### **Question 5**

Do you agree that the activities set out in Table 5 should be classified as *non-notified discretionary*? If not, how else could they be classified or regulated?

<sup>&</sup>lt;sup>18</sup> This refers to any water extracted from the reservoir (i.e. water that comes out of the ground mixed with the oil).

<sup>&</sup>lt;sup>19</sup> The following wastes or other matter can be considered for dumping: dredged material; sewage sludge; fish waste, or material resulting from industrial fish-processing operations; vessels and platforms or other man-made structures at sea; inert, inorganic geological material; organic material of natural origin; bulky items comprising iron, steel, concrete and similarly unharmful materials for which the concern is physical impact; carbon dioxide stream from carbon dioxide capture processes for sequestration.

	Table 6: Proposed discretionary activities
Discharge activities	Discharges of sediments and/ or tailings from mineral operations and discharges of drilling fluids from oil and gas drilling during the production stage.
Dumping activities	Dumping of structures or parts of structures during decommissioning of oil and gas production structures.

#### **Question 6**

# Do you agree that the activities set out in Table 6 should be classified as *discretionary*? If not, how else could they be classified or regulated?

#### **Proposed prohibited activities**

The Government's preferred option is to classify the following activities as prohibited.

Table 7: Proposed prohibited activities – as required by international obligations	
Discharge activities	<ul> <li>Discharges of garbage other than set out in Annex V of the MARPOL convention or not in compliance with conditions set out in that convention</li> <li>Discharges of oily waste from machinery space beyond thresholds set out in Annex I of the MARPOL convention</li> </ul>
Dumping activities	• Dumping of wastes other than those allowed for dumping in the London Protocol.

## 2.3.3 Assessment of discharge and dumping package

Table 8: An assessment against the objectives of the preferred package of options for classifying         discharge and dumping activities		
Objectives: to ensure that the regulations:	Assessment of preferred package of options	
a. fulfil New Zealand's obligations under relevant conventions relating to the marine environment	• The preferred package meets all of New Zealand's relevant international obligations, including MARPOL and the London Protocol.	
b. provide for protection of the environment in the EEZ and continental shelf while enabling economic activity of benefit to operators and the New Zealand economy	<ul> <li>The EPA retains discretion as to whether activities classified as non-notified should be approved, based on the effects on the environment and existing interests in the proposed activity location.</li> <li>The EPA can seek expert advice, including from iwi, on the effects on the environment, iwi and existing interests in order to inform its decision. Application-specific conditions can be placed on the consent.</li> <li>Conditions and prohibitions are consistent with international obligations and existing standards that are designed to protect the environment.</li> <li>The preferred package provides for consistent alignment with the MBIE and MNZ regulatory regimes that manage the risks associated with an oil spill.</li> </ul>	
c. are cost effective, with the cost to government and operators proportionate to the level of environmental effects addressed	<ul> <li>Alignment with the existing regime under the MTA reduces uncertainty for operators.</li> <li>The statutory timeframes adding up to 60 working days for non-notified discretionary discharges and dumping aligns with the proposed activity classification for oil and gas exploration.</li> <li>Standard conditions for permitted activities and greater regulatory alignment between the EEZ, MBIE and MNZ regimes provide increased investment certainty for operators and improve the attractiveness of New Zealand as an investment opportunity.</li> </ul>	
d. provide for consideration of non-environmental impacts, including existing interests, iwi and other matters set out in the EEZ Act, in a manner proportionate to the scale and effects of activities	<ul> <li>The operator is required to undertake the same level of assessment of environmental effects as for the discretionary classification.</li> <li>Efficiency objectives are delivered through transferring regulations from the MTA regime to the EEZ Act.</li> <li>Appeals for parties other than the applicant are not provided for, recognising the proportionality of regulatory process/costs to likely effects.</li> <li>Operators must identify existing interests and describe any consultation in the impact assessment.</li> </ul>	

#### 2.3.4 Outcome

Overall, the Government considers this package of proposals for discharges and dumping provides an appropriate balance between the assessment and management of environmental effects, and increased investor certainty in the timeframes and processes, at reasonable cost. The proposals also satisfy New Zealand's relevant obligations under international law, and they are likely to be easily understood by industry and other stakeholders, which will reduce the transitional costs associated with the transfer of regulatory functions.

## 2.4 Implementing the proposed package of regulations

#### 2.4.1 What the proposed package could cost

The EPA will face administrative costs resulting from these proposals which are mainly recovered by the operator. The process is new, so costs can only be estimated at this stage but are expected to be approximately \$100,000 to \$450,000 for the EPA to process a *non-notified discretionary* marine consent. This compares to estimated costs of \$250,000 to \$1,500,000 per application for a *discretionary* marine consent.

Monitoring and reporting costs will be in addition, however, given the newness of the regime and that these will be specific to each consent it is not possible to estimate costs at this time.

The implementation of the ML Bill's transfer of regulatory responsibility for discharges and dumping is expected to improve the efficiency of the overall process for operators and the EPA as regulator. The number of applications is expected to be low because there is only limited activity currently undertaken and planned for the immediate future in the EEZ, although activity is expected to increase as technology develops and activity costs reduce.

#### 2.4.2 Expected impact of the proposed package of regulations

The Government anticipates the proposed package of reforms will provide increased confidence for investors and will ensure environmental protection for the EEZ and continental shelf. The effects on the environment from the proposed package are likely to be able to be avoided, remedied or mitigated.

- The non-notified discretionary proposal for oil and gas exploration requires a full impact assessment to be submitted as part of the application process, and the EPA has the discretion to allow or decline applications within the sustainable management purpose of the EEZ Act. An adaptive management approach can also be adopted and conditions imposed on activities where this is appropriate to avoid, remedy or mitigate any adverse effects of activities on the environment or existing interests.
- The implementation of the transfer of regulatory provisions for discharges and dumping will enable the EPA to carry out a more thorough assessment of the cumulative impacts of an activity as a whole.

The impact on existing interests is expected to be low. There is limited existing activity in the EEZ and continental shelf that might be affected. For activities proposed as *permitted*, the impacts on both the environment and existing interests are likely to be either minor or less than significant. For activities proposed as *non-notified discretionary*, the marine consent process requires applicants to identify existing interests and describe any consultation. The EPA can seek information from those interests when deciding whether to approve an application.

#### 2.4.3 Timeframes for implementation of the regulations

Following consultation, officials will analyse submissions and feedback from relevant iwi and other relevant parties where appropriate. Cabinet will then make a decision on whether to proceed with the proposed activity classifications or revise the proposals. Regulations cannot be made to classify activities as *non-notified discretionary* until the new activity classification is included in the EEZ Act through enactment of the ML Bill. Also, regulations to classify discharge and dumping activities in the EEZ Act cannot be made until the ML Bill passes.

The proposed timeline for the proposed regulatory reforms can be found in Appendix B.

#### 2.4.4 Transitional provisions

#### **Exploratory drilling**

The EEZ Act includes transitional provisions for exploratory drilling for oil and gas to ensure that existing or planned activities are not adversely affected. These transitional provisions allow time for exploratory drilling operators to carry out existing or planned activities for a specified period before EEZ Act requirements apply. The transitional provisions vary according to the type of permit or licence held by the operator or the stage of the activity.

No existing exploratory drilling operations were underway in the EEZ or continental shelf when the EEZ Act came into force on 28 June 2013, when the EEZ Act came into force.

Operators planning to commence exploratory drilling activities within 12 months following the EEZ Act coming into force must prepare, and provide to the EPA, an impact assessment for the activity before they start. Under this transitional arrangement, the operator may continue to operate without a marine consent until 27 June 2014. After 27 June 2014, the operator will either need to have a marine consent to continue/commence operating, or have applied for a marine consent by this date to continue operating.

The following transitional arrangements will apply if exploratory drilling is reclassified as *non-notified discretionary*.

- An application lodged with the EPA will progress under the classification of the regulations that apply on the day that it is lodged.
- Therefore, *discretionary* applications that are under consideration by the EPA prior to a subsequent set of regulations coming into force that change the activity to *non-notified discretionary* will continue to be assessed as *discretionary*, and vice versa for any activities that may change from *non-notified discretionary* to *discretionary* in the future.
- An applicant who chooses to withdraw an application that was submitted under a classification that has since changed, and then submits a new application, will have their application assessed under the classification of the day the new application is lodged.

Table 9: Transitional provisions for discharge and dumping activities for transferred discharge and dumping activities		
Status of permit, plan or application	Process that will apply	
Current discharge management plan or dumping permit	<ul> <li>Will be deemed to be marine discharge and marine dumping consents under the EEZ Act</li> <li>Will be subject to the EPA's monitoring and enforcement obligations under the EEZ Act.</li> </ul>	
Applications made to MNZ for a discharge management plan or dumping permit <i>before</i> the discharge and dumping regulations are in force	<ul> <li>Will be considered and decided upon under the MTA</li> <li>Aspects transferred by the ML Bill will be deemed to be marine discharge and/or marine dumping consents under the EEZ Act</li> <li>Will be subject to the EPA's monitoring and enforcement under the EEZ Act.</li> </ul>	
Applications for a discharge management plan or dumping permit <i>after</i> EEZ regulations are in force	<ul> <li>Will be considered and decided upon by the EPA under the new regime</li> <li>Will be subject to the EPA's monitoring and enforcement under the EEZ Act.</li> </ul>	

#### Discharge and dumping activities

Any legal proceedings that relate to the affected part of a permit or consent will be subject to the law that was in force when the action that gave rise to the proceedings occurred.

In accordance with section 165 of the EEZ Act, any mineral prospecting and exploration activities with a Continental Shelf license that was granted before the EEZ Act came into force may commence and continue without a marine consent for the term of the licence.

#### 2.4.5 Review of regulations

In December 2012 the Government agreed to a formal review of the Permitted Activity Regulations made under the EEZ Act after they have been in force for five years, when more information about the EEZ has been gathered.

# **Consultation process**

### How to make a submission

The Government welcomes your feedback on this discussion document. Anyone can make a submission.

The questions provided below are intended to guide your feedback on the issues and proposed package of reforms. They have been collated from throughout the document. You may answer some or all of the questions. The Government would like to hear whether there are alternative options you think would better implement the EEZ regime for exploratory drilling, discharges and dumping.

To ensure your point of view is clearly understood, you should explain your rationale and provide supporting evidence where appropriate.

Please note this discussion document is not intended to revisit the matters that were considered in *Managing Our Oceans*, except for exploratory drilling for oil and gas. The consultation on those matters has closed.

Please include the following information with your submission:

- 1. your name, email address, phone number and postal address
- 2. the title of the discussion document you are making the submission about
- 3. your submission, with reasons for your views
- 4. any further information you wish the Minister for the Environment to consider.

You must send your submission to the Ministry for the Environment either by:

- emailing it to <u>EEZregulations@mfe.govt.nz</u>, or
- posting it to:

Submission on proposed EEZ regulations 2013

Ministry for the Environment

PO Box 10362

Wellington 6143.

#### Submissions are due by 5.00 pm, 25 September 2013

Note that your submission is public information and will be subject to release under the Official Information Act 1982. Submissions may be made publicly available through the Ministry's website.

After receiving submissions the Ministry will evaluate them and may, where necessary, seek further comments. After this, policy recommendations will be developed for the Minister, and then Cabinet, to consider.

## Questions to guide feedback on the proposed package

1. (a) Do you agree with the proposal exploratory drilling for oil and gas be classified as non-notified discretionary? If not, how should the activity be classified or regulated?

(b) Are there any issues that you think have not been considered?

2. Has section 2.3.1 correctly described the key issues related to discharges and dumping?

3. Do you agree that 'harmful substances' should be defined as in the proposed definition in 2.3.2? If not, how should the term be defined?

4. Do you agree that the activities set out in Table 4 should be classified as *permitted* activities and regulated with these conditions? If not, how else could they be classified or regulated?

5. Do you agree that the activities set out in Table 5 should be classified as *non-notified discretionary*? If not, how else could they be classified or regulated?

6. Do you agree that the activities set out in Table 6 should be classified as *discretionary*? If not, how else could they be classified or regulated?

# Appendices

- Appendix A: Processes involved in the different classifications
- Appendix B: Proposed timeline of exploratory drilling, discharge and dumping regulatory reforms
- Appendix C: Regulatory regime and international framework for exploratory drilling for oil and gas in New Zealand's EEZ and continental shelf
- Appendix D: Section 33 of the EEZ Act: Matters to be considered for regulations
- Appendix E: Exploratory drilling and discovery appraisal: the process
- Appendix F: Classification options for exploratory drilling for oil and gas assessed against the EEZ Act objectives

## Appendix A: Processes involved in the different classifications

Non-Notified Discretionary Marine Consent Process


#### **Discretionary Marine Consent Process**



#### Appendix B: Proposed timeline of exploratory drilling, discharge and dumping regulatory reforms



### Appendix C: Regulatory regime and international framework for exploratory drilling for oil and gas in New Zealand's EEZ and continental shelf

A number of different regulatory regimes apply to offshore exploratory drilling for oil and gas in NZ.

	Table A1: New	Zealand's regu	latory regime for	• exploratory drilling
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Permit/approval	Legislation	Decision-maker
• Permit required before commencing any prospecting for oil and gas in a given location	Crown Minerals Act 1991	Minister of Energy and Resources
<ul> <li>Certificate of Fitness required for installations and necessary equipment<sup>20</sup></li> <li>Submit a safety case at least 90 days before operations commence<sup>21</sup></li> <li>Submit a well operations notice at least 21 days before the commencement of any well drilling, completion, suspension and abandonment operation<sup>22</sup></li> </ul>	Health and Safety in Employment (Petroleum Exploration and Extraction) Regulations 2013	MBIE
<ul> <li>Discharge management plans (including oil spill contingency planning)<sup>23</sup></li> <li>Disposal of waste – applies to the abandonment and dumping of items associated with oil and gas facilities</li> <li>Note: this discussion document seeks feedback on the classification of certain discharge and dumping activities under the EEZ Act as they are being transferred to the EEZ Act from the MTA (Oil spill contingency planning will remain with MNZ.)</li> </ul>	Maritime Transport Act 1994	MNZ

Operators are also required to take into account the Wildlife Act 1953, which lists what marine species in Schedule 7A are absolutely protected, and the Marine Mammals Protection Act 1978, under which it is an offence to harass or disturb marine mammals.

<sup>&</sup>lt;sup>20</sup> The duty holder must ensure that an installation is not operated without a current Certificate of Fitness issued by an inspection body. The duty holder must provide the Certificate of Fitness to the Secretary at least 30 days before the commencement of operation of the installation.

<sup>&</sup>lt;sup>21</sup> The safety case is a document prepared by the duty holder of an installation that identifies any hazards having the potential to cause multiple fatalities of persons on or near the installation (major accident hazards); describes how the hazards are, or will be, controlled; and describes the safety management system in place to ensure that the controls are effectively and consistently applied. It must include a description of the well control equipment and arrangements that will be used to control pressure in the well and prevent the uncontrolled release of petroleum.

 $<sup>^{22}</sup>$  The primary purpose of the well operations notice is to complement the safety case. The notice provides site-specific information to demonstrate to the regulator how risks specific to the well are being managed. It must also include verification by an independent and competent person that the well design and the procedures to be used are fit for purpose.

<sup>&</sup>lt;sup>23</sup> The MTA will continue to regulate marine oil spill contingency planning, preparedness and response, and discharges from ships. MNZ is responsible for these functions. They are not being transferred to the EEZ Act.

#### International framework for exploratory drilling

A *non-notified discretionary* or *discretionary* classification under the EEZ Act satisfies all of New Zealand's international obligations.

Under the United Nations Convention on the Law of the Sea (UNCLOS), coastal states have the sovereign right to explore and exploit the natural resources in their EEZ<sup>24</sup> and continental shelf,<sup>25</sup> as well as an obligation to protect and preserve the marine environment.<sup>26</sup> Other states have the right to undertake various activities, including marine scientific research and the laying of submarine cables in New Zealand's EEZ and continental shelf. While exercising rights in the EEZ, New Zealand must be mindful that the rights of other states are not unreasonably restricted.

The Convention for the Protection of the Natural Resources and Environment of the South Pacific Region (Noumea Convention) provides for states to assess the potential effects of major projects that might affect the marine environment and to invite public comment on assessments of major projects where appropriate.<sup>27</sup> The Convention on Biological Diversity provides for appropriate environmental impact assessment procedures to be established for projects that are likely to have "significant adverse effects on biological diversity" with a view to avoiding or minimising such effects and, where appropriate, allowing for public participation in such procedures.<sup>28</sup>

<sup>&</sup>lt;sup>24</sup> Article 56, United Nations Convention on the Law of the Sea

<sup>&</sup>lt;sup>25</sup> Article 77, United Nations Convention on the Law of the Sea

<sup>&</sup>lt;sup>26</sup> Article 192, United Nations Convention on the Law of the Sea

<sup>&</sup>lt;sup>27</sup> Article 16, Convention for the Protection of Natural Resources and Environment of the South Pacific Region (Noumea Convention)

<sup>&</sup>lt;sup>28</sup> Article 14, Convention on Biological Diversity

### **Appendix D: Section 33 of the EEZ Act: Matters to be considered for regulations**

(1) This section and section 34 apply when the Minister is developing regulations for the purposes of section 27.

- (2) The Minister must have regard to any comments made under section 32(2).<sup>29</sup>
- (3) The Minister must take into account-

(a) any effects on the environment or existing interests of allowing an activity with or without a marine consent, including—

(i) cumulative effects; and

(ii) effects that may occur in New Zealand or in the waters above or beyond the continental shelf beyond the outer limits of the exclusive economic zone; and

(b) the effects on the environment or existing interests of other activities undertaken in the exclusive economic zone or in or on the continental shelf, including—

(i) the effects of activities that are not regulated under this Act; and

(ii) effects that may occur in New Zealand or in the waters above or beyond the continental shelf beyond the outer limits of the exclusive economic zone; and

(c) the effects on human health that may arise from effects on the environment; and

(d) the importance of protecting the biological diversity and integrity of marine species, ecosystems, and processes; and

(e) the importance of protecting rare and vulnerable ecosystems and the habitats of threatened species; and

(f) New Zealand's international obligations; and

(g) the economic benefit to New Zealand of an activity; and

(h) the efficient use and development of natural resources; and

(i) the nature and effect of other marine management regimes; and

(j) best practice in relation to an industry or activity; and

(k) in relation to whether an activity is classified as permitted or discretionary, the desirability of allowing the public to be heard in relation to the activity or type of activity; and

(l) any other relevant matter.

Note that the ML  $Bill^{30}$  states that the Minister shall not take into account paragraphs (c), (g), (h) and (j) in section 33(3) above. This is due to the considerations prescribed by international obligations.

<sup>&</sup>lt;sup>29</sup> Section 32(2) requires the Minister to undertake public consultation when developing or amending regulations under the EEZ Act.

<sup>&</sup>lt;sup>30</sup> Clause 103, new section 34A(3)

## Appendix E: Exploratory drilling and discovery appraisal: the process

#### Exploration

The exploration phase of oil and gas operations has three broad stages:

- pre-drilling preparation and assessment
- exploratory drilling
- discovery appraisal (including drilling of appraisal wells).

There are oil and gas activities that are part of the exploration phase that are classified as *permitted* with conditions under the EEZ Act, and operators do not require a marine consent in order to undertake these activities. They include:

- sea floor sampling
- seismic surveying
- installation of a rig on the seabed, including the use of associated anchors and moorings and the placement of a well head (installation does not include the drilling of a well).

Exploratory drilling activities proposed for classification as *non-notified discretionary* in this document also do not cover the following activities that are associated with the exploration phase of oil and gas operations:

- exploratory oil and gas activities being transferred to the EEZ Act from the MTA (these are discussed in section 2.3 of this document, and some of these will require a separate marine consent):
  - discharges of drilling fluids
  - → abandonment of all equipment, plant and machinery, and the sinking of platforms and equipment (i.e. sea disposal)
- exploratory oil and gas activities regulated by other legislation:
  - surface lights for navigational purposes from vessels (regulated under the MTA)
  - navigational hazards from aerial or towed magnetometer surveys (regulated under the MTA)
  - use of a vessel for carrying out a surveying operation, including using surface lights (regulated for navigation purposes by the MTA)
  - marking of platforms with lights to aid safety of navigation (regulated by the MTA)
  - importation of biofouling (regulated under the Biosecurity Law Reform Act 2012).

#### Pre-drilling preparation and assessment

Once an operator has made a decision to commit to drill an exploration target, they undertake a range of preparatory studies and assessments to assess operational risks (including environmental risks) and to create a plan for operational drilling activities. This information is also relevant for obtaining the necessary regulatory approvals prior to the drilling of an exploration well. Currently approvals must be sought from MBIE and MNZ. The EEZ Act now requires that approval also be gained from the EPA.

Type of study	Purpose
Historical and forecast studies of metocean conditions	To understand the wind, ocean currents and size of waves that may have an impact on drilling operations.
Environmental impact assessment	To assess how the drilling operations might have an impact on marine flora and fauna, and how this can be mitigated
Surface/near-surface site survey	To ensure site safety, the sea floor is scanned to image its bathymetry (sea floor terrain) and collect very high-resolution 2D seismic data in order to understand the near-surface geology and detect the presence of shallow gas. This is to ensure that the rig is securely positioned and to prevent the rig's supporting feet slumping or sliding or the anchors being pulled out because they were placed on a soft or rough surface. It is also relevant for the drilling of the conduit (the very top of the well).
Well trajectory studies	To plan for a well trajectory that aims to intersect the target zone at the best angle and avoid or manage any fracture zones or zones of high pressure. The seismic data is also used to help decide on casing points, cement strengths and appropriate mud weights, which are essential safety measures to control the flow of hydrocarbons.

#### Drilling

If the pre-drilling analysis identifies an area of potential, a well must be drilled to confirm whether the site does have potential for commercial reserves of oil and/or gas. The following steps are undertaken.

- 1. **The rig is safely secured on site** according to the site survey results. The drill rig used for drilling the exploration well is dependent on both the water depth and water conditions. Where wells are in relatively shallow water (up to 120 metres), jack-up rigs are commonly used. These rigs have feet that rest on the sea floor in order to support them and keep them in place. In deeper water, semi-submersible rigs or drill ships are used. These rigs can either use dynamic position systems or anchors and cables/chains to maintain their position.
- 2. **The conduit is drilled** (the very top part of the well). It is cased with steel pipe that is cemented in place and a blowout preventer (BOP) is installed. Both the steel casing and BOP are safety measures to control the flow of hydrocarbons when the well reaches the target zone.
- 3. Before any further drilling is carried out, the **BOP** and conduit casing are tested by pressurising the well with higher-than-expected pressures. If the BOP and conduit pass the tests, then the well is re-entered and the next phase of drilling is initiated.
- 4. **Staged drilling of the hole** to the target zone. During the drilling, the well diameter decreases at set depths (casing points). The decreasing diameter is due to the physical limits of drilling at depth. The casing points are predicted during the well trajectory planning phase and finalised during the drilling according to the geology they encounter. At each casing point the drill bit is pulled out of the well and a steel casing (pipe) is inserted and cemented in place. The well is then pressure tested to ensure the cement and casing are secure.
- 5. **Introduction of drilling mud (otherwise known as fluids):** throughout the drilling operation, drilling mud is introduced to the well. This is an important safety measure to ensure that any pressurised liquids encountered in the rock formation are contained. The drilling mud also cools and lubricates the drill bit and as it returns to the surface carries with it the small rock fragments or chips produced by the drilling. These are separated from the drilling mud and analysed by a geologist to determine the actual geology being drilled and to ensure the trajectory plan predicted the rocks correctly.

When the well reaches the target zone, fluids and gas are collected (if encountered) to evaluate the commercial potential of the zone. The well is also wireline logged; this is a process whereby geophysical tools are lowered down the well to help determine the geology and the presence of hydrocarbons.

#### **Discovery appraisal**

If the well discovers oil and/or gas, the size and ultimate commercial viability of the resource are assessed. This is likely to consist of post-well technical analysis of the discovery well and, in some cases, further seismic surveying (often 3D) will be deemed necessary to further map the target structure, or to identify additional targets in the area.

For almost all offshore discoveries, additional well-drilling operations will be required. These wells will be drilled with the same high levels of safety and environmental considerations as the initial exploration well. One or more of these appraisal wells will also be used to carry out a production test of the reservoir. This helps confirm reservoir size and determine the rate at which the petroleum resource is producible.

Further analysis of the results of the appraisal, alongside consideration of market demand and possible sales price, will ultimately determine if such a discovery is economically viable for production.

If the decision is made to proceed to production, a different phase of regulatory assessment is undertaken. The production phase of oil and gas operations is classified as a *discretionary* activity under the EEZ Act.<sup>31</sup>

<sup>&</sup>lt;sup>31</sup> MBIE provided information on the exploratory drilling and discovery appraisal process.

# Appendix F: Classification options for exploratory drilling for oil and gas assessed against the EEZ Act objectives

The following table assesses each of the *permitted*, *non-notified discretionary*, *discretionary* and *prohibited* classification options for exploratory drilling against the EEZ Act objectives.

Key:  $\checkmark \checkmark$  = performs well against objective;  $\checkmark$  = satisfies objective;  $\sim$  = uncertain;  $\varkappa$  = does not satisfy objective;  $\varkappa \varkappa$  = performs very poorly against objective; N/A = not applicable

#### Table A3: Assessment of options for classifying exploratory drilling

	Permitted	Non-notified discretionary	Discretionary (status quo)	Prohibited
Summary assessment	<ul> <li>Not recommended</li> <li>A lack of discretion for different activities and an inability to have application- specific conditions means environmental protections may be inadequate in some circumstances or disproportionately costly in others.</li> <li>Does not support innovation in technical approaches or adaptive management of effects.</li> <li>Does not allow a precautionary approach, where this might be appropriate.</li> </ul>	<ul> <li>Preferred option</li> <li>Provides the level of regulatory oversight and process certainty necessary to ensure that responsible development of New Zealand's oil and gas resources in the EEZ and continental shelf can be achieved.</li> <li>Application-specific conditions can apply to ensure appropriate environmental protection.</li> <li>Aligns with international practice familiar to operators for similar environmental assessments.</li> </ul>	<ul> <li>Not recommended</li> <li>Although, application-specific conditions can apply to ensure appropriate environmental protection, the timeframes and process do not align with the practical needs of the activity so would place unreasonable constraints on investment.</li> <li>Public participation is disproportionate to the type of the activity.</li> </ul>	<ul> <li>Not recommended</li> <li>A total restriction on economic activity and investment is disproportionate to the likely scale of environmental impact.</li> </ul>
New Zealand fulfils its international obligations	~	$\checkmark\checkmark$	$\checkmark\checkmark$	$\checkmark\checkmark$

	Permitted	Non-notified discretionary	Discretionary (status quo)	Prohibited
Provides for protection of the environment	~*	✓	✓	$\checkmark\checkmark$
Enables economic activity	$\checkmark\checkmark$	$\checkmark$	~	× ×
Cost effective – regulation is proportionate to the level of environmental effects	×	✓	×	××
Non-environmental impacts are provided for in a proportionate manner	××	$\checkmark$	~	N/A

\*Whether a *permitted* classification provides for protection of the environment or not depends on the conditions made in regulations.

### Glossary

**appraisal wells:** wells drilled to carry out a production test of a known oil or gas reservoir (confirmed after exploratory wells are drilled) to determine the size of the reservoir and the rate at which the petroleum resource is extractable.

burial at sea: the lawful disposal of human remains.

**continental shelf:** the seabed and subsoil of the submarine areas that extend beyond the territorial sea throughout the natural prolongation of a state's land territory to the outer edge of the continental margin (the point at which the shelf drops into deeper water).<sup>32</sup>

**discharge:** any release, disposal, spilling, leaking, pumping, emitting or emptying, but excluding *dumping*.

**dumping:** in relation to waste or other matter, its deliberate disposal or storage; and in relation to a ship, an aircraft or a structure, its deliberate disposal or abandonment, excluding those activities associated with the 'normal operations' of ships. The term 'normal operations' can be thought of as referring to routine activities common to all ships

**EPA:** Environmental Protection Authority.

**EEZ:** exclusive economic zone, which UNCLOS defines as the area beyond and adjacent to the territorial sea.<sup>33</sup> It extends from 12 to 200 nautical miles offshore. In this document, capitals are used to refer to New Zealand's Exclusive Economic Zone.

**EEZ Act:** Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act 2012.

existing interests: existing interests as defined in the EEZ Act.<sup>34</sup>

**exploratory wells:** wells that are drilled to confirm whether a site has the potential for commercial reserves of oil and/or gas.

**HSE Regulations:** Health and Safety in Employment (Petroleum Exploration and Extraction) Regulations 2013.

**London Protocol:** the 1996 Protocol to the London Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter 1972.

*Managing Our Oceans*: a discussion document released in May 2012 by the Minister for the Environment on proposals relating to activities under the EEZ Act.

**MARPOL:** International Convention for the Prevention of Pollution from Ships 1973, as modified by the Protocol of 1978.

<sup>&</sup>lt;sup>32</sup> UNCLOS Article 76(1)

<sup>&</sup>lt;sup>33</sup> UNCLOS Article 55

<sup>&</sup>lt;sup>34</sup> EEZ Act interpretation of existing interests: "existing interest means, in relation to New Zealand, the exclusive economic zone, or the continental shelf (as applicable), the interest a person has in—

<sup>(</sup>a) any lawfully established existing activity, whether or not authorised by or under any Act or regulations, including rights of access, navigation, and fishing:

<sup>(</sup>b) any activity that may be undertaken under the authority of an existing marine consent granted under section 62:

<sup>(</sup>c) any activity that may be undertaken under the authority of an existing resource consent granted under the Resource Management Act 1991:

<sup>(</sup>d) the settlement of a historical claim under the Treaty of Waitangi Act 1975:

<sup>(</sup>e) the settlement of a contemporary claim under the Treaty of Waitangi as provided for in an Act, including the Treaty of Waitangi (Fisheries Claims) Settlement Act 1992:

<sup>(</sup>f) a protected customary right or customary marine title recognised under the Marine and Coastal Area (Takutai Moana) Act 2011

MBIE: Ministry of Business, Innovation and Employment.

ML Bill: Marine Legislation Bill.

**MNZ:** Maritime New Zealand.

MTA: Maritime Transport Act 1994.

**nautical mile:** the unit of measurement used in international treaties for territorial waters and exclusive economic zones, equivalent to 1852 metres.

**Noumea Convention:** Convention for the Protection of Natural Resources and Environment of the South Pacific Region.

**Permitted Activity Regulations:** Exclusive Economic Zone and Continental Shelf (Permitted Activities – Environmental Effects) Regulations 2013.

ppm: parts per million.

**production water:** any water extracted from the reservoir; that is, water that comes out of the ground mixed with the oil.

**supplementary order paper:** a mechanism by which amendments can be made to a bill in the House of Representatives.

**Territorial Sea:** the belt of coastal waters extending up to 12 nautical miles from the low-water mark of New Zealand's shoreline; New Zealand has sovereignty over these waters, the airspace above and the seabed below.

the Minister: all references to 'the Minister' in this document refer to the Minister for the Environment.

UNCLOS: United Nations Convention on the Law of the Sea.