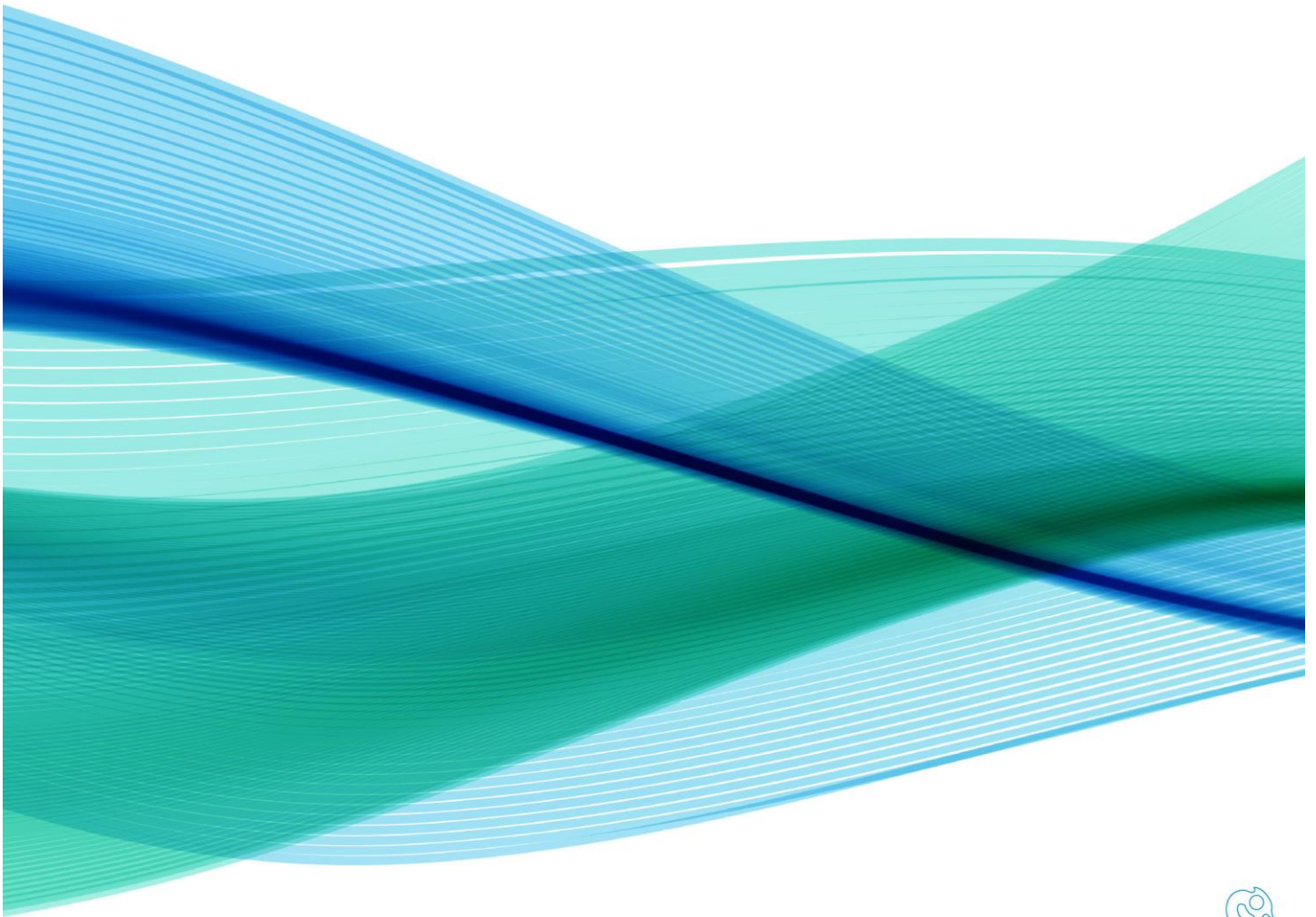


# Review of the Oil Pollution Levy 2015/16

Consultation Document

February 2016





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## Background to the proposals

Maritime New Zealand is a key player in the regulatory, compliance and response framework that is designed to manage the risk of marine oil pollution, and ensure that New Zealand is prepared to respond effectively to any oil spills that occur in the marine environment.

The framework for marine oil spill prevention, preparedness and response activities includes the Maritime Transport Act 1994, the Resource Management Act 1991, the Health and Safety in Employment Act 1992, the Hazardous Substances and New Organisms Act 1996, and the Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act 2012.

Internationally, New Zealand is a signatory to a number of conventions relating to oil spill liability for those operating in the marine environment. New Zealand is also a signatory to the Oil Preparedness, Response and Co-Operation Convention which enables us to call on other signatories to assist in the event of a major marine oil spill.

The cost of oil pollution preparedness is met by operators in the maritime sector either directly or through the Oil Pollution Fund (the Fund). The Fund is financed by the Oil Pollution Levy (the Levy), which is paid by the commercial maritime industry - those who use oil as fuel, transport oil, and the offshore oil industry. These levy contributions enable Maritime New Zealand to operate the Marine Pollution Response Service (MPRS) and to deliver associated regulatory and compliance services.

The previous review was conducted in 2012 and as well as setting the current levy rates also established the principle of a regular three yearly review. This document presents the proposals that are the outcome of the first in this series of regular reviews.

The 2012 review addressed a funding shortfall that was the result of a deliberate decision to spend down the balance of the Fund in the preceding years; it also implemented some additional, limited, capability requirements that were the result of a review of New Zealand's response to the *Rena* incident off the coast of Tauranga in October 2011 and provided a limited amount of capital funding to purchase equipment and material recommended in a 2010/11 review of MPRS. Funding for these additional components (capability and equipment) will expire on 30 June 2016.

Under the Maritime Transport Act (MTA), Maritime New Zealand is required to develop a New Zealand marine oil spill response strategy, and to review it at least every five years. The most recent revision of the strategy is the New Zealand Marine Oil Spill Response Strategy 2015-2019 (the Strategy). The revised Strategy outlines the means by which New Zealand will respond to a marine oil spill using a tiered system, beginning with industry, moving through Regional Council and up to Maritime New Zealand and international partners. Each tier is required to prepare contingency plans and have a response capability.

Maritime New Zealand has developed the Capability Plan for Marine Oil Spill Readiness and Response 2016/17–2018/19 (the Capability Plan) to detail the additional capabilities and equipment that might be considered to support the delivery of the Strategy.

This document includes proposals to provide an overall Levy with two components; a Baseline Levy, with an increase in the baseline from current levels to take into account increases in costs that have occurred since the last review, and a Capability Levy to address capability matters.



## Introduction

This consultation document makes proposals to amend the amount of the Levy collected, in order to, as a minimum, maintain the current levels of regulatory, compliance, readiness and response services (as at 2015/16) in relation to marine oil spills. The additional focus is on delivering the goals of the revised Strategy within the context of updated activity information and risk assessments that underpin the setting of the Levy. As such options are included for a range of capability improvements.

Several pieces of work have provided input into this review of the Levy. These include the Marine Oil Spill Risk Assessment 2015 (MOSRA 15), and the Capability Plan. These have shaped the new levy proposals and provide the basis for the calculations and assumptions made in this discussion document. The revised Strategy also influenced the development of the options presented.

The proposals in this document are made up of:

- **How the Levy is calculated:** This review proposes to use a risk based methodology derived from the data in the MOSRA 15 for determining the contribution of each sector. This is in line with the way the current Levy was apportioned.
- **The financial proposals:** There are two proposed components of a new Levy: Baseline and Capability, with various options presented for the Capability component.
- **Other proposals:** These are matters that Maritime NZ has been asked to consider in the course of conducting this review.

## New Zealand's current marine oil spill response capability

New Zealand requires the capability to effectively manage the likelihood and consequences of a marine oil spill; the capability must be efficient, effective, affordable and proportionate to the risks.

Prevention, through high quality regulation and compliance activities, helps to reduce the likelihood of an oil spill occurring. Adequate readiness and response capabilities ensure an effective response and thus minimise the consequences when a spill occurs.

Current capability is generated through four principal service components:

- the development, maintenance and administration of the *national marine oil spill response strategy, including international cooperation*
- ensuring that *tiered contingency oil spill response plans* are developed and maintained at the national, regional government and operator level to give effect to the strategy, including the development and maintenance of a national training plan for oil spill responders, and the implementation of that plan in accordance with the strategy
- the regular training for and exercising of *contingency response plans* at the national, regional and operator levels
- the *provision of sufficient resources* to effectively implement the strategy and associated contingency plans, including response equipment.

Maritime NZ primarily delivers these services through MPRS with a core team of 8.2 Full Time Equivalent (FTE) staff – covering planning, exercises, training, logistics and operations. In addition there is also significant involvement from policy, legal, environmental and technical specialists across the organisation.

Significant equipment and material stockpiles are held, maintained and supported for use in the event of a marine oil spill. Overall holdings are valued currently at around \$15 million and include stocks of chemical dispersants, booms, skimmers and storage tanks for the protection of shorelines and the on-water collection of oil in sheltered areas, pumping systems, small harbour and estuary vessels,

vehicles, and support systems and equipment such as communications and storage. Much of the equipment is quite old and overall the focus of capability has been on sheltered waters capability and shoreline protection.

MPRS oversees industry and regional and local authorities' preparations for responding to a marine oil spill, and also trains and maintains a National Response Team focused on responding to major national level oil spill events.

Overall the current capability is considered to be effective and efficient for smaller spills and those close to the shore in sheltered waters. However, the equipment and material held by MPRS on behalf of New Zealand is aging rapidly, with much of it at or beyond the end of its useful life. In earlier years policy decisions resulted in the use of cash reserves to fund routine operational activity rather than to build up large reserves for future purchases. As such, insufficient funds are available to pay for the required equipment and materials to maintain the current level of capability.

## **The need for increased capability**

The revised Strategy takes into full account the lessons from the *Rena* incident and response, international marine oil spill incidents, trends in shipping, and the ageing response assets that are due for replacement from 2016 onwards.

The Strategy identifies a need to change the size, type and distribution of oil spill response assets to enable Maritime NZ to more effectively respond to the size and type of marine oil spill incident that is likely to occur. The following steps need to be made:

- The current ability to respond to incidents occurring further out to sea is low, but the consequence of these events would be high. Capability for this type of incident needs to be increased with different response equipment from that currently held;
- Greater emphasis needs to be given to an effective and efficient response for larger, national level, spill incidents (Tier 3) due to the consequences of these spills - economic and environmental damage;
- Taken together these factors require improved or different equipment, as well as enhanced training and exercising of response personnel.

The Capability Plan addresses the issues identified in the Strategy and sets out a comprehensive analysis of capability requirements and potential solution options. The focus is on addressing equipment obsolescence issues, sustaining capability improvements made in the current levy period and adding to those capabilities to provide faster, more effective responses with greater reach from the shore and more efficient and effective responses to larger incidents. The greater the ability to prevent oil reaching the shoreline, the less the consequences will be, reducing impacts on communities and saving time and money.

We propose a number of options with, as a minimum, the maintenance of the current 2015 capability level. In terms of enhancing capability we present a range of options, recognising the potentially significant funding requirements and that there are choices to be made around the level of capability that is desired. We are recommending that all options are considered over a six-year funding period – two Levy review cycles- but undertaking a review at the three year mid-point to assess any need for changes based on risk and activity levels.

## **The current Levy**

The current Oil Pollution Levies Order 2013 provides for a levy with three separate components:

- The 'Base Levy', which aims to generate \$4.6 million per year to maintain business as usual in terms of meeting Maritime NZ's obligations to maintain oil pollution preparedness and response capability at the level considered appropriate at the time the levy was set;



- An 'Equipment Levy' of \$600,000 per year for three years to cover the cost of essential oil spill equipment as identified by a review of New Zealand's oil spill response capability conducted by Thompson Clarke Shipping in 2010, and
- A 'Capability Levy' of \$400,000 per year for three years to fund the implementation of specific, oil related, recommendations from *Rena* debriefs, some enhancement to MPRS systemic capability, and National Response Team training.

Under the current order both the Equipment Levy and the Capability Levy components cease to be collected as of 1 July 2016.

The target annual total amount of funding (\$5.6 million) is divided amongst industry levy payers based on an assessment of the industry sector's contribution to New Zealand's overall risk of a marine oil spill. The risk assessment for the current levy is the Marine Oil Spill Risk Assessment 2010 (MOSRA 10). The assessment was carried out by the independent consultancy Navigatus Consulting Ltd. For the current levy, MOSRA 10 was updated in 2012 which updated the information contained in the MOSRA 10 report with the most current risk information available in 2012, and levy contributions apportioned according to contribution to risk.

## Proposals on the Methodology for the New Levy

### Proposed method of allocation of funding required to sectors

We propose no change to the methodology for allocating the new Levy target amount to contributing sectors but we propose to use an updated version of the risk assessment undertaken in 2015 with the latest available data and taking into account improvements in oil spill modelling (MOSRA 15 – again undertaken by Navigatus). The final revenue target (the total amount that it is proposed the Fund collects per year) will be divided by the sector risk assessment allocation percentage derived from the MOSRA 15 to calculate the Levy contribution required from each sector. MOSRA 15 and its appendices are available at:

[maritimenz.govt.nz/Environmental/Marine-oil-spill-risk-assessment/](http://maritimenz.govt.nz/Environmental/Marine-oil-spill-risk-assessment/)

### Levy Calculation within each sector

Having determined what share of the Levy revenue should be raised from each sector, a method is required to translate this overall sector share into a practicable, collectable and equitable rate for individual vessels or operators within the sector.

Each MOSRA versions details for each sector how much of that sector's risk share comes from oil carried as cargo (persistent and non-persistent) and how much from oil carried as bunker fuel. This breakdown allows the sector share revenue total to be broken down into one of these three risk areas.

The next step is to model the expected level of activity in the sector during the period of the proposed levy. With this data a calculation is then made of how much to charge per tonne of oil carried as cargo (split into persistent and non-persistent) and, using 'Gross Tonnage' as a proxy for bunker fuel capacity how much to charge for oil as bunker fuel.

For the offshore oil sector the contribution is calculated by applying the percentage share of risk directly to the quantum of funds required to be raised (as there is no oil carried as cargo and no feasible Gross Tonnage proxy).

We propose to follow the same methodology to calculate the rates required from individual levy contributors as in the current levy, using risk data from MOSRA 15.

## **MOSRA 15**

MOSRA 15 builds on previous risk assessments that have been undertaken since 1992, in particular building on the 2012 Sector report, which updated the information contained in the MOSRA 10 report with the most current risk information available in 2012. The table below shows the changes in the sector share of risk between the previous 2012 sector report and the sector share percentages in MOSRA 15.

Each sector's percentage share of risk has been changed by the MOSRA 15 update. For three sectors, however, there are very significant changes – foreign tankers' and domestic tankers' shares rise markedly and the sector share for offshore oil falls markedly. The changes are due to a combination of factors, including changes in activity in each sector, a better understanding of what amounts of oil are actually carried, a better understanding of vessel routing (from modern tracking systems) and significant improvements in modelling and analysis. MOSRA 15 is far more effective than previous assessments at modelling the effect of winds, currents and sea temperature on potential oil spills.

### **Risk Allocation**

It is important to note that the MOSRA process looks at risk in terms of likelihood (probability) and consequence and uses both domestic and international data. International data is necessary due to the very small sample sizes for purely New Zealand based activity, from a statistical analysis perspective.

The MOSRA then takes these results and for the sector share analysis considers the relative risk between sectors, i.e. which sector has the greatest risk when compared to the other sectors. This can be thought of as the total risk being 100 units and determining how much of this total is allocated to each sector. As such, although the MOSRA work considers risk arising from marine activities, the sector share allocation is not concerned with whether there has been an increase or decrease in the total marine oil spill risk but rather apportions a share of New Zealand's total marine oil spill risk to each sector, based on their contribution. It is a relative measure.

As the sector share is based on a total of one hundred percentage points, a decrease in the relative risk of one sector must mean an increase in the relative risk of another and vice versa. This means that as well as changes in the likelihood (probability), better and more comprehensive data, better modelling of impacts, and better understanding of actual oil amounts carried change the risk for individual sectors, the sector share percentages will also change in relation to other sectors' changing share of risk. Changes from 2012 to 2015 can be seen in Table 1 below.

### **Use of the Shoreline Impact Basis to calculate sector share**

Two different impact themes were explored in MOSRA 15 to determine the sector contributions to New Zealand's pollution risk – a shoreline impact basis and an open water basis. The shoreline impact basis continued and improved on the methodology used in the previous MOSRA, while the open water basis was a new addition to the methodology.

It was considered important to find out whether the risk in the open sea could be modelled. The work revealed, however, that the environmental values that are used in the assessment of risk are not as well developed for the open sea basis as they are for the shoreline. Reliable data on impacts and how to measure them is not available to the same degree as it is for the shoreline; as such it is not considered possible to use the open sea results in this iteration of the model when looking at overall sector risk. In the years to come Maritime NZ will continue to develop this aspect of the modelling. Therefore, it was decided to continue using the shoreline impact basis as it provides the most accurate picture of contribution to pollution risk.

**Table 1: Comparison of MOSRA sector share percentages: 2012 and 2015**

Sector	Sector share % 2012 Sector report <sup>1</sup>	Sector share % MOSRA 15 Shoreline	% change
Foreign Tankers	44	<b>60.6</b>	+16.6
Domestic Tankers	12.5	<b>19.6</b>	+7.1
Foreign Passenger and Cargo	26	<b>9.4</b>	-16.6
Domestic Passenger and Cargo	11	<b>9.4</b>	-1.6
NZ Fishing Vessels	2.5	<b>0.9</b>	-1.6
Offshore oil and gas	4	<b>0.03</b>	-3.97

**Note:** the percentages in the MOSRA 15 column do not add up to 100 due to rounding differences caused by the offshore oil and gas sector share.

The main reasons for the changes are a significantly improved data set around volumes and types of oil carried, improved modelling of wind and currents, and the effects of temperature.

We propose to use the shoreline risk percentages from MOSRA 15 as the basis of the sector share calculations for the new Levy.

Detailed analysis of the differences between the MOSRA 15 sector contributions and previous risk assessments can be found in the full document Marine Oil Spill Risk Assessment 2015 and its associated interactive web tool, which are available on the Maritime NZ website at:

[maritimenz.govt.nz/Environmental/Marine-oil-spill-risk-assessment/](http://maritimenz.govt.nz/Environmental/Marine-oil-spill-risk-assessment/)

## Bunker fuel carried by tankers

The per-sector risk assessment, as determined by MOSRA 15, is slightly different to the sector percentages it is proposed are used to calculate each sector's share of the Levy. This is because an adjustment has been made to the risk percentages to acknowledge that the risk of carrying bunker fuel is the same, irrespective of whether it is being carried by a tanker or a passenger vessel.

This approach is the same as that used in the current Levy. Using MOSRA 15 data the risk for bunker fuel carried by domestic tankers has been combined with the risk for domestic passenger and cargo vessels, and the risk for bunker fuel carried by foreign tankers has been combined with the risk for foreign passenger and cargo vessels.

## Adjusted MOSRA Sector Share Percentages – for use in Levy calculation

Table 2 below shows the sector share percentages after adjustment for the tanker bunker fuel issue for both MOSRA 12 and MOSRA 15. It is proposed to use the MOSRA 15 adjusted sector share percentages below as the basis for allocating the Levy for 2016 to 2019 between sectors.

<sup>1</sup> These percentages were amended by Cabinet subsequent to the Levy consultation in 2012 so differ from the sector share used to calculate the current Levy

**Table 2 - Adjusted MOSRA Sector Share Percentages**

Sector	Sector share % In current Levy Order based on 2012 Sector Report	Proposed sector share % based on MOSRA 15	% change
Foreign Tankers	41.366	<b>58.782</b>	+17.42
Domestic Tankers	10.375	<b>18.62</b>	+8.25
Foreign Passenger and Cargo	28.64	<b>11.218</b>	-17.42
Domestic Passenger and Cargo	13.125	<b>10.38</b>	-2.75
NZ Fishing Vessels	2.5	<b>0.9</b>	-1.6
Offshore oil and gas <sup>2</sup>	4	<b>0.03</b>	-3.97

**Note:** as above, the percentages in the MOSRA 15 column do not add up to 100 due to rounding differences caused by the offshore oil and gas sector share.

## Risk percentages for the offshore oil and gas sector

The MOSRA 15 assessment represents a significant decline in the share of overall risk attributed to the offshore oil and gas sector, which in turn translates into a proposed reduction in the amount paid by the sector under the Levy. While it may appear that this is out of sync with the magnitude of any potential spill from this sector, it is important to note that the level of activity in New Zealand is very, small and that the likelihood of a serious incident is statistically extremely low. Combined this gives a very low sector share especially given the increases in other sectors.

In addition it is essential to note that for the offshore industry the Levy is only one small part of their overall contribution to the readiness and response system overall and that the other aspects of the system that are unique to the industry involve significant financial contributions. These requirements are part of the comprehensive regulatory framework in place specifically for offshore oil and gas operators. The framework mandates that:

- An offshore installation may not be operated without an Oil Spill Contingency Plan<sup>3</sup> that requires a Tier 1 response capability appropriate to the activity being undertaken that typically includes an inventory of dedicated response equipment held on the installation and personnel responsibilities for the deployment, survey and maintenance of that equipment
- Offshore installation operators are required to possess a Certificate of Insurance, for which they must provide evidence of financial security to meet the owner's liability in the case of cleaning up oil pollution and oil pollution damage. This financial security must be no less than \$26 million.
- In addition to an Oil Spill Contingency plan, operators of offshore installations must have a detailed Well Control Contingency Plan specifying how a response would be mounted to a 'blow out' event. These plans typically require industry to contract specialist support at a considerable cost.

<sup>2</sup> The offshore oil and gas industry is currently levied at a fixed rate, which is slightly higher than the 4% sector share of risk.

<sup>3</sup> Formerly a Discharge Management Plan

- The owners and operators of an offshore installation bear unlimited liability for the costs resulting from an oil spill incident; this is in contrast to the international regime for vessels where liability is limited by international agreement.

Taken together these requirements place significant additional costs on the offshore oil and gas industry over and above the Levy, and beyond those placed on vessels so as to ensure that the potential costs of preparedness and response for an oil spill from the offshore oil and gas industry is funded in large part from the industry.

## **Segregated ballast water tanks**

In November 1993 the non-mandatory IMO assembly resolution 774(18) recommended to States that oil tankers fitted with segregated ballast water tanks should have their tonnage certificates annotated with an additional (lower) tonnage figure to be used for the purpose of charging fees. This resolution was based on an original resolution issued back in 1977 – res.A388(10).

The original IMO resolution (1977) was intended to encourage the use of segregated ballast in tankers for environmental reasons by generating a comparative advantage in fees charged for those tankers with the segregated arrangement. In the time that has elapsed since the resolution was introduced, the majority of tankers have this segregated ballast. Therefore, using reduced gross tonnage for the purposes of a levy does not provide any comparative advantage.

The current Levy is charged on foreign tankers based on their reduced gross tonnage, which is calculated in line with resolution 774(18).

It is proposed that in a new Levy Order, it is specified that the gross tonnage of a tanker, and not the reduced gross tonnage, is used to calculate the Levy payable.

As the Oil Pollution Levy is levied based on a desired quantum of funds from a given sector, whether gross tonnage or reduced gross tonnage is used does not affect the total that is aiming to be levied from the sector. However, it does affect the rate at which the Levy will be set, as the per tonne Levy rate calculated based on reduced gross tonnage will be higher than one calculated based on gross tonnage.

## Components of the new levy

We propose two components for a new Levy:

- A Baseline Levy; and
- A Capability Levy.

### Baseline Levy - \$5.17 million per year

The current Base Levy was set at rates to raise a target of \$4.6 million per year, to maintain response capability at 2013 levels.

For the six-year period 2016/17 to 2021/22, the Baseline levy sought is \$5.17 million per year. The Baseline Levy provides for the on-going operational services currently funded by the Base Levy, including the following capability elements:

- 8.2 FTE staff at MPRS to undertake compliance, readiness and response activities at current levels<sup>4</sup>;
- Logistics and maintenance support for the current equipment and material stockpiles (booms, skimmers, pumps, storage tanks, small vessels, vehicles, support systems);
- Regional training to support Regional Councils in provision of Tier 2 readiness and response capability;
- A regional exercise programme to support the provision of Tier 2 readiness and response capability;
- Provision of the current services by the National Oiled Wildlife Response Team<sup>5</sup>, and
- \$650,000 per year of depreciation funding to meet current depreciation costs and support a very limited procurement programme

The Baseline Levy component, as proposed, **does not**

- fund the vast majority of the asset replacement required to sustain the current equipment-based response capabilities<sup>6</sup>;
- fund the services developed in the current period (using the capability component of the current levy and Crown funding), such as underwater plume and gas cloud modelling, aerial observation and aerial dispersant capability, National Response Team training and additional compliance costs<sup>7</sup>;
- fund any capability enhancements, developments or improvements; proposals in this regard are covered under the Capability Levy component options.

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<sup>4</sup> The Baseline Levy funding includes maintaining the 1.5 FTE positions within MPRS that were established under the 'capability' component of the current Levy, and an annual increase in contract and salary costs of 2% for the years 2013 to 2016 and 2016 to 2019. This is to cover increases in contracts (such as the oiled wildlife contract), lease increases which are subject to indexation, and the increased costs of staff which were not factored into the baseline funding in the previous Levy, and to also address these costs in the future years of the new levy.

<sup>5</sup> Capability is provided by Massey University under contract; this contract expires June 2016 and will need to be renewed, likely at higher cost – see Capability Levy proposals.

<sup>6</sup> Equipment and material replacement is covered under the Capability Levy component.

<sup>7</sup> Funding for these elements is contained in the Capability Levy proposals with full technical details of the elements in the Capability Plan.

These components have been excluded from the Baseline Levy proposal so it is clear how the proposed Baseline Levy (\$5.17 million per year) compares to the current levy baseline component (\$4.5 million per year)

One consequence of this approach is that this levy component on its own will not sustain the current 2015/16 overall capability level. This is due to the need to replace significant amounts of the current equipment in the next few years, and to the ending of the current equipment and capability levy components on 30 June 2016.

In order to maintain current (2015/16) capability it is necessary to fund an asset replacement programme and to provide funding to sustain the improvements made using the current capability level. The first option presented under the Capability Levy component proposals below addresses this issue. Further options offer proposals to incrementally increase and/or enhance capability to address the capability growth needs discussed earlier.

A detailed breakdown of the makeup of the Baseline Levy is included as **Appendix 1**.

## Capability Plan

The Capability Plan sets out the detail of how to deliver the Strategy. It considers the findings of MOSRA 15, was informed by lessons from the *Rena* incident and response, lessons from international incidents, and trends in shipping. It also addresses the need for significant asset replacement in the current equipment inventory and the sustainment of certain additional capabilities established in the last three years. The plan was developed using expert technical input as well as dialogue with equipment and service suppliers.

A copy of the full Capability Plan is available at:

[maritimenz.govt.nz/OPL](http://maritimenz.govt.nz/OPL)

## Summary of the Capability Plan

The Capability Plan addresses three key matters, asset replacement (for equipment – including dispersant – that is at or beyond end-of life, capability sustainment (for items that are currently funded through additional time-bound levy and Crown appropriation) and capability development and enhancement (focused on filling in current gaps or shortfall in capability).

The key matters are discussed in the Capability Plan across five components: training, exercises, organisation, people, and equipment. Although discussed separately, the components are inter-related. The components are focused as follows:

- Equipment - the replacement and possible enhancement and distribution of response assets (physical equipment and chemical dispersants) to implement or facilitate a response to a marine oil spill;
- Training - the preparation of response personnel;
- Exercises - the use of simulated reality to mould responders into a cohesive and effective response unit and to test plans, personnel, and training;
- Organisation - the internal systems, processes, and knowledge that support the Marine Pollution Response Service (MPRS) to deliver its services in a sustainable and well-informed manner, and
- People - additional staff necessary to undertake the increased volume and complexity of readiness and response activities resulting from the components of the Capability Plan in the areas of planning, auditing, monitoring, training, exercising, advising and supporting on environmental matters, coordinating the National Response Team, and managing equipment.

The Capability Plan provides comprehensive details on the methodology used to develop options and proposals. Operational prioritisation was undertaken with selection of the lowest-cost option that it was considered would deliver the required capability

During the gap analysis Maritime NZ decided to take no further action on the purchase of far-offshore-capable equipment because of its high capital cost, the limited maritime resources to support such systems, and its limited effectiveness in the weather common in the New Zealand domain. Therefore, the Capability Plan relies on the availability of coastal equipment and suitable offshore conditions to provide an offshore response.

## Investment Drivers

There are three key investment drivers in the overall plan;

- **The need to replace assets to maintain current capability.** MPRS was established 20 years ago and significant parts of the current equipment inventory are obsolete or will become obsolete during the 2016 – 2019 period. As reserves have been reduced over time there is very limited depreciation funding to meet the costs of replacing the current inventory;
- **The need to sustain improvements made under initiatives that have occurred in the last three years.** From 2013 to 2015, the Government provided limited funding that enabled contracts to be put in place for gas plume modelling and aerial observation and dispersant application capabilities. The Capability Plan seeks funding to continue these capabilities.
- **The need to address gaps and improve and enhance key capabilities.** The revised Strategy identifies the need for capability changes and improvements

## Objective and Benefits of the Capability Plan

The objective of the Capability Plan is to ensure an efficient, effective and timely response to marine oil spill incidents when they occur with the desired outcome being the ability to reinstate the pre-incident state as much as possible and as quickly as possible at the lowest possible disruption to communities and the lowest possible cost to the Crown. The strategic benefits are:

- Limiting risks to health and safety for those on board the stricken vessel or installation, for example crew, passengers or responders, and those involved in the response such as people involved with the clean up or retrieval of hazardous substances;
- Limiting the damage to the environment caused by oil and other hazardous goods and substances. The *Rena* had over 1700 tonnes of heavy fuel oil on board. Following the grounding, over 400 birds were cared for at the oiled wildlife treatment and rehabilitation centre and 377 were released back into their environment;
- Limiting disruption to shipping activity, such as blocked shipping lanes or port areas, and the economic benefits that flow from such activity;
- Limiting damage to New Zealand's reputation as a safe place to visit and travel and as a country that takes seriously its commitments to a range of international environmental conventions;
- Minimising the overall costs stemming from the response and recovery phases;
- Ensuring effective management of liability and maximising what is recoverable from responsible parties;
- Ensuring an effective transition to the recovery, restoration and rehabilitation phases of oil spill management.

International studies show that the direct costs of the clean-up for an oil spill vary greatly depending on a multitude of factors including oil type, spill volume, location, weather and the response methods



used. The most expensive element of the clean-up is the activity at the shoreline, which means response measures that prevent or reduce the oil reaching the shoreline have a very high benefit.

The economic, environmental and social costs (as opposed to direct clean-up costs) are potentially very large and again, are most likely to be high where the oil reaches the shorelines and estuaries around the coastline.

### **Independent Peer Review of Capability Plan**

The Capability Plan is very comprehensive with detailed discussion on technical and operational matters in relation to oil spill readiness and response. Development took a considerable period of time and included an independent, expert review of the work.

The International Tanker Owners Pollution Federation (ITOPF<sup>8</sup>), undertook the review. As an industry funded, not-for profit organisation that has worked on over 700 oil spills world-wide since the 1970s, including attendance at the **Rena** response, ITOPF were uniquely placed to undertake this work. The review was comprehensive and included consideration of background material - the Strategy, MOSRA 15, Thompson Clarke Review, **Rena** Review, National Marine Oil Spill Response Plan -as well as significant interchanges with Maritime NZ and MPRS staff.

The full ITOPF review report is available at:

[maritimenz.govt.nz/OPL](http://maritimenz.govt.nz/OPL)

The report raised recommendations to consider in respect to the Capability Plan as well as some matters where ITOPF considers that more effort should be invested. Overall, ITOPF were strongly supportive of the approach taken and the conclusions reached and consider that full implementation of the Capability Plan will enable delivery on the Strategy.

### **A note on 'capability':**

The term capability is used throughout these proposals in a number of different contexts. Capability can be thought of as comprising a number of components – people, skills and knowledge, experience and currency and equipment. To achieve and maintain a certain level of capability may require some or all of these components. Different aspects of capability are addressed by different proposed components of the Levy.

1. The Baseline Levy in part covers business as usual capability costs, for example the current training, exercising and equipment needs to maintain New Zealand's current level of capability to respond to marine oil spills.
2. The increases to the Baseline Levy are in part to cover costs that are met by the current levy capability element but that will cease in July 2016, for example the costs of the 1.5 additional staff established at the last review.
3. The new Capability Levy. This will give effect to recommendations from the Capability Plan which sets out the equipment, training and resources needed to deliver on the goals of the revised Strategy.

### **Capability Levy Options**

Taking the Capability Plan into account we propose a number of possible options for the Capability Levy component. The starting point is a minimal option to maintain current 2015/16 capabilities overall; three more options then build on the current capability incrementally and progressively. Each option details what the capability sustainment or improvements are, why these are considered appropriate and what the benefits would be.

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<sup>8</sup> ITOPF – International Tanker Owners Pollution Federation; the leading international marine ship pollution response advisors. See <http://www.itopf.com/>

## **Stretching and Scaling of Options**

The Capability Plan was originally developed to set out how Maritime NZ could build the capability to fully deliver the Strategy over the three-year period from 2016 to 2019. Making substantial capability improvements in such a short space of time would have required a very significant investment over and above the funding required to maintain current levels of capability.

We instead propose that any sustainment and improvement options are all based around a six-year growth path (with a mid-point review), 'stretching' the implementation period and reducing the annual impact of the funding requirements.

We also recognise that capability funding can be scaled to different levels. As a minimum, sustaining the current 2015/16 level of readiness and response is essential. This is presented as Option A.

Further options are presented that would increase capability above current levels; operationally we would seek to achieve the full capabilities detailed in the Capability Plan – the most expensive option presented but incremental steps in between this and the minimum are also detailed. The following four options for the Capability Levy component have been developed (all these options require in addition the baseline Levy component - \$5.17M per year):

- **A - Capability Sustainment - \$1.350M per year**
- **B – Capability Growth 1 - \$2.371M per year**
- **C – Capability Growth 2 - \$2.879M per year**
- **D – Full Capability Plan - \$3.682M per year**

Each Capability Levy option is explained in the following section in more detail.

## Proposed options for a new Levy

The following section combines the proposed Baseline Levy and Capability Levy components to show four options for the total Levy. All options combine Baseline Levy funding and the Capability Levy; funding; variations come from the different Capability Levy component options. Comparisons are provided showing the proposed Levy rates that would result from each option as compared to the current Levy rate, as well as examples for what individual vessels may expect to pay under each of the proposed options.

The options are made up of the following components:

**Option A:** Baseline funding + Capability Levy (Capability Sustainment)

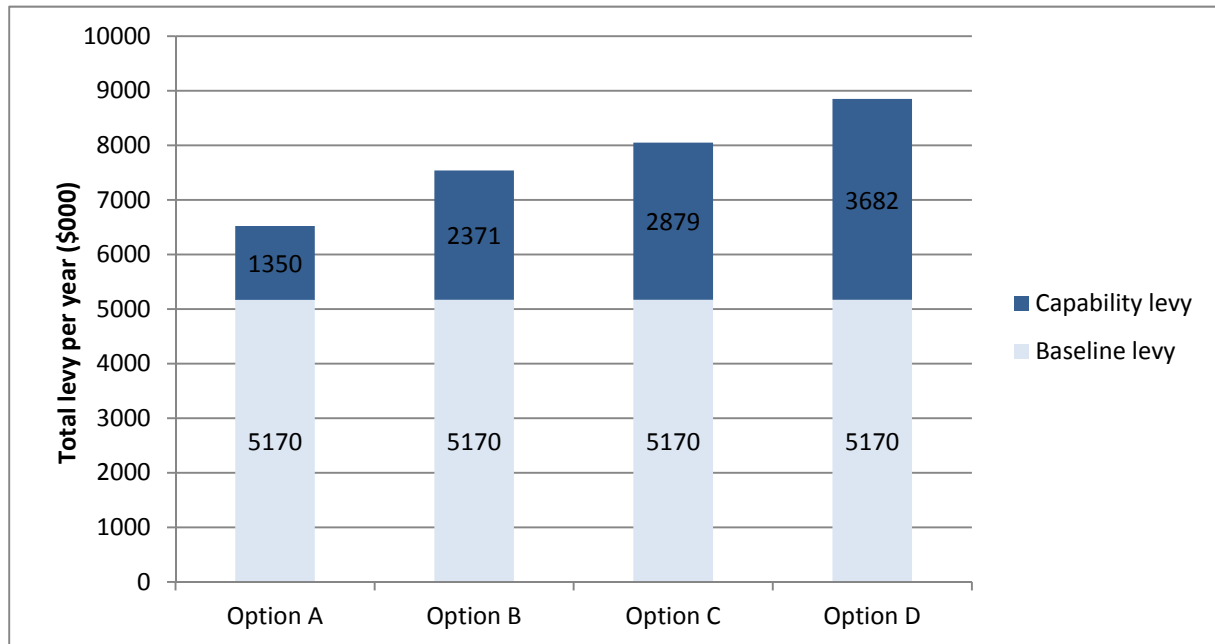
**Option B:** Baseline funding + Capability Levy (Capability Growth 1)

**Option C:** Baseline funding + Capability Levy (Capability Growth 2)

**Option D:** Baseline Levy + Capability Levy (Full Capability Plan)

The graph below shows the quantum of each proposed option, in terms of a per year amount, and how this is made up from the three elements.

### Cost of proposed options



Maritime NZ is interested in your views as to the best option for funding oil spill response capability overall and what variations, additions or subtractions might be considered. Details of how to submit your views are available on page 33 of this document.

## Option A - Capability Sustainment (\$6.526 million per year)

This option is comprised of the following two components, over a period of six years:

- Baseline Levy - \$5.17 million per year; and
- Capability Levy- \$1.356 million per year.

**Total levy: \$6.526 million per year**

Option A delivers the current level of regulatory, compliance and readiness and response capabilities as it includes asset replacement and capability sustainment funding. As it is focused on maintaining current levels of response capability, there is no capability enhancement element to this option.

### Asset Replacement

- Obsolete shoreline, in-shore and near-shore booms are replaced;
- Skimmers, pumps and storage systems are updated;
- Vehicle and vessel ancillaries replaced;
- Dispersant stocks are fully replaced.

### Capability Sustainment

- The contract for sub-sea plume modelling is retained;
- The contract for gas cloud modelling is retained;
- Contracts for aerial observation and aerial dispersant application capabilities are maintained;
- The current level of funding for the National Response Team is sustained.

### Capability Delivered by Option A

Option A would allow MPRS to deliver an effective and efficient response in the event of smaller spills, with a focus on spills in sheltered waters and areas close to the shore. This option includes augmentation for major spill responses through international support arrangements.

The detailed elements and costs for this option are at **Appendix 2**

**Note:** the costs indicated in Appendix 2 are the planned annual costs of operational and capital expenditure for this option. To arrive at the per year figure above, these costs were averaged across the three years and depreciation funding, some of which is already included in the baseline, was factored in.

#### A note on rounding

In the tables below, the proposed rates given have been rounded to 2 decimal places for ease of comprehension.

Full rates and estimated annual revenue for this option are available at **Appendix 3**. The percentage change for each sector has been calculated based on the full rate.

The rounding decisions will cause some minor differences between the rate increase as described in this table, and the percentage increase.

## Comparison of current and proposed Levy rates

Sector	Current total levy rate per MT of oil - per visit	Option A - Proposed total levy rate per MT of oil - per visit	Change
Foreign Tankers Oil carried as cargo: persistent oil	\$0.37	\$0.41	12.2%
Foreign Tankers Oil carried as cargo: non-persistent oil	\$0.08	\$0.17	111.5%

Sector	Current total levy rate per MT of oil - per year	Option A - Proposed total levy rate per MT of oil , per year	Change
Domestic Tankers Oil carried as cargo: persistent oil	\$0.91	\$0.48	-46.8%
Domestic Tankers Oil carried as cargo: non-persistent oil	\$0.13	\$0.50	292.5%

Sector	Current total levy rate per GT - per port visit	Option A - Proposed total levy rate per GT, per port visit	Change
Foreign Passenger, Cargo and Tanker Bunker Fuel	\$0.01	\$0.003	-66.3%

Sector	Current total levy rate per GT - per year	Option A - Proposed total levy rate per GT, per year	Change
Domestic Passenger , Cargo and Tanker Bunker Fuel	\$3.71	\$3.49	-5.9%
NZ Fishing Vessels	\$1.64	\$0.81	-50.5%

Sector	Current total levy rate per site, per year	Option A -Proposed total levy rate per site, per year	Change
Platforms	\$9,169	\$43.13	-99.5%
FPSOS	\$105,000	\$3,012.93	-97.1%
Pipelines	\$9,114	\$34.61	-99.6%
Exploration wells	\$8,951	\$4.83	-99.9%

### Individual vessel examples

Foreign tankers: example charge calculations		MT of oil carried	Current Levy Charge per MT of oil, per visit	Option A Charge per MT of oil, per visit	Increase or decrease in charge
Foreign Tankers Oil carried as cargo: persistent oil	Vessel 1	37,959	\$13,980	\$15,683	\$1,703
	Vessel 2	124,843	\$45,980	\$51,579	\$5,599
Foreign Tankers Oil carried as cargo: non-persistent oil	Vessel 1	96,381	\$7,951	\$16,817	\$8,865
	Vessel 2	128,310	\$10,586	\$22,387	\$11,802

Domestic tankers: example charge calculations		MT of oil	Current Levy Charge per MT of oil, per year	Option A Charge per MT of oil, per year	Increase or decrease in charge
Domestic Tankers Oil carried as cargo: persistent oil	Vessel 1	201,600	\$182,992	\$97,302	-\$85,690
	Vessel 2	294,000	\$266,864	\$141,899	-\$124,965
Domestic Tankers Oil carried as cargo: non-persistent oil	Vessel 1	816,000	\$103,142	\$404,842	\$301,699
	Vessel 2	894,817	\$113,105	\$443,945	\$330,840

Foreign passenger and cargo vessels: example charge calculations		GT of vessel	Port visits	Current Levy Estimated total charge	Option A Estimated total charge	Increase or decrease in charge
Foreign Passenger, Cargo and Tanker Bunker Fuel	Vessel 1	121,878	12	\$14,625	\$4,931	-\$9,694
	Vessel 2	50,657	3	\$1,520	\$512	-\$1007

Domestic passenger, cargo and fishing vessels: example charge calculations		GT of vessel	Current Levy Charge per year	Option A Charge per year	Increase or decrease in charge
Domestic Passenger, Cargo and Tanker Bunker Fuel	Vessel 1	12,735	\$47,200	\$44,405	-\$2,795
	Vessel 2	22,365	\$82,891	\$77,983	-\$4,909
NZ Fishing Vessels	Vessel 1	4,407	\$7,228	\$3,580	-\$3,648
	Vessel 2	323	\$530	\$262	-\$267

Full tables of how these example rates have been calculated are included as **Appendix 3**.

## Option B – Capability Growth 1 (\$7.541 million per year)

This option is comprised of the following two components over a period of six years:

- Baseline Levy- \$5.17 million per year; and
- Capability Levy - \$2.371 million per year

**Total levy: \$7.541 million per year**

Option B delivers the current level of regulatory, compliance and readiness and response capabilities by addressing all the matters under Option A plus making a limited improvement in capability over time.

### Asset Replacement – as per Option A

### Capability Sustainment – as per Option A

### Capability Improvements

- Adding a new ‘coastal’ response capability with equipment for on-water oil recovery farther from shore than currently;
- Adding more systems for Near-shore and In-shore on-water response
- Adding a new, larger workboat more capable of operation farther from shore
- Increasing the amount of training and exercises at the National, Regional and Local levels
- Meeting the expected contract cost increases for the renewal of the National Oiled Wildlife Response Team contract
- Strengthening the MPRS and Maritime NZ organisational capacity to manage and operate the new capability by adding one FTE position focused on equipment and logistics;
- Developing and implementing a Vessel of Opportunity capability for a small number of vessels improving readiness and availability of commercial operators to support spill response operations – especially farther from shore;<sup>9</sup>
- Resourcing additional international engagement on technical and environmental matters to improve knowledge, standards and relationships.

### Capability Delivered by Option B

Option B delivers the same level of capability as Option A, plus greater capacity to respond in the In-shore and near-shore environment and a new capacity to respond in the coastal region. This option provides an improved ability to prevent oil from reaching the shoreline, thus reducing impacts and saving costs. Availability contracts generate significant capability at minimal cost when compared to owning and operating assets directly, and an additional FTE allows efficient running of enhanced equipment and material.

The detailed elements and costs for this option are at **Appendix 4**.

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<sup>9</sup> Funding for this element is partially obtained by scaling back the expenditure on aerial observation and aerial dispersant contracts.

### A note on rounding

In the tables below, the proposed rates given have been rounded to 2 decimal places for ease of comprehension.

Full rates and estimated annual revenue for this option are available at **Appendix 5**. The percentage change for each sector has been calculated based on the full rate.

The rounding decisions will cause some minor differences between the rate increase as described in this table, and the percentage increase.

### Comparison of current and proposed Levy rates

Sector	Current total levy rate per MT of oil - per visit	Option B - Proposed total levy rate per MT of oil - per visit	Change
Foreign Tankers Oil carried as cargo: persistent oil	\$0.37	\$0.48	30.2%
Foreign Tankers Oil carried as cargo: non-persistent oil	\$0.08	\$0.20	145.5%

Sector	Current total levy rate per MT of oil - per year	Option B - Proposed total levy rate per MT of oil , per year	Change
Domestic Tankers Oil carried as cargo: persistent oil	\$0.91	\$0.56	-34.7%
Domestic Tankers Oil carried as cargo: non-persistent oil	\$0.13	\$0.58	355.7%

Sector	Current total levy rate per GT - per port visit	Option B - Proposed total levy rate per GT, per port visit	Change
Foreign Passenger, Cargo and Tanker Bunker Fuel	\$0.01	\$0.004	-60.9%

Sector	Current total levy rate per GT - per year	Option B - Proposed total levy rate per GT, per year	Change
Domestic Passenger , Cargo and Tanker Bunker Fuel	\$3.71	\$4.05	9.2%
NZ Fishing Vessels	\$1.64	\$0.94	-42.5%



Sector	Current total levy rate per site, per year	Option B -Proposed total levy rate per site, per year	Change
Platforms	\$9,169	\$50.08	-99.5%
FPSOS	\$105,000	\$3,498.14	-96.7%
Pipelines	\$9,114	\$40.17	-99.6%
Exploration wells	\$8,951	\$5.61	-99.9%

### Individual vessel examples

Foreign tankers: example charge calculations		MT of oil carried	Current Levy Charge per MT of oil, per visit	Option B Charge per MT of oil, per visit	Increase or decrease in charge
Foreign Tankers Oil carried as cargo: persistent oil	Vessel 1	37,959	\$13,980	\$18,208	\$4,228
	Vessel 2	124,843	\$45,980	\$59,886	\$13,906
Foreign Tankers Oil carried as cargo: non-persistent oil	Vessel 1	96,381	\$7,951	\$19,525	\$11,573
	Vessel 2	128,310	\$10,586	\$25,993	\$15,407

Domestic tankers: example charge calculations		MT of oil	Current Levy Charge per MT of oil, per year	Option B Charge per MT of oil, per year	Increase or decrease in charge
Domestic Tankers Oil carried as cargo: persistent oil	Vessel 1	201,600	\$182,992	\$112,972	-\$70,020
	Vessel 2	294,000	\$266,864	\$164,751	-\$102,113
Domestic Tankers Oil carried as cargo: non-persistent oil	Vessel 1	816,000	\$103,142	\$470,039	\$366,896
	Vessel 2	894,817	\$113,105	\$515,439	\$402,335

Foreign passenger and cargo vessels: example charge calculations		GT of vessel	Port visits	Current Levy Estimated total charge	Option B Estimated total charge	Increase or decrease in charge
Foreign Passenger, Cargo and Tanker Bunker Fuel	Vessel 1	121,878	12	\$14,625	\$5,725	-\$8,900
	Vessel 2	50,657	3	\$1,520	\$595	-\$925

Domestic passenger, cargo and fishing vessels: example charge calculations		GT of vessel	Current Levy Charge per year	Option B Charge per year	Increase or decrease in charge
Domestic Passenger , Cargo and Tanker Bunker Fuel	Vessel 1	12,735	\$47,200	\$51,556	\$4,356
	Vessel 2	22,365	\$82,891	\$90,541	\$7,650
NZ Fishing Vessels	Vessel 1	4,407	\$7,228	\$4,157	-\$3,071
	Vessel 2	323	\$530	\$305	-\$225

Full tables of how these example rates have been calculated are included as **Appendix 5**.

## Option C – Capability Growth 2 (\$8.049 million per year)

This option is comprised of the following, over a period of six years:

- Baseline Levy- \$5.17 million per year; and
- Capability Levy - \$2.879 million per year

**Total levy: \$8.049 million per year**

Option C delivers the current level of regulatory, compliance and readiness and response capabilities by addressing all the matters under Option A plus making a moderate improvement in capability over time.

**Asset Replacement – as per option A.**

**Capability Sustainment – as per Option A**

**Capability Improvements – as per option B plus**

- Equipment and materials that are reaching their end of life are replaced sooner;
- More systems for in-shore and in-shore on-water response are added;
- Renewal of the National Oiled Wildlife Response Team contract, supporting a slight enhancement to the contracted capability;
- Strengthening the MPRS and Maritime NZ organisational capacity to manage and operate the new capability by adding an additional one FTE position focused on operations and planning;
- Restoring the funding for aerial observation and aerial dispersant contracts that was scaled under Option B.

**Capability Delivered by Option C**

This option delivers the capability of Option B, plus: greater capacity to respond in the in-shore and near-shore environment, further improved ability to prevent oil from reaching the shoreline (thus further reducing impacts and saving costs), and improved oiled wildlife response capability. An extra FTE improves operations and planning to support better involvement of regional and local authorities and industry. The slight increase in per year funding from option B also allows for earlier equipment and material replacement reducing obsolescence risks, i.e. capability improvements occur earlier in the funding cycle,

The detailed elements and costs for this option are at **Appendix 6**.

### **A note on rounding**

In the tables below, the proposed rates given have been rounded to 2 decimal places for ease of comprehension.

Full rates and estimated annual revenue for this option are available at **Appendix 7**. The percentage change for each sector has been calculated based on the full rate.

The rounding decisions will cause some minor differences between the rate increase as described in this table, and the percentage increase.

### Comparison of current and proposed Levy rates

Sector	Current total levy rate per MT of oil - per visit	Option C - Proposed total levy rate per MT of oil - per visit	Change
Foreign Tankers Oil carried as cargo: persistent oil	\$0.37	\$0.51	38.8%
Foreign Tankers Oil carried as cargo: non-persistent oil	\$0.08	\$0.22	161.8%

Sector	Current total levy rate per MT of oil - per year	Option C - Proposed total levy rate per MT of oil , per year	Change
Domestic Tankers Oil carried as cargo: persistent oil	\$0.91	\$0.60	-34.2%
Domestic Tankers Oil carried as cargo: non-persistent oil	\$0.13	\$0.61	385.8%

Sector	Current total levy rate per GT - per port visit	Option C - Proposed total levy rate per GT, per port visit	Change
Foreign Passenger, Cargo and Tanker Bunker Fuel	\$0.01	\$0.004	-58.3%

Sector	Current total levy rate per GT - per year	Option C - Proposed total levy rate per GT, per year	Change
Domestic Passenger , Cargo and Tanker Bunker Fuel	\$3.71	\$4.32	16.4%
NZ Fishing Vessels	\$1.64	\$1.01	-38.7%

Sector	Current total levy rate per site, per year	Option C - Proposed total levy rate per site, per year	Change
Platforms	\$9,169	\$53.39	-99.4%
FPSOS	\$105,000	\$3,729	-96.4%
Pipelines	\$9,114	\$42.83	-99.5%
Exploration wells	\$8,951	\$5.98	-99.9%

### Individual vessel examples

Foreign tankers: example charge calculations		MT of oil carried	Current Levy Charge per MT of oil, per visit	Option C Charge per MT of oil, per visit	Increase or decrease in charge
Foreign Tankers Oil carried as cargo: persistent oil	Vessel 1	37,959	\$13,980	\$19,411	\$5,431
	Vessel 2	124,843	\$45,980	\$63,841	\$17,861.39
Foreign Tankers Oil carried as cargo: non-persistent oil	Vessel 1	96,381	\$7,951	\$20,814	\$12,863
	Vessel 2	128,310	\$10,586	\$27,710	\$17,124

Domestic tankers: example charge calculations		MT of oil	Current Levy Charge per MT of oil, per year	Option C Charge per MT of oil, per year	Increase or decrease in charge
Domestic Tankers Oil carried as cargo: persistent oil	Vessel 1	201,600	\$182,992	\$128,434	-\$62,559
	Vessel 2	294,000	\$266,864	\$175,632	-\$91,231
Domestic Tankers Oil carried as cargo: non-persistent oil	Vessel 1	816,000	\$103,142	\$501,085	\$397,942
	Vessel 2	894,817	\$113,105	\$549,484	\$436,379

Foreign passenger and cargo vessels: example charge calculations		GT of vessel	Port visits	Current Levy Estimated total charge	Option C Charge per port	Increase or decrease in charge
Foreign Passenger, Cargo and Tanker Bunker Fuel	Vessel 1	121,878	12	\$14,625	\$6,103	-\$8,522
	Vessel 2	50,657	3	\$1,520	\$634	-\$886

Domestic passenger, cargo and fishing vessels: example charge calculations		GT of vessel	Current Levy Charge per year	Option C Charge per year	Increase or decrease in charge
Domestic Passenger, Cargo and Tanker Bunker Fuel	Vessel 1	12,735	\$47,200	\$54,961	\$7,761
	Vessel 2	22,365	\$82,891	\$96,521	\$13,630
NZ Fishing Vessels	Vessel 1	4,407	\$7,228	\$4,431	-\$4,797
	Vessel 2	323	\$530	\$325	-\$205

Full tables of how these example rates have been calculated are included as **Appendix 7**.

## Option D – Full Capability Plan (\$8.852 million per year)

This option is comprised of the following, over a period of six years:

- Baseline Levy - \$5.17 million per year; and
- Capability Levy - \$3.682 million per year.

**Total levy: an average of \$8.852 million per year**

Option D ensures that the current level of regulatory, compliance and readiness and response ability is maintained by addressing all the matters under Option A plus making a significant improvement in capability over time. This option implements all the recommendations of the Capability Plan by the end of the six year period.

**Asset Replacement – as per option A.**

**Capability Sustainment – as per Option A**

**Capability Improvements – as per option C plus:**

- Adding a second coastal response system for increased capacity for on-water oil recovery farther from shore than currently;
- Adding additional dispersant stocks to the current holdings;
- Adding capability for dispersant effectiveness monitoring;
- Significant increase in National Response Team training;
- Enhancing the Vessel of Opportunity capability by building it up more quickly and involving more vessels, further improving readiness and availability of commercial operators to support spill response operations – especially farther from shore;
- Equipment and materials that are reaching their end of life are replaced sooner;
- Supporting a further slight enhancement to the contracted capability under the renewal of the National Oiled Wildlife Response Team contract;
- Strengthening the MPRS and Maritime NZ organisational capacity to manage and operate the new capability by adding an additional one FTE position focused on environmental matters;
- Building capability earlier in the funding cycle.

**Capability Delivered by Option D**

This option delivers the capability of Option C, plus a further improved ability to prevent oil from reaching the shoreline, thus further reducing impacts and saving costs. Option D delivers the ability to apply more dispersant for longer before needing to source additional supplies from overseas, and improves readiness and resilience in National Response Team – there will be more people with greater skills to sustain a longer or larger incident more easily. More vessels will be pre-arranged, trained and available for supplementing a response effort. There will be an improved oiled wildlife response capability and a significant improvement in environmental advice, support and analysis capability for readiness and response work. The increase in per year funding from Option C would allow for earlier capability build up as well as a greater level of overall capability.

The detailed elements and costs for this option are at **Appendix 8**.

### A note on rounding

In the tables below, the proposed rates given have been rounded to 2 decimal places for ease of comprehension.

Full rates and estimated annual revenue for this option are available at **Appendix 9**. The percentage change for each sector has been calculated based on the full rate.

The rounding decisions will cause some minor differences between the rate increase as described in this table, and the percentage increase.

### Comparison of current and proposed Levy rates

Sector	Current total levy rate per MT of oil - per visit	Option D- Proposed total levy rate per MT of oil - per visit	Change
Foreign Tankers Oil carried as cargo: persistent oil	\$0.37	\$0.56	52.6%
Foreign Tankers Oil carried as cargo: non-persistent oil	\$0.08	\$0.24	187.7%

Sector	Current total levy rate per MT of oil - per year	Option D - Proposed total levy rate per MT of oil , per year	Change
Domestic Tankers Oil carried as cargo: persistent oil	\$0.91	\$0.66	-27.7%
Domestic Tankers Oil carried as cargo: non-persistent oil	\$0.13	\$0.67	434%

Sector	Current total levy rate per GT - per port visit	Option D - Proposed total levy rate per GT, per port visit	Change
Foreign Passenger, Cargo and Tanker Bunker Fuel	\$0.01	\$0.005	-54.1%

Sector	Current total levy rate per GT - per year	Option D- Proposed total levy rate per GT, per year	Change
Domestic Passenger , Cargo and Tanker Bunker Fuel	\$3.71	\$4.74	28%
NZ Fishing Vessels	\$1.64	\$1.11	-32.6%

Sector	Current total levy rate per site, per year	Option D -Proposed total levy rate per site, per year	Change
Platforms	\$9,169	\$58.68	-99.4%
FPSOS	\$105,000	\$4,099	-96.1%
Pipelines	\$9,114	\$47.08	-99.5%
Exploration wells	\$8,951	\$6.57	-99.9%

### Individual vessel examples

Foreign tankers: example charge calculations		MT of oil carried	Current Levy Charge per MT of oil, per visit	Option D Charge per MT of oil, per visit	Increase or decrease in charge
Foreign Tankers Oil carried as cargo: persistent oil	Vessel 1	37,959	\$13,980	\$21,335	\$7,355
	Vessel 2	124,843	\$45,980	\$70,170	\$24,190
Foreign Tankers Oil carried as cargo: non-persistent oil	Vessel 1	96,381	\$7,951	\$22,878	\$14,926
	Vessel 2	128,310	\$10,586	\$30,457	\$19,871

Domestic tankers: example charge calculations		MT of oil	Current Levy Charge per MT of oil, per year	Option D Charge per MT of oil, per year	Increase or decrease in charge
Domestic Tankers Oil carried as cargo: persistent oil	Vessel 1	201,600	\$182,992	\$132,373	-\$50,620
	Vessel 2	294,000	\$266,864	\$193,043	-\$73,820
Domestic Tankers Oil carried as cargo: non-persistent oil	Vessel 1	816,000	\$103,142	\$550,759	\$447,616
	Vessel 2	894,817	\$113,105	\$603,956	\$490,851

Foreign passenger and cargo vessels: example charge calculations		GT of vessel	Port visits	Current Levy Estimated total charge	Option D Charge per port	Increase or decrease in charge
Foreign Passenger, Cargo and Tanker Bunker Fuel	Vessel 1	121,878	12	\$14,625	\$6,709	-\$7,917
	Vessel 2	50,657	3	\$1,520	\$697	-\$823



Domestic passenger, cargo and fishing vessels: example charge calculations		GT of vessel	Current Levy Charge per year	Option D Charge per year	Increase or decrease in charge
Domestic Passenger , Cargo and Tanker Bunker Fuel	Vessel 1	12,735	\$47,200	\$60,409	\$13,210
	Vessel 2	22,365	\$82,891	\$106,090	\$23,198
NZ Fishing Vessels	Vessel 1	4,407	\$7,228	\$4,870	-\$2,358
	Vessel 2	323	\$530	\$357	-\$173

Full tables of how these example rates have been calculated are included as **Appendix 9**.

## Comparison of options

The table below compares the total levy rate that would result from each option against the current total rate.

### Comparison of all options against current Levy rates

Sector	Current total levy rate per MT of oil - per visit	Option A	Option B	Option C	Option D
Foreign Tankers Oil carried as cargo: persistent oil	\$0.37	\$0.41	\$0.48	\$0.51	\$0.56
Foreign Tankers Oil carried as cargo: non-persistent oil	\$0.08	\$0.17	\$0.20	\$0.22	\$0.24

Sector	Current total levy rate per MT of oil - per year	Option A	Option B	Option C	Option D
Domestic Tankers Oil carried as cargo: persistent oil	\$0.91	\$0.48	\$0.56	\$0.60	\$0.66
Domestic Tankers Oil carried as cargo: non-persistent oil	\$0.13	\$0.50	\$0.58	\$0.61	\$0.67

Sector	Current total levy rate per GT - per visit	Option A	Option B	Option C	Option D
Foreign Passenger, Cargo and Tanker Bunker Fuel	\$0.01	\$0.003	\$0.004	\$0.004	\$0.005

Sector	Current total levy rate per GT - per year	Option A	Option B	Option C	Option D
Domestic Passenger, Cargo and Tanker Bunker Fuel	\$3.71	\$3.49	\$4.05	\$4.32	\$4.74
NZ Fishing Vessels	\$1.64	\$0.81	\$0.94	\$1.01	\$1.11

Sector	Current total levy rate per site, per year	Option A	Option B	Option C	Option D
Platforms	\$9,169	\$43.13	\$50.08	\$53.39	\$58.68
FPSOS	\$105,000	\$3,012.93	\$3,498.14	\$3,729	\$4,099
Pipelines	\$9,114	\$34.61	\$40.17	\$42.83	\$47.08
Exploration wells	\$8,951	\$4.83	\$5.61	\$5.98	\$6.57

# Benefits delivered by each option

The table on the following page summarises the benefits delivered under each option to New Zealand in terms of capability at responding to marine oil spills by the end of the six year period.

**Key:**

√	The option fully delivers the benefit
√	The option substantially delivers the benefit
√	The option partially delivers the benefit
√	The option delivers a limited benefit
×	The option does not deliver the benefit

...

Spill response objectives	Achieved by...	Option A	Option B	Option C	Option D
The current equipment and capabilities to respond to oil spills is maintained	Out-of-date equipment is replaced , current contracts are maintained (aerial response, modelling), current staffing and training levels are retained	✓	✓	✓	✓
New Zealand's in-shore and near-shore areas are protected in the event of a spill so reducing the consequences of the spill and reducing response costs overall	Sub-sea oil plumes and gas clouds can be modelled, to predict where oil or gas may go and so support more effective measures to prevent it from reaching the shoreline	✓	✓	✓	✓
	Oil spill control agents can be used to disperse oil before it reaches the New Zealand shoreline through aerial dispersant application reducing the costs of the response by preventing or reducing shoreline impact	✓	✓	✓	✓
New Zealand's oil spill response is effective and efficient so reducing spill impacts on people and the environment and reducing overall spill response costs	Oil can be recovered on-water in shallow areas close to the shore, preventing oil from reaching the shore reducing the costs of the response	✓	✓	✓	✓
	Tracking of oil spills and the effects of dispersant through tracking buoys/fluorometry allows response measures to be better tailored to the specific circumstances	✗	✗	✗	✓
	Additional stocks of dispersant allow for longer periods of continuous operations before relying on overseas stockpiles, enabling more rapid dispersal of oil for dispersible oils, reducing the volumes that might reach the shoreline	✗	✗	✗	✓
New Zealand's oil spill response is effective and efficient so reducing spill impacts on people and the environment and reducing overall spill response costs	National Response Team Training is delivered at 2013 levels maintaining a baseline capability for major, national level spills	✓	✓	✓	✓
	National Response Team Training is enhanced to meet the Goals and Objectives of the revised National Marine Oil Spill Response Strategy giving improved readiness for response and more effective spill responses at the national level	✗	✗	✗	✓
Oil spills can be managed farther out to sea, close to the source so better protecting the shoreline from spill impact and reducing response costs overall-	Incident Management System maintenance and improvements support effective response planning and efficient financial management of large-scale, enduring responses	✓	✓	✓	✓
	Coastal on-water containment and recovery systems enable the management oil spills farther from shore in less-sheltered waters and even offshore in benign weather conditions reducing the costs of the response by preventing or reducing shoreline impact	✗	✓	✓	✓
Technical and scientific knowledge about oil spill response is improved supporting more effective responses	Contracts with 'vessels of opportunity' provide the ability to deploy equipment far from the shore when necessary significantly increasing latent capacity to undertake response measures away from the shoreline	✗	✓	✓	✓
	Additional positions established supporting the improvement of international relationships and core technical and scientific knowledge plus maintenance of new equipment items improving skills and knowledge and thus response effectiveness	✗	✓	✓	✓

## Other matters

### Consideration of a performance-based Levy

During the last review of the New Zealand Oil Pollution Levies Order a suggestion was made that the oil pollution levy contributions could be based on individual levy payers' performance, or that there should be a performance-based component.

Given that in theory a performance-based levy has merit (not least because it aligns with a "risk based" regulatory framework where good performance is rewarded) this was investigated by Maritime NZ as a possible policy direction. On balance our assessment is that the potential benefits of an individual performance –based levy are very much outweighed by the complexity, cost, and uncertainty associated with such an approach.

On the basis of our analysis, which is summarised below, Maritime NZ does not support an individualised performance-based levy.

There are particular features to the oil pollution levy that are important to note as context to our analysis. Firstly, the levy needs to generate a specific minimum amount of revenue each year. The amount of revenue required, year on year, informs the levy rates. Given the revenue quantum is fixed, any decrease for one operator (or a number of operators) on the basis of performance has to therefore be balanced or offset by an increase in levy rates for another operator (or a number of operators). In effect this means that there would be winners and losers, which in our view would not be fair.

Further, under the current order levy rates are fixed until such time as the Order is revised through the usual regulation making process. A performance-based levy approach would require levy rates to be moved up or down at a level of regularity that could respond in a timely way to good or poor performance. This could be annually, or every six months – but the more 'dynamic' the levy in terms of an ability to charge more or less, the more complex and uncertain the system becomes for levy payers.

A performance based levy system would need to rely on a set of credible and defensible performance criteria. Among other measures, those criteria could reasonably include past performance in terms of the number and volume of oil spills. There are however very few oil spills by levy payers (and the majority do not have spills) which could make it difficult to distinguish one operator's performance (and therefore levy contribution) from another's. It is also the case that there is an obligation to report any oil spill. If operators were penalised through a higher levy for each and every spill, this could disincentivise spill reporting.

In terms of setting initial performance based levies, each levy payer would need to be assessed against the established criteria. Such assessment of over 400 individual operators would need to be conducted by Maritime NZ (as the administrator of the Levy) and would incur costs that would need to be met from the Oil Pollution Fund or recovered from each assessed party through fees. On a conservative estimate of 1.5 hours per assessment, this would represent around \$140,000 at the current applicable hourly rate of \$235 (GST inclusive), and would cost each levy payer (if a fee was attached) around \$350. For many levy payers this could be more than the levy reduction resulting from the assessment, particularly small domestic operators who pay in the hundreds, not thousands, in terms of levy contributions.

Another complexity in the consideration of a performance-based levy is that the basis on which the levy is paid varies between levy paying sectors. Some pay annually, and some pay per port visit. If levy rates were designed to go up or down (depending on performance) this would potentially mean refunds, different rates from one voyage to another, and the generation of more invoices than is currently necessary. This adds up to more administration for Maritime NZ, less certainty for operators, and generally more complexity in terms of how the Oil Pollution Levies Order would need to be drafted, administered, and complied with.

For potentially limited financial gain for levy payers, and by necessity a winners and losers framework (because a pre-determined quantum of levy revenue must be generated), we are of the view that a performance-based levy is not appropriate or beneficial in the Levy context.

We are however interested in your views on whether there should be further consideration given to this issue.

## **Oil Pollution Fund Reserves**

The decision was made to not specifically include a levy component to build up reserves because the Fund is expected to have a balance close to the amount of required reserves at 1 July 2016.

## How to submit

The deadline for making comments on the proposed Levy is **Thursday Friday 29 January 2016**.

Send your submissions to:

[oilpollution@maritimenz.govt.nz](mailto:oilpollution@maritimenz.govt.nz)

Or:

Oil Pollution Levy Consultation  
Maritime New Zealand  
PO Bo 25620  
Wellington 6146

We will acknowledge all submissions that we receive and once a final decision about levy rates has been made, a summary of submissions received will be placed on the Maritime NZ website.

Submissions should indicate whether it would be acceptable for officials from Maritime NZ to contact you to discuss your submission as required.

### **Submissions are public information**

Submissions are public information. Please indicate clearly if your comments are commercially sensitive, or if, for some other reason, you consider they should not be disclosed. In addition, if you are an individual (i.e. your comments are made personally and not on behalf of a company or an organisation) please indicate if you consider for some reason that your identity should not be disclosed.





## Appendix 1: Baseline operating expenditure

### Proposed Baseline operating expenditure 2016/17-2018/19

Item	Strategy and International	Planning	Exercises and training	Resources and equipment	Total (\$000)
Personnel	160	237	410	253	<b>1060</b>
Regional Council		330	220	300	<b>850</b>
MPRS Courses	150	50	290	0	<b>490</b>
Oiled Wildlife	65	85	85	230	<b>465</b>
Property	33	55	55	80	<b>223</b>
Travel	125	25	25	25	<b>200</b>
Consultancy	60	20	15	15	<b>110</b>
IT/Communications	35	35	40	25	<b>135</b>
Other Operating	20	20	20	18	<b>78</b>
Industry Engagement	20	15	11	0	<b>46</b>
NOSC	10	10	10	10	<b>40</b>
Vehicles	2	5	17	15	<b>39</b>
Training Development	10	15	25	10	<b>60</b>
Office Costs	10	12	12	10	<b>44</b>
Inter-Group Charge	100	200	200	190	<b>690</b>
Depreciation	0	0	0	640	<b>640</b>
<b>Total</b>	<b>800</b>	<b>1,114</b>	<b>1,435</b>	<b>1,821</b>	<b>5,170</b>



## Appendix 2: Operational and capital expenditure - Option A

OPERATIONAL EXPENDITURE – NEW							
Component and item	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	Total 2015/17 - 2021/22
<b>Equipment</b>							
Capability enhancement	197,500	197,500	197,500	197,500	197,500	197,500	
1&2. Modelling – subsea well-control incidents & chemicals/produced gas	50,000	50,000	50,000	50,000	50,000	50,000	
3&11. Aerial monitoring & dispersant application	125,000	125,000	125,000	125,000	125,000	125,000	
12. Dispersant effectiveness monitoring							
18. Contracts with vessel suppliers							
20. Logistical support							
Vessel maintenance, training, & compliance	22,500	22,500	22,500	22,500	22,500	22,500	
Additional maintenance							
<b>Total - additional equipment capability</b>	<b>197,500</b>	<b>197,500</b>	<b>197,500</b>	<b>197,500</b>	<b>197,500</b>	<b>197,500</b>	<b>1,185,000</b>
<b>Training</b>							
National Training Programme, comprising:	300,000	300,000	300,000	300,000	300,000	300,000	
Planning training	7,500	7,500	7,500	7,500	7,500	7,500	
Operations equipment training	140,000	140,000	140,000	140,000	140,000	140,000	
Operations management & coordination training	50,000	50,000	50,000	50,000	50,000	50,000	
Logistics training	102,500	102,500	102,500	102,500	102,500	102,500	
National On-Scene Commander							
Oiled Wildlife Contract, comprising:							
Training							
Overhead (114%)							
<b>Total - additional training capability</b>	<b>300,000</b>	<b>300,000</b>	<b>300,000</b>	<b>300,000</b>	<b>300,000</b>	<b>300,000</b>	<b>1,800,000</b>
<b>Exercise</b>							
Industry Exercise Programme, comprising:							
Offshore industry & fixed oil transfer sites exercises							
Offshore industry and fixed oil transfer sites workshop (2yrly)							
National exercise programme							
Basic table-top exercises with other govt agencies							
<b>Total - additional exercise capability</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Organisation</b>							
Health & safety							
Stakeholder and supplier management, comprising:							
Build engagement with iwi utilising regional council planning							
Australian engagement							
Other international engagement							
Information management							
Intelligence-led							
Knowledge building & sustainment; benchmarking							
Attendance at Clean Gulf - spill response in very cold regions							
<b>Total - additional organisation capability</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>People</b>							
Staff - salary							
Staff - overhead (20%)							
Environmental Advisor activities							
<b>Total - additional people capability</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>TOTAL OPERATIONAL EXPENDITURE - NEW</b>	<b>497,500</b>	<b>497,500</b>	<b>497,500</b>	<b>497,500</b>	<b>497,500</b>	<b>497,500</b>	<b>2,985,000</b>

<b>CAPITAL EXPENDITURE – NEW</b>							
<b>Component and item</b>	<b>2016/17</b>	<b>2017/18</b>	<b>2018/19</b>	<b>2019/20</b>	<b>2020/21</b>	<b>2021/22</b>	<b>Total 2015/17 - 2021/22</b>
<b>Equipment</b>	<i>Distribution across years revised (eg, so single items not split over years)</i>						
Asset replacement, comprising:	2,068,800	1,067,500	620,000	1,930,583	2,255,583	2,430,583	
<i>Asset replacement - equipment</i>	2,068,800	742,500	120,000	1,930,583	1,930,583	1,930,583	
<i>Asset replacement - dispersant</i>	–	325,000	500,000		325,000	500,000	
Capability enhancement							0
5. <i>Spill-tracking transponders</i>							
9. <i>Dispersant stockpile</i>							
12. <i>Dispersant effectiveness monitoring</i>							
13. <i>Inshore/shoreline</i>							
14. <i>Nearshore</i>							
15. <i>Coastal (includes 7)</i>							
17. <i>Oil recovery workboats</i>							
20. <i>Logistical support</i>							
Oiled wildlife contract - equipment upgrade							0
<b>Total equipment</b>	<b>2,068,800</b>	<b>1,067,500</b>	<b>620,000</b>	<b>1,930,583</b>	<b>2,255,583</b>	<b>2,430,583</b>	<b>10,373,049</b>
<hr/>							
<b>Training</b>							
Training equipment							
<b>Total training</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<hr/>							
<b>People</b>							
Infrastructure		0	0		0	0	
<b>Total people</b>		<b>0</b>	<b>0</b>		<b>0</b>	<b>0</b>	<b>0</b>
<hr/>							
<b>TOTAL ADDITIONAL CAPITAL EXPENDITURE</b>	<b>2,068,800</b>	<b>1,067,500</b>	<b>620,000</b>				<b>10,373,049</b>
<hr/>							
<b>TOTAL ADDITIONAL EXPENDITURE (OPEX AND CAPEX)</b>							<b>13,358,049</b>

# Appendix 3: Rates and sector shares - Option A

		2016/17	2017/18	2018/19	2019/20	2020/21	2021/22							
Total Revenue to be achieved		\$5,170,000	\$5,170,000	\$5,170,000	\$5,170,000	\$5,170,000	\$5,170,000							
Base Levy		\$1,350,000	\$1,350,000	\$1,350,000	\$1,350,000	\$1,350,000	\$1,350,000							
Capability Levy		\$0	\$0	\$0	\$0	\$0	\$0							
Reserve Levy		\$0	\$0	\$0	\$0	\$0	\$0							
Total OPL Levy		\$6,520,000	\$6,520,000	\$6,520,000	\$6,520,000	\$6,520,000	\$6,520,000							
<b>Output - Rates (in cents, GST Excl.)</b>														
<b>Foreign Vessels</b>														
<b>Passenger/Carpo/Oil Tankers</b>														
0.81000	Base Levy	0.2868	0.2768	0.2677	0.2626	0.2575	0.2526	0.2674	-0.5426	-67.0%	\$540,656	\$590,603	\$602,181	\$614,011
0.07000	Capability Levy	0.0749	0.0723	0.0699	0.0686	0.0672	0.0660	0.0698	-0.0002	-0.3%	\$141,177	\$151,260	\$157,243	\$160,332
0.12000	Capital Expenditure Levy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	-0.1200	-100.0%	\$0	\$0	\$0	\$0
0.00000	Reserve Levy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	100.0%	\$0	\$0	\$0	\$0
1.00000	Total	0.3617	0.3491	0.3376	0.3312	0.3248	0.3185	0.3372	-0.6628	-66.3%	\$881,834	\$730,532	\$759,423	\$774,343
<b>Oil Tankers - Persistent Oil</b>														
29.99000	Base Levy	34.6496	33.8013	32.9620	32.3358	31.7151	31.1003	32.7607	2.7707	9.2%	\$2,168,339	\$2,222,757	\$2,279,352	\$2,323,497
2.67000	Capability Levy	9.0478	8.8263	8.6071	8.4436	8.2815	8.1210	8.5545	5.8845	220.4%	\$566,201	\$580,411	\$595,189	\$606,716
4.17000	Capital Expenditure Levy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	-4.1700	-100.0%	\$0	\$0	\$0	\$0
0.00000	Reserve Levy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	100.0%	\$0	\$0	\$0	\$0
36.83000	Total	43.6974	42.6276	39.2213	0.0000	0.0000	0.0000	41.3152	4.4852	12.2%	\$2,734,540	\$2,803,168	\$2,874,541	\$2,930,212
<b>Oil Tankers - Non Persistent Oil</b>														
6.72000	Base Levy	14.8710	14.3985	13.9378	13.5985	13.2659	12.9398	13.8353	7.1153	105.9%	\$693,733	\$716,501	\$740,181	\$758,651
0.60000	Capability Levy	3.8832	3.7598	3.6395	3.5509	3.4640	3.3789	3.6127	3.0127	502.1%	\$181,149	\$187,094	\$193,277	\$198,100
0.93000	Capital Expenditure Levy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	-0.9300	-100.0%	\$0	\$0	\$0	\$0
0.00000	Reserve Levy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	100.0%	\$0	\$0	\$0	\$0
8.25000	Total	18.7542	18.1582	17.5773	17.1494	16.7299	16.3187	17.4479	9.1979	111.5%	\$874,882	\$903,596	\$933,458	\$956,751
<b>Domestic Vessels</b>														
<b>Passenger/Carpo/etc</b>														
301.81000	Base Levy	305.4565	294.0016	282.4139	270.7363	259.0131	247.2900	276.4852	-25.3248	-8.4%	\$485,747	\$504,673	\$525,380	\$548,041
26.83000	Capability Levy	79.7814	76.7702	73.7444	70.6952	67.6340	64.5728	72.1963	45.3663	169.1%	\$126,839	\$131,781	\$137,188	\$143,106
41.99000	Capital Expenditure Levy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	-41.9900	-100.0%	\$0	\$0	\$0	\$0
0.00000	Reserve Levy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	100.0%	\$0	\$0	\$0	\$0
370.63000	Total	385.2179	370.7718	356.1583	341.4314	326.6471	311.8628	348.6816	-21.9464	-3.9%	\$612,587	\$636,454	\$662,569	\$691,147
<b>Oil Tankers - Persistent Oil</b>														
73.91000	Base Levy	42.3275	40.3119	38.3923	37.2741	36.1884	35.1344	38.2714	-35.6386	-48.2%	\$229,054	\$240,507	\$252,532	\$260,108
6.57000	Capability Levy	11.0526	10.5263	10.0251	9.7331	9.4496	9.1744	9.9935	3.4235	52.1%	\$59,811	\$62,802	\$65,942	\$67,920
10.29000	Capital Expenditure Levy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	-10.2900	-100.0%	\$0	\$0	\$0	\$0
0.00000	Reserve Levy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	100.0%	\$0	\$0	\$0	\$0
90.77000	Total	53.3801	50.8382	48.4173	47.0071	45.6380	44.3087	48.2649	-42.5051	-46.8%	\$288,866	\$303,309	\$318,474	\$328,028
<b>Oil Tankers - Non Persistent Oil</b>														
10.29000	Base Levy	41.3133	40.5033	39.7091	38.9305	38.1671	37.4188	39.3403	29.0503	282.3%	\$675,449	\$688,958	\$702,737	\$716,792
0.92000	Capability Levy	10.7878	10.5763	10.3689	10.1656	9.9663	9.7709	10.2726	9.3526	1016.6%	\$176,374	\$179,902	\$183,500	\$187,170
18.62000	Capital Expenditure Levy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	-1.4300	-100.0%	\$0	\$0	\$0	\$0
0.00000	Reserve Levy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	100.0%	\$0	\$0	\$0	\$0
12.64000	Total	52.1011	51.0796	50.0780	49.0961	48.1334	47.1896	49.6150	36.9730	292.5%	\$851,823	\$868,860	\$886,237	\$903,962
<b>NZ Fishing Vessel</b>														
133.49000	Base Levy	64.4154	64.4154	64.4154	64.4154	64.4154	64.4154	64.4154	-69.0746	-51.7%	\$46,530	\$46,530	\$46,530	\$46,530
11.90000	Capability Levy	16.8203	16.8203	16.8203	16.8203	16.8203	16.8203	16.8203	4.9203	41.3%	\$12,150	\$12,150	\$12,150	\$12,150
18.62000	Capital Expenditure Levy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	-18.6200	-100.0%	\$0	\$0	\$0	\$0
0.00000	Reserve Levy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	100.0%	\$0	\$0	\$0	\$0
164.01000	Total	81.2356	81.2356	81.2356	81.2356	81.2356	81.2356	81.2356	-82.7744	-50.5%	\$58,680	\$58,680	\$58,680	\$58,680
<b>Movement in Revenue</b>														
2020/21														
2019/20														
2020/21														
2021/22														

Current Rates	Output - Rates (in cents, GST Excl.)						New Rates (Average) Revenue Generated on forecasted Gross Tonnes								
	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	Average New Rates	Avg Rate Incr (Decr)	% Incr (Decr)	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
<b>Platforms</b>															
888,889.0000	3420.2000	3420.2000	3420.2000	3420.2000	3420.2000	3420.2000	3,420.2000	-885,468.8000	-99.6%	\$171	\$171	\$171	\$171	\$171	\$171
10,700.0000	893.2000	893.2000	893.2000	893.2000	893.2000	893.2000	893.2000	-9,806.8000	-91.7%	\$45	\$45	\$45	\$45	\$45	\$45
17,400.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	-17,400.0000	-100.0%	\$0	\$0	\$0	\$0	\$0	\$0
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	100.0%	\$0	\$0	\$0	\$0	\$0	\$0
916,989.0000	43,1340	43,1340	43,1340	43,1340	43,1340	43,1340	4,313.4000	-912,675.6000	-99.5%	\$216	\$216	\$216	\$216	\$216	\$216
										-\$45,634	-\$45,634	-\$45,634	-\$45,634	-\$45,634	-\$45,634
<b>EPSOS</b>															
8,518,600.0000	238,908.5000	238,908.5000	238,908.5000	238,908.5000	238,908.5000	238,908.5000	238,908.5000	-8,279,691.5000	-97.2%	\$4,778	\$4,778	\$4,778	\$4,778	\$4,778	\$4,778
754,800.0000	62,384.5000	62,384.5000	62,384.5000	62,384.5000	62,384.5000	62,384.5000	62,384.5000	-692,415.5000	-91.7%	\$1,248	\$1,248	\$1,248	\$1,248	\$1,248	\$1,248
1,226,600.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	-1,226,600.0000	-100.0%	\$0	\$0	\$0	\$0	\$0	\$0
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	100.0%	\$0	\$0	\$0	\$0	\$0	\$0
10,500,000.0000	301,293.0000	301,293.0000	301,293.0000	301,293.0000	301,293.0000	301,293.0000	3,012,930.0000	-10,198,707.0000	-97.1%	\$6,026	\$6,026	\$6,026	\$6,026	\$6,026	\$6,026
										-\$203,974	-\$203,974	-\$203,974	-\$203,974	-\$203,974	-\$203,974
<b>Pipelines</b>															
888,889.0000	2,744.0000	2,744.0000	2,744.0000	2,744.0000	2,744.0000	2,744.0000	2,744.0000	-886,145.0000	-99.7%	\$110	\$110	\$110	\$110	\$110	\$110
8,600.0000	716.5000	716.5000	716.5000	716.5000	716.5000	716.5000	716.5000	-7,883.5000	-91.7%	\$29	\$29	\$29	\$29	\$29	\$29
14,000.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	-14,000.0000	-100.0%	\$0	\$0	\$0	\$0	\$0	\$0
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	100.0%	\$0	\$0	\$0	\$0	\$0	\$0
911,489.0000	3,460.5000	3,460.5000	3,460.5000	3,460.5000	3,460.5000	3,460.5000	3,460.5000	-908,028.5000	-99.6%	\$138	\$138	\$138	\$138	\$138	\$138
										-\$36,321	-\$36,321	-\$36,321	-\$36,321	-\$36,321	-\$36,321
<b>Exploration Wells</b>															
888,889.0000	383.0000	383.0000	383.0000	383.0000	383.0000	383.0000	383.0000	-888,506.0000	-100.0%	\$8	\$8	\$8	\$8	\$8	\$8
2,400.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000	-2,300.0000	-95.8%	\$2	\$2	\$2	\$2	\$2	\$2
3,900.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	-3,900.0000	-100.0%	\$0	\$0	\$0	\$0	\$0	\$0
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	100.0%	\$0	\$0	\$0	\$0	\$0	\$0
895,189.0000	483.0000	483.0000	483.0000	483.0000	483.0000	483.0000	483.0000	-894,706.0000	-99.9%	\$10	\$10	\$10	\$10	\$10	\$10
										-\$17,894	-\$17,894	-\$17,894	-\$17,894	-\$17,894	-\$17,894
										\$6,109,600	\$6,286,909	\$6,470,881	\$6,619,993	\$6,775,129	\$6,936,646

Total for 6 years based on average rates  
Per Budget \$39,199,156  
Variance due to using average rates \$39,120,000  
\$79,156

## Comparison of sector risk profiles and contribution, current and proposed Levy - Option A

Sector	2012 Sector Share (%) [1]	Total Levy per annum, 13/14-15/16 using 2012 Sector Share \$ [2]	Sector Share (%) based on MOSRA 2015 [3]	Option A Proposed Base Levy \$	Option A Proposed Capability Levy \$	Option A Proposed Total Levy \$	\$ Levy Change
Domestic Passenger, Cargo, and Tanker Bunker Fuel	13.125	721,322.66	10.380	536,646.00	140,752.80	677,399	-43,924
Domestic Tankers - Oil as Cargo (total)	10.375	570,188.39	18.620	962,654.00	252,487.20	1,215,141	644,953
Persistent	6.375	350,356.72	4.900	253,330.00	66,444.00	319,774	-30,583
Non Persistent	4.000	219,831.67	13.720	709,324.00	186,043.20	895,367	675,536
NZ Fishing	2.500	137,394.79	0.900	46,530.00	12,204.00	58,734	-78,661
Foreign Passenger and Cargo, Foreign Tanker Bunker Fuel	28.640	1,573,994.73	11.220	580,074.00	152,143.20	732,217	-841,778
Foreign Tankers - Oil as Cargo (total)	41.360	2,273,059.43	58.782	3,039,029.40	797,083.92	3,836,113	1,563,054
Persistent oil	34.320	1,886,155.70	44.359	2,293,360.30	601,508.04	2,894,868	1,008,713
Non-persistent oil	7.040	386,903.73	14.423	745,669.10	195,575.88	941,245	554,341
<b>Off-shore Oil and Gas - total</b>	<b>4.000</b>	<b>250,373.00</b>	<b>0.098</b>	<b>5,066.60</b>	<b>1,328.88</b>	<b>6,395</b>	<b>-243,978</b>
Platforms	0.134	44,445.00	0.003	155.10	40.68	196	-44,249
FPSOs	3.744	170,372.00	0.092	4,756.40	1,247.52	6,004	-164,368
Pipelines	0.086	35,556.00	0.002	103.40	27.12	131	-35,425
Exploration Well	0.006	0.00	0.000	5.17	1.36	7	7
<b>Total</b>		<b>5,526,333.00</b>	<b>100.000</b>	<b>5,170,000.00</b>	<b>1,356,000.00</b>	<b>6,526,000</b>	<b>999,667</b>

[1] Based on 2012 MOSRA Sector Risk Share report as modified in order to reflect approach to bunker share of risk for domestic and foreign tankers. Fixed rates for off-shore oil and gas.

[2] GST excl. Based on modelled base levy requirement.

[3] Modified in regards to bunker share of risk for domestic and foreign tankers as per 2012 Consultation and Levy Order 2013.

## Appendix 4: Operational and capital expenditure - Option B

OPERATIONAL EXPENDITURE – NEW							
Component and item	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	Total 2015/17 - 2021/22
<b>Equipment</b>							
Capability enhancement	262,500	366,300	377,250	377,250	377,250	377,250	
1&2. Modelling – subsea well-control incidents & chemicals/produced gas	50,000	50,000	50,000	50,000	50,000	50,000	
3&11. Aerial monitoring & dispersant application	125,000	125,000	125,000	125,000	125,000	125,000	
12. Dispersant effectiveness monitoring	–	–	–	–	–	–	
18. Contracts with vessel suppliers	–	90,000	90,000	90,000	90,000	90,000	
20. Logistical support	30,000	30,000	30,000	30,000	30,000	30,000	
Vessel maintenance, training, & compliance	22,500	22,500	22,500	22,500	22,500	22,500	
Additional maintenance	35,000	48,800	59,750	59,750	59,750	59,750	
<b>Total - additional equipment capability</b>	<b>262,500</b>	<b>366,300</b>	<b>377,250</b>	<b>377,250</b>	<b>377,250</b>	<b>377,250</b>	<b>2,137,800</b>
<b>Training</b>							
National Training Programme, comprising:	300,000	300,000	300,000	300,000	300,000	300,000	
Planning training	58,000	58,000	58,000	58,000	58,000	58,000	
Operations equipment training	116,000	116,000	116,000	116,000	116,000	116,000	
Operations management & coordination training	58,000	58,000	58,000	58,000	58,000	58,000	
Logistics training	68,000	68,000	68,000	68,000	68,000	68,000	
National On-Scene Commander	–	–	14,400	14,400	14,400	14,400	
Oiled Wildlife Contract, comprising:	154,080	154,080	154,080	154,080	154,080	154,080	
Training	72,000	72,000	72,000	72,000	72,000	72,000	
Overhead (114%)	82,080	82,080	82,080	82,080	82,080	82,080	
<b>Total - additional training capability</b>	<b>454,080</b>	<b>454,080</b>	<b>468,480</b>	<b>468,480</b>	<b>468,480</b>	<b>468,480</b>	<b>2,782,080</b>
<b>Exercise</b>							
Industry Exercise Programme, comprising:	4,000	40,000	4,000	4,000	40,000	4,000	
Offshore industry & fixed oil transfer sites exercises	4,000	4,000	4,000	4,000	4,000	4,000	
Offshore industry and fixed oil transfer sites workshop (2yrlly)	–	36,000	–	–	36,000	–	
National exercise programme	75,000	75,000	75,000	100,800	100,800	100,800	
Basic table-top exercises with other govt agencies	–	20,000	–	–	20,000	–	
<b>Total - additional exercise capability</b>	<b>79,000</b>	<b>135,000</b>	<b>79,000</b>	<b>104,800</b>	<b>160,800</b>	<b>104,800</b>	<b>663,400</b>
<b>Organisation</b>							
Health & safety	9,200	–	4,000	10,000	10,000	10,000	
Stakeholder and supplier management, comprising:	26,500	40,500	26,500	26,500	40,500	26,500	
Build engagement with iwi utilising regional council planning	–	14,000	–	–	14,000	–	
Australian engagement	12,500	12,500	12,500	12,500	12,500	12,500	
Other international engagement	14,000	14,000	14,000	14,000	14,000	14,000	
Information management	25,000	25,000	25,000	50,000	50,000	50,000	
Intelligence-led	65,000	65,000	65,000	76,590	76,590	76,590	
Knowledge building & sustainment; benchmarking	50,000	50,000	50,000	61,590	61,590	61,590	
Attendance at Clean Gulf - spill response in very cold regions	15,000	15,000	15,000	15,000	15,000	15,000	
<b>Total - additional organisation capability</b>	<b>125,700</b>	<b>130,500</b>	<b>120,500</b>	<b>163,090</b>	<b>177,090</b>	<b>163,090</b>	<b>879,970</b>
<b>People</b>							
Staff - salary	80,000	80,000	80,000	82,400	84,872	87,418	
Staff - overhead (20%)	16,000	16,000	16,000	16,480	16,974	17,484	
Environmental Advisor activities	0	0	0	0	0	0	
<b>Total - additional people capability</b>	<b>96,000</b>	<b>96,000</b>	<b>96,000</b>	<b>98,880</b>	<b>101,846</b>	<b>104,902</b>	<b>593,628</b>
<b>TOTAL OPERATIONAL EXPENDITURE - NEW</b>	<b>1,017,280</b>	<b>1,181,880</b>	<b>1,141,230</b>	<b>1,212,500</b>	<b>1,285,466</b>	<b>1,218,522</b>	<b>7,056,878</b>



**CAPITAL EXPENDITURE – NEW**

Component and item	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	Total 2015/17 - 2021/22
<b>Equipment</b>							
Asset replacement, comprising:	2,068,800	1,067,500	620,000	1,930,583	2,255,583	2,430,583	10,373,049
Asset replacement - equipment	2,068,800	742,500	120,000	1,930,583	1,930,583	1,930,583	
Asset replacement - dispersant	–	325,000	500,000	–	325,000	500,000	
Capability enhancement	875,000	1,220,000	375,000	0	0	0	2,470,000
5. Spill-tracking transponders	–	–	–	–	–	–	
9. Dispersant stockpile	–	–	–	–	–	–	
12. Dispersant effectiveness monitoring	–	–	–	–	–	–	
13. Inshore/shoreline	700,000	–	–	–	–	–	
14. Nearshore	–	–	325,000	–	–	–	
15. Coastal (includes 7)	–	1,170,000	–	–	–	–	
17. Oil recovery workboats	125,000	–	–	–	–	–	
20. Logistical support	50,000	50,000	50,000	–	–	–	
Oiled wildlife contract - equipment upgrade	17,500	–	–	–	–	–	17,500
<b>Total equipment</b>	<b>2,961,300</b>	<b>2,287,500</b>	<b>995,000</b>				<b>12,860,549</b>
<b>Training</b>							
Training equipment	40,000	5,000	5,000	5,000	5,000	5,000	
<b>Total training</b>	<b>40,000</b>	<b>5,000</b>	<b>5,000</b>	<b>5,000</b>	<b>5,000</b>	<b>5,000</b>	<b>65,000</b>
<b>People</b>							
Infrastructure	25,000	0	0	0	0	0	
<b>Total people</b>	<b>25,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>25,000</b>
<b>TOTAL ADDITIONAL CAPITAL EXPENDITURE</b>	<b>3,026,300</b>	<b>2,292,500</b>	<b>1,000,000</b>				<b>12,950,549</b>
<b>TOTAL ADDITIONAL EXPENDITURE (OPEX AND CAPEX)</b>							<b>20,007,427</b>

# Appendix 5: Rates and sector shares - Option B

Total Revenue to be achieved		2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
Base Levy	\$5,170,000	\$5,170,000	\$5,170,000	\$5,170,000	\$5,170,000	\$5,170,000	\$5,170,000
Capacity Levy	\$2,400,000	\$2,400,000	\$2,400,000	\$2,400,000	\$2,400,000	\$2,400,000	\$2,400,000
Reserve Levy	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Total OPL Levy</b>	<b>\$7,570,000</b>	<b>\$7,570,000</b>	<b>\$7,570,000</b>	<b>\$7,570,000</b>	<b>\$7,570,000</b>	<b>\$7,570,000</b>	<b>\$7,570,000</b>
<b>Output - Rates (in cents, GST Excl)</b>							
Current Rates	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	
<b>Foreign Vessels</b>							
<b>Passenger/Caraco/Oil Tankers</b>							
0.8100 Base Levy	0.2868	0.2768	0.2877	0.2826	0.2875	0.2526	
0.0700 Capacity Levy	0.1332	0.1285	0.1243	0.1219	0.1196	0.1173	
0.1200 Capital Expenditure Levy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
0.0000 Reserve Levy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
1.0000 Total	0.4200	0.4054	0.3920	0.3945	0.3771	0.3698	
<b>OIL Tankers - Persistent OIL</b>							
29.9900 Base Levy	34.6496	33.8013	32.9620	32.3358	31.7151	31.1003	
2.6700 Capacity Levy	16.0849	15.6911	15.3015	15.0108	14.7227	14.4373	
4.1700 Capital Expenditure Levy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
0.0000 Reserve Levy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
36.8300 Total	50.7345	49.4924	48.5376	47.3466	46.4221	45.5373	
<b>OIL Tankers - Non Persistent OIL</b>							
6.7200 Base Levy	14.8710	14.3985	13.9378	13.5985	13.2859	12.9398	
0.6000 Capacity Levy	6.9034	6.6840	6.4702	6.3127	6.1582	6.0069	
0.9300 Capital Expenditure Levy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
0.0000 Reserve Levy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
8.2500 Total	21.7744	21.0825	20.4080	19.9112	19.4241	18.9467	
<b>Domestic Vessels</b>							
<b>Passenger/Caraco/Leir</b>							
301.8100 Base Levy	305.4565	294.0016	282.4139	270.7363	259.0131	247.2900	
26.8300 Capacity Levy	141.7980	136.4804	131.1012	125.6803	120.2382	114.7961	
41.9900 Capital Expenditure Levy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
0.0000 Reserve Levy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
370.6300 Total	447.2545	430.4820	413.5151	396.4165	379.2513	362.0861	
<b>OIL Tankers - Persistent OIL</b>							
73.9100 Base Levy	42.3275	40.3119	38.3923	37.2741	36.1884	35.1344	
6.5700 Capacity Levy	19.6491	18.7135	17.8223	17.3032	16.7993	16.3100	
10.2900 Capital Expenditure Levy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
0.0000 Reserve Levy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
90.7700 Total	61.9766	59.0253	56.2146	54.5773	52.9877	51.4443	
<b>OIL Tankers - Non Persistent OIL</b>							
10.2900 Base Levy	41.3133	40.5033	39.7091	38.9305	38.1671	37.4188	
0.9200 Capacity Levy	19.1783	18.8023	18.4336	18.0722	17.7178	17.3704	
1.4300 Capital Expenditure Levy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
0.0000 Reserve Levy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
12.6400 Total	60.4917	59.3056	58.1427	57.0026	55.8849	54.7892	
<b>NZ Fishing Vessel</b>							
133.4900 Base Levy	64.4154	64.4154	64.4154	64.4154	64.4154	64.4154	
11.9000 Capacity Levy	29.9027	29.9027	29.9027	29.9027	29.9027	29.9027	
18.6200 Capital Expenditure Levy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
0.0000 Reserve Levy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
164.0100 Total	94.3181	94.3181	94.3181	94.3181	94.3181	94.3181	

	Average New Rates		Avg Rate		%		Revenue Generated on forecasted Gross Tonnes						
	Incr	(Decr)	Incr	(Decr)	Incr	(Decr)	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	
Passenger/Caraco/Oil Tankers	0.2674	-0.5426	-0.5426	-67.0%			\$540,656	\$660,178	\$579,272	\$590,603	\$602,181	\$614,011	
Oil Tankers - Persistent OIL	0.1241	0.0541	0.0541	77.3%			\$250,982	\$260,044	\$268,908	\$274,168	\$279,542	\$285,034	
Oil Tankers - Non Persistent OIL	0.0000	-0.1200	-0.1200	-100.0%			\$0	\$0	\$0	\$0	\$0	\$0	
Domestic Vessels	0.0000	0.0000	0.0000	100.0%			\$0	\$0	\$0	\$0	\$0	\$0	
Domestic Fishing Vessel	0.3915	-0.6085	-0.6085	-60.9%			\$791,638	\$820,222	\$848,179	\$864,770	\$881,723	\$899,045	
		Movement in Revenue					-\$1,230,611	-\$1,275,044	-\$1,318,504	-\$1,344,296	-\$1,370,648	-\$1,397,576	
	32.7607	2.7707	9.2%				\$2,168,339	\$2,222,757	\$2,279,352	\$2,332,497	\$2,386,965	\$2,415,798	
	15.2081	12.5381	469.6%				\$1,006,579	\$1,031,841	\$1,058,113	\$1,078,606	\$1,099,713	\$1,121,454	
	0.0000	-4.1700	-100.0%				\$0	\$0	\$0	\$0	\$0	\$0	
	47.9688	11.1388	30.2%				\$3,174,918	\$3,254,598	\$3,337,466	\$3,402,102	\$3,468,678	\$3,537,251	
		Movement in Revenue					\$737,243	\$755,746	\$774,988	\$789,997	\$805,457	\$821,380	
	13.8353	7.1153	105.9%				\$693,733	\$716,501	\$740,181	\$758,651	\$777,675	\$797,269	
	6.4226	5.8226	970.4%				\$322,042	\$332,612	\$343,604	\$352,178	\$361,010	\$370,106	
	0.0000	-0.9300	-100.0%				\$0	\$0	\$0	\$0	\$0	\$0	
	20.2578	12.0078	145.5%				\$1,015,775	\$1,049,113	\$1,083,785	\$1,110,829	\$1,138,684	\$1,167,375	
		Movement in Revenue					\$602,100	\$621,862	\$642,413	\$658,443	\$674,955	\$691,961	
Passenger/Caraco/Leir	276.4852	-25.3248	-8.4%				\$485,747	\$504,673	\$525,380	\$548,041	\$572,846	\$600,003	
Oil Tankers - Persistent OIL	128.3490	101.5190	378.4%				\$225,492	\$234,278	\$243,980	\$254,410	\$265,925	\$278,531	
Oil Tankers - Non Persistent OIL	0.0000	-41.9900	-100.0%				\$0	\$0	\$0	\$0	\$0	\$0	
Domestic Vessels	404.8343	34.2043	9.2%				\$711,239	\$738,951	\$769,271	\$802,451	\$838,771	\$878,534	
		Movement in Revenue					\$60,092	\$62,434	\$64,995	\$67,799	\$70,867	\$74,227	
Domestic Fishing Vessel	38.2714	-35.6386	-48.2%				\$229,054	\$240,507	\$252,532	\$267,108	\$279,912	\$295,949	
Oil Tankers - Persistent OIL	17.7662	11.1962	170.4%				\$106,331	\$111,647	\$117,230	\$120,747	\$124,369	\$128,100	
Oil Tankers - Non Persistent OIL	0.0000	-10.2900	-100.0%				\$0	\$0	\$0	\$0	\$0	\$0	
Domestic Vessels	56.0376	-34.7324	-38.3%				\$335,385	\$352,155	\$369,762	\$380,655	\$392,281	\$404,049	
		Movement in Revenue					-\$207,873	-\$218,267	-\$229,180	-\$238,056	-\$245,137	-\$250,431	
Domestic Fishing Vessel	39.3403	29.0503	282.3%				\$675,449	\$688,958	\$702,737	\$716,792	\$731,128	\$745,750	
Oil Tankers - Persistent OIL	18.2624	17.3424	1885.0%				\$313,555	\$319,826	\$326,222	\$332,747	\$339,402	\$346,190	
Oil Tankers - Non Persistent OIL	0.0000	-1.4300	-100.0%				\$0	\$0	\$0	\$0	\$0	\$0	
Domestic Vessels	57.6028	44.9628	355.7%				\$989,004	\$1,008,784	\$1,028,959	\$1,049,539	\$1,070,529	\$1,091,940	
		Movement in Revenue					\$771,983	\$787,422	\$803,171	\$819,234	\$835,619	\$852,331	
Domestic Fishing Vessel	64.4154	-69.0746	-51.7%				\$46,530	\$46,530	\$46,530	\$46,530	\$46,530	\$46,530	
Oil Tankers - Persistent OIL	29.9027	18.0027	151.3%				\$21,600	\$21,600	\$21,600	\$21,600	\$21,600	\$21,600	
Oil Tankers - Non Persistent OIL	0.0000	-18.6200	-100.0%				\$0	\$0	\$0	\$0	\$0	\$0	
Domestic Vessels	94.3181	-69.6919	-42.5%				\$68,130	\$68,130	\$68,130	\$68,130	\$68,130	\$68,130	
		Movement in Revenue					-\$50,341	-\$50,341	-\$50,341	-\$50,341	-\$50,341	-\$50,341	

Current Rates	Output - Rates (in cents, GST Excl)						New Rates (Average) Revenue Generated on forecasted Gross Tonnes					
	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
<b>Platforms</b>												
888,889,000.00	3420,2000	3420,2000	3420,2000	3420,2000	3420,2000	3420,2000	171	171	171	171	171	171
10,700,000.00	1587,8000	1587,8000	1587,8000	1587,8000	1587,8000	1587,8000	\$79	\$79	\$79	\$79	\$79	\$79
17,400,000.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	\$0	\$0	\$0	\$0	\$0	\$0
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	\$0	\$0	\$0	\$0	\$0	\$0
916,989,000.00	50,0800	50,0800	50,0800	50,0800	50,0800	50,0800	\$250	\$250	\$250	\$250	\$250	\$250
							-\$45,599	-\$45,599	-\$45,599	-\$45,599	-\$45,599	-\$45,599
<b>EPSCS</b>												
8,518,600,000.00	238,908,5000	238,908,5000	238,908,5000	238,908,5000	238,908,5000	238,908,5000	\$4,778	\$4,778	\$4,778	\$4,778	\$4,778	\$4,778
754,600,000.00	110,905,5000	110,905,5000	110,905,5000	110,905,5000	110,905,5000	110,905,5000	\$2,218	\$2,218	\$2,218	\$2,218	\$2,218	\$2,218
1,226,600,000.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	\$0	\$0	\$0	\$0	\$0	\$0
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	\$0	\$0	\$0	\$0	\$0	\$0
10,500,000,000.00	349,814,0000	349,814,0000	349,814,0000	349,814,0000	349,814,0000	349,814,0000	\$6,996	\$6,996	\$6,996	\$6,996	\$6,996	\$6,996
							-\$203,004	-\$203,004	-\$203,004	-\$203,004	-\$203,004	-\$203,004
<b>Pipelines</b>												
888,889,000.00	2,744,000	2,744,000	2,744,000	2,744,000	2,744,000	2,744,000	\$110	\$110	\$110	\$110	\$110	\$110
8,600,000.00	1,273,750	1,273,750	1,273,750	1,273,750	1,273,750	1,273,750	\$51	\$51	\$51	\$51	\$51	\$51
14,000,000.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	\$0	\$0	\$0	\$0	\$0	\$0
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	\$0	\$0	\$0	\$0	\$0	\$0
911,489,000.00	4,017,7500	4,017,7500	4,017,7500	4,017,7500	4,017,7500	4,017,7500	\$161	\$161	\$161	\$161	\$161	\$161
							-\$36,299	-\$36,299	-\$36,299	-\$36,299	-\$36,299	-\$36,299
<b>Exploration Wells</b>												
888,889,000.00	383,000	383,000	383,000	383,000	383,000	383,000	\$8	\$8	\$8	\$8	\$8	\$8
2,400,000.00	177,500	177,500	177,500	177,500	177,500	177,500	\$4	\$4	\$4	\$4	\$4	\$4
3,900,000.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	\$0	\$0	\$0	\$0	\$0	\$0
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	\$0	\$0	\$0	\$0	\$0	\$0
895,189,000.00	560,5000	560,5000	560,5000	560,5000	560,5000	560,5000	\$11	\$11	\$11	\$11	\$11	\$11
							-\$17,893	-\$17,893	-\$17,893	-\$17,893	-\$17,893	-\$17,893
							\$7,093,508	\$7,299,371	\$7,512,971	\$7,686,096	\$7,866,215	\$8,053,743

Total for 6 years based on average rates  
Per Budget \$45,511,904  
Variance due to using average rates \$45,420,000  
\$91,904

## Comparison of sector risk profiles and contribution, current and proposed Levy - Option B

Sector	2012 Sector Share (%) [1]	Total Levy per annum, 13/14-15/16 using 2012 Sector Share \$ [2]	Sector Share (%) based on MOSRA 2015 [3]	Option B Proposed Base Levy \$	Option B Proposed Capability Levy \$	Option B Proposed Total Levy \$	\$ Levy Change
Domestic Passenger, Cargo, and Tanker Bunker Fuel	13.125	721,322.66	10.380	536,646.00	246,109.80	782,756	61,433
Domestic Tankers - Oil as Cargo (total)	10.375	570,188.39	18.620	962,654.00	441,480.20	1,404,134	833,946
Persistent	6.375	350,356.72	4.900	253,330.00	116,179.00	369,509	19,152
Non Persistent	4.000	219,831.67	13.720	709,324.00	325,301.20	1,034,625	814,794
NZ Fishing	2.500	137,394.79	0.900	46,530.00	21,339.00	67,869	-69,526
Foreign Passenger and Cargo, Foreign Tanker Bunker Fuel	28.640	1,573,994.73	11.220	580,074.00	266,026.20	846,100	-727,895
Foreign Tankers - Oil as Cargo (total)	41.360	2,273,059.43	58.782	3,039,029.40	1,393,721.22	4,432,751	2,159,691
Persistent oil	34.320	1,886,155.70	44.359	2,293,360.30	1,051,751.89	3,345,112	1,458,956
Non-persistent oil	7.040	386,903.73	14.423	745,669.10	341,969.33	1,087,638	700,735
<b>Off-shore Oil and Gas - total</b>	<b>4.000</b>	<b>250,373.00</b>	<b>0.098</b>	<b>5,066.60</b>	<b>2,323.58</b>	<b>7,390</b>	<b>-242,983</b>
Platforms	0.134	44,445.00	0.003	155.10	71.13	226	-44,219
FPSOs	3.744	170,372.00	0.092	4,802.93	2,202.66	7,006	-163,366
Pipelines	0.086	35,556.00	0.002	103.40	47.42	151	-35,405
Exploration Well	0.006	0.00	0.000	5.17	2.37	8	8
<b>Total</b>		<b>5,526,333.00</b>	<b>100.000</b>	<b>5,170,000.00</b>	<b>2,371,000.00</b>	<b>7,541,000</b>	<b>2,014,667</b>

[1] Based on 2012 MOSRA Sector Risk Share report as modified in order to reflect approach to bunker share of risk for domestic and foreign tankers. Fixed rates for off-shore oil and gas.

[2] GST excl. Based on modelled base levy requirement.

[3] Modified in regards to bunker share of risk for domestic and foreign tankers as per 2012 Consultation and Levy Order 2013.

## Appendix 6: Operational and capital expenditure - Option C

OPERATIONAL EXPENDITURE – NEW							
Component and item	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	TOTAL 2016/7 - 2021/22
<b>Equipment</b>							
Capability enhancement	341,500	445,300	456,250	456,250	456,250	456,250	
1&2. Modelling – subsea well-control incidents & chemicals/produced gas	50,000	50,000	50,000	50,000	50,000		50000
3&11. Aerial monitoring & dispersant application	194,000	194,000	194,000	194,000	194,000		194000
12. Dispersant effectiveness monitoring	–						
18. Contracts with vessel suppliers		90,000	90,000	90,000	90,000		90000
20. Logistical support	40,000	40,000	40,000	40,000	40,000		40000
Vessel maintenance, training, & compliance	22,500	22,500	22,500	22,500	22,500		22500
Additional maintenance	35,000	48,800	59,750	59,750	59,750		59750
<b>Total - additional equipment capability</b>	<b>341,500</b>	<b>445,300</b>	<b>456,250</b>	<b>456,250</b>	<b>456,250</b>	<b>456,250</b>	<b>2,611,800</b>
<b>Training</b>							
National Training Programme, comprising:	300,000	300,000	300,000	300,000	300,000	300,000	
Planning training	58,000	58,000	58,000	58,000	58,000		58000
Operations equipment training	116,000	116,000	116,000	116,000	116,000		116000
Operations management & coordination training	58,000	58,000	58,000	58,000	58,000		58000
Logistics training	68,000	68,000	68,000	68,000	68,000		68000
National On-Scene Commander	–	–	14,400	14,400	14,400		14400
Oiled Wildlife Contract, comprising:	206,510	206,510	206,510	206,510	206,510		206510
Training	96,500	96,500	96,500	96,500	96,500		96500
Overhead (114%)	110,010	110,010	110,010	110,010	110,010		110010
<b>Total - additional training capability</b>	<b>506,510</b>	<b>506,510</b>	<b>520,910</b>	<b>520,910</b>	<b>520,910</b>	<b>520,910</b>	<b>3,096,660</b>
<b>Exercise</b>							
Industry Exercise Programme, comprising:	4,000	40,000	4,000	4,000	40,000		4000
Offshore industry & fixed oil transfer sites exercises	4,000	4,000	4,000	4,000	4,000		4000
Offshore industry and fixed oil transfer sites workshop (2yrly)	–	36,000	–	–	36,000		–
National exercise programme	100,800	100,800	100,800	100,800	100,800		100800
Basic table-top exercises with other govt agencies		20,000			20,000		
<b>Total - additional exercise capability</b>	<b>104,800</b>	<b>160,800</b>	<b>104,800</b>	<b>104,800</b>	<b>160,800</b>	<b>104,800</b>	<b>740,800</b>
<b>Organisation</b>							
Health & safety	9,200	–	4,000	10,000	10,000		10000
Stakeholder and supplier management, comprising:	26,500	40,500	26,500	26,500	40,500		26500
Build engagement with iwi utilising regional council planning	–	14,000			14,000		
Australian engagement	12,500	12,500	12,500	12,500	12,500		12500
Other international engagement	14,000	14,000	14,000	14,000	14,000		14000
Information management	50,000	50,000	50,000	50,000	50,000		50000
Intelligence-led	76,590	76,590	76,590	76,590	76,590		76590
Knowledge building & sustainment; benchmarking	61,590	61,590	61,590	61,590	61,590		61590
Attendance at Clean Gulf - spill response in very cold regions	15,000	15,000	15,000	15,000	15,000		15000
<b>Total - additional organisation capability</b>	<b>162,290</b>	<b>167,090</b>	<b>157,090</b>	<b>163,090</b>	<b>177,090</b>	<b>163,090</b>	<b>989,740</b>
<b>People</b>							
Staff - salary	160,000	164,800	169,744	174,836	180,081		185483.852
Staff - overhead (20%)	32,000	32,960	33,949	34,967	36,016		37096.7704
Environmental Advisor activities	0	0	0	0	0		0
<b>Total - additional people capability</b>	<b>192,000</b>	<b>197,760</b>	<b>203,693</b>	<b>209,804</b>	<b>216,098</b>	<b>222,581</b>	<b>1,241,935</b>
<b>TOTAL OPERATIONAL EXPENDITURE - NEW</b>	<b>1,307,100</b>	<b>1,477,460</b>	<b>1,442,743</b>	<b>1,454,854</b>	<b>1,531,148</b>	<b>1,467,631</b>	<b>8,680,935</b>

<b>CAPITAL EXPENDITURE – NEW</b>							
<b>Item</b>	<b>2016/17</b>	<b>2017/18</b>	<b>2018/19</b>	<b>2019/20</b>	<b>2020/21</b>	<b>2021/22</b>	<b>TOTAL 2016/7 - 2021/22</b>
<b>Equipment</b>							
Asset replacement, comprising:	3,346,550	2,646,500	1,612,500	1,929,250	53,000	1,528,000	11,115,800
<i>Asset replacement - equipment</i>	3,346,550	1,996,500	612,500	1,929,250	53,000	1,528,000	
<i>Aset replacement - dispersant</i>	–	650,000	1000000	0	0	0	
Capability enhancement	1,575,000	1,220,000	700000	0			3,495,000
5. <i>Spill-tracking transponders</i>	–	–					
9. <i>Dispersant stockpile</i>	–						
12. <i>Dispersant effectiveness monitoring</i>	–						
13. <i>Inshore/shoreline</i>	1,400,000	–	–				
14. <i>Nearshore</i>	–	–	650000				
15. <i>Coastal (includes 7)</i>	–	1,170,000	–				
17. <i>Oil recovery workboats</i>	125,000	–	–				
20. <i>Logistical support</i>	50,000	50,000	50000				
Oiled wildlife contract - equipment upgrade	17,500	–	–				17,500
<b>Total equipment</b>	<b>4,939,050</b>	<b>3,866,500</b>	<b>2,312,500</b>	<b>1,929,250</b>	<b>53,000</b>	<b>1,528,000</b>	<b>14,628,300</b>
<b>Training</b>							
Training equipment	40,000	5,000	5,000	5,000	5,000	5000	
<b>Total training</b>	<b>40,000</b>	<b>5,000</b>	<b>5,000</b>	<b>5,000</b>	<b>5,000</b>	<b>5,000</b>	<b>65,000</b>
<b>People</b>							
Infrastructure	50,000	0	0	0	0	0	
<b>Total people</b>	<b>50,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>50,000</b>
<b>TOTAL ADDITIONAL CAPITAL EXPENDITURE</b>	<b>5,029,050</b>	<b>3,871,500</b>	<b>2,317,500</b>				<b>14,743,300</b>
<b>TOTAL ADDITIONAL EXPENDITURE (OPEX AND CAPEX)</b>							<b>23,424,235</b>

# Appendix 7: Rates and sector shares - Option C

		2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
<b>Total Revenue to be achieved</b>		\$5,170,000	\$5,170,000	\$5,170,000	\$5,170,000	\$5,170,000	\$5,170,000
Base Levy		\$5,170,000	\$5,170,000	\$5,170,000	\$5,170,000	\$5,170,000	\$5,170,000
Capability Levy		\$2,900,000	\$2,900,000	\$2,900,000	\$2,900,000	\$2,900,000	\$2,900,000
Reserve Levy		\$0	\$0	\$0	\$0	\$0	\$0
<b>Total OPL Levy</b>		<b>\$8,070,000</b>	<b>\$8,070,000</b>	<b>\$8,070,000</b>	<b>\$8,070,000</b>	<b>\$8,070,000</b>	<b>\$8,070,000</b>
<b>Output - Rates (in cents, GST Excl.)</b>							
<b>Current Rates</b>	<b>Foreign Vessels</b>	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
	<b>Passenger/Carac/Oil Tankers</b>						
0.8100	Base Levy	0.2868	0.2768	0.2877	0.2826	0.2875	0.2526
0.0700	Capability Levy	0.1609	0.1553	0.1502	0.1473	0.1445	0.1417
0.1200	Capital Expenditure Levy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	Reserve Levy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1.0000	Total	0.4477	0.4321	0.4179	0.4099	0.4020	0.3943
	<b>OIL Tankers - Persistent Oil</b>						
29.9900	Base Levy	34.6496	33.8013	32.9620	32.3358	31.7151	31.1003
2.6700	Capability Levy	19.4359	18.9601	18.4893	18.1381	17.7899	17.4451
4.1700	Capital Expenditure Levy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	Reserve Levy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
36.8300	Total	54.0856	52.7614	48.5454	0.0000	0.0000	0.0000
	<b>OIL Tankers - Non Persistent Oil</b>						
6.7200	Base Levy	14.8710	14.3985	13.9378	13.5985	13.2859	12.9398
0.6000	Capability Levy	8.3416	8.0765	7.8181	7.6278	7.4412	7.2583
0.9300	Capital Expenditure Levy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	Reserve Levy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
8.2500	Total	23.2126	22.4750	21.7560	21.2263	20.7071	20.1981
	<b>Domestic Vessels</b>						
	<b>Passenger/Carac/Leir</b>						
301.8100	Base Levy	305.4565	294.0016	282.4139	270.7363	259.0131	247.2900
26.8300	Capability Levy	171.3392	164.9139	158.4140	151.8637	145.2878	138.7120
41.9900	Capital Expenditure Levy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	Reserve Levy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
370.6300	Total	476.7958	458.9154	440.8279	422.5999	404.3010	386.0020
	<b>OIL Tankers - Persistent Oil</b>						
73.9100	Base Levy	42.3275	40.3119	38.3923	37.2741	36.1884	35.1344
6.5700	Capability Levy	23.7427	22.6121	21.5353	20.9081	20.2991	19.7079
10.2900	Capital Expenditure Levy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	Reserve Levy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
90.7700	Total	66.0702	62.9240	59.9276	58.1821	56.4875	54.8422
	<b>OIL Tankers - Non Persistent Oil</b>						
10.2900	Base Levy	41.3133	40.5033	39.7091	38.9305	38.1671	37.4188
0.9200	Capability Levy	23.1738	22.7194	22.2740	21.8372	21.4090	20.9892
1.4300	Capital Expenditure Levy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	Reserve Levy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
12.6400	Total	64.4871	63.2227	61.9830	60.7677	59.5762	58.4080
	<b>NZ Fishing Vessel</b>						
133.4900	Base Levy	64.4154	64.4154	64.4154	64.4154	64.4154	64.4154
11.9000	Capability Levy	36.1324	36.1324	36.1324	36.1324	36.1324	36.1324
18.6200	Capital Expenditure Levy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	Reserve Levy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
164.0100	Total	100.5478	100.5478	100.5478	100.5478	100.5478	100.5478
	<b>Platforms</b>						
888.889.0000	Base Levy	3420.2000	3420.2000	3420.2000	3420.2000	3420.2000	3420.2000
10.700.0000	Capability Levy	1918.6000	1918.6000	1918.6000	1918.6000	1918.6000	1918.6000
17.400.0000	Capital Expenditure Levy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	Reserve Levy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
916.989.0000	Total	53.3880	53.3880	53.3880	53.3880	53.3880	53.3880

Current Rates	Output - Rates (in cents, GST Excl)						New Rates (Average) Revenue Generated on forecasted Gross Tonnes					
	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
<b>EPSCS</b>												
8,518,600,000	238,908,500	238,908,500	238,908,500	238,908,500	238,908,500	238,908,500	\$4,778	\$4,778	\$4,778	\$4,778	\$4,778	\$4,778
754,800,000	134,010,500	134,010,500	134,010,500	134,010,500	134,010,500	134,010,500	\$2,680	\$2,680	\$2,680	\$2,680	\$2,680	\$2,680
1,226,600,000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	\$0	\$0	\$0	\$0	\$0	\$0
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	\$0	\$0	\$0	\$0	\$0	\$0
10,500,000,000	372,919,000	372,919,000	372,919,000	372,919,000	372,919,000	372,919,000	\$7,458	\$7,458	\$7,458	\$7,458	\$7,458	\$7,458
							-\$202,542	-\$202,542	-\$202,542	-\$202,542	-\$202,542	-\$202,542
<b>Pipelines</b>												
888,889,000	2,744,000	2,744,000	2,744,000	2,744,000	2,744,000	2,744,000	\$110	\$110	\$110	\$110	\$110	\$110
8,600,000	1,539,000	1,539,000	1,539,000	1,539,000	1,539,000	1,539,000	\$62	\$62	\$62	\$62	\$62	\$62
14,000,000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	\$0	\$0	\$0	\$0	\$0	\$0
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	\$0	\$0	\$0	\$0	\$0	\$0
911,489,000	4,283,000	4,283,000	4,283,000	4,283,000	4,283,000	4,283,000	\$171	\$171	\$171	\$171	\$171	\$171
							-\$36,288	-\$36,288	-\$36,288	-\$36,288	-\$36,288	-\$36,288
<b>Exploration Wells</b>												
888,889,000	383,000	383,000	383,000	383,000	383,000	383,000	\$8	\$8	\$8	\$8	\$8	\$8
2,400,000	215,000	215,000	215,000	215,000	215,000	215,000	\$4	\$4	\$4	\$4	\$4	\$4
3,900,000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	\$0	\$0	\$0	\$0	\$0	\$0
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	\$0	\$0	\$0	\$0	\$0	\$0
895,189,000	598,000	598,000	598,000	598,000	598,000	598,000	\$12	\$12	\$12	\$12	\$12	\$12
							-\$17,892	-\$17,892	-\$17,892	-\$17,892	-\$17,892	-\$17,892
							\$7,562,036	\$7,781,496	\$8,009,204	\$8,193,764	\$8,385,780	\$8,585,695

Total for 6 years based on average rates  
Per Budget \$48,517,974  
Variance due to using average rates \$48,420,000  
\$97,974



## Comparison of sector risk profiles and contribution, current and proposed Levy - Option C

Sector	2012 Sector Share (%) [1]	Total Levy per annum, 13/14-15/16 using 2012 Sector Share \$ [2]	Sector Share (%) based on MOSRA 2015 [3]	Option C Proposed Base Levy \$	Option C Proposed Capability Levy \$	Option C Proposed Total Levy \$	\$ Levy Change
Domestic Passenger, Cargo, and Tanker Bunker Fuel	13.125	721,322.66	10.380	536,646.00	298,840.20	835,486	114,164
Domestic Tankers - Oil as Cargo (total)	10.375	570,188.39	18.620	962,654.00	536,069.80	1,498,724	928,535
Persistent	6.375	350,356.72	4.900	253,330.00	141,071.00	394,401	44,044
Non Persistent	4.000	219,831.67	13.720	709,324.00	394,998.80	1,104,323	884,491
NZ Fishing	2.500	137,394.79	0.900	46,530.00	25,911.00	72,441	-64,954
Foreign Passenger and Cargo, Foreign Tanker Bunker Fuel	28.640	1,573,994.73	11.220	580,074.00	323,023.80	903,098	-670,897
Foreign Tankers - Oil as Cargo (total)	41.360	2,273,059.43	58.782	3,039,029.40	1,692,333.78	4,731,363	2,458,304
Persistent oil	34.320	1,886,155.70	44.359	2,293,360.30	1,277,095.61	3,570,456	1,684,300
Non-persistent oil	7.040	386,903.73	14.423	745,669.10	415,238.17	1,160,907	774,004
Off-shore Oil and Gas - total	4.000	250,373.00	0.098	5,066.60	2,821.42	7,888	-242,485
Platforms	0.134	44,445.00	0.003	155.10	86.37	241	-44,204
FPSOs	3.744	170,372.00	0.092	4,802.93	2,674.59	7,478	-162,894
Pipelines	0.086	35,556.00	0.002	103.40	57.58	161	-35,395
Exploration Well	0.006	0.00	0.000	5.17	2.88	8	8
<b>Total</b>		<b>5,526,333.00</b>	<b>100.000</b>	<b>5,170,000.00</b>	<b>2,879,000.00</b>	<b>8,049,000</b>	<b>2,522,667</b>

[1] Based on 2012 MOSRA Sector Risk Share report as modified in order to reflect approach to bunker share of risk for domestic and foreign tankers. Fixed rates for off-shore oil and gas.

[2] GST excl. Based on modelled base levy requirement.

[3] Modified in regards to bunker share of risk for domestic and foreign tankers as per 2012 Consultation and Levy Order 2013.

## Appendix 8: Operational and capital expenditure - Option D

OPERATIONAL EXPENDITURE – NEW							
Component and item	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	TOTAL 2016/7 - 2021/22
<b>Equipment</b>							
Capability enhancement	431,500	470,300	481,250	571,250	571,250	571,250	
1&2. Modelling – subsea well-control incidents & chemicals/produced gas	50,000	50,000	50,000	50,000	50,000	50,000	50000
3&11. Aerial monitoring & dispersant application	194,000	194,000	194,000	194,000	194,000	194,000	194000
12. Dispersant effectiveness monitoring	–	15,000	15,000	15,000	15,000	15,000	15000
18. Contracts with vessel suppliers	80,000	90,000	90,000	180,000	180,000	180,000	180000
20. Logistical support	50,000	50,000	50,000	50,000	50,000	50,000	50000
Vessel maintenance, training, & compliance	22,500	22,500	22,500	22,500	22,500	22,500	22500
Additional maintenance	35,000	48,800	59,750	59,750	59,750	59,750	59750
<b>Total - additional equipment capability</b>	<b>431,500</b>	<b>470,300</b>	<b>481,250</b>	<b>571,250</b>	<b>571,250</b>	<b>571,250</b>	<b>3,096,800</b>
<b>Training</b>							
National Training Programme, comprising:	460,000	460,000	460,000	460,000	460,000	460,000	
Planning training	108,000	108,000	108,000	108,000	108,000	108,000	108000
Operations equipment training	166,000	166,000	166,000	166,000	166,000	166,000	166000
Operations management & coordination training	78,000	78,000	78,000	78,000	78,000	78,000	78000
Logistics training	108,000	108,000	108,000	108,000	108,000	108,000	108000
National On-Scene Commander	–	–	14,400	14,400	14,400	14,400	14400
Oiled Wildlife Contract, comprising:	256,800	256,800	256,800	256,800	256,800	256,800	
Training	120,000	120,000	120,000	120,000	120,000	120,000	120000
Overhead (114%)	136,800	136,800	136,800	136,800	136,800	136,800	136800
<b>Total - additional training capability</b>	<b>716,800</b>	<b>716,800</b>	<b>731,200</b>	<b>731,200</b>	<b>731,200</b>	<b>731,200</b>	<b>4,358,400</b>
<b>Exercise</b>							
Industry Exercise Programme, comprising:	4,000	40,000	4,000	4,000	40,000	4,000	
Offshore industry & fixed oil transfer sites exercises	4,000	4,000	4,000	4,000	4,000	4,000	4000
Offshore industry and fixed oil transfer sites workshop (2yrly)	–	36,000	–	–	36,000	–	
National exercise programme	146,800	146,800	146,800	146,800	146,800	146,800	146800
Basic table-top exercises with other govt agencies	–	20,000	–	–	20,000	–	
<b>Total - additional exercise capability</b>	<b>150,800</b>	<b>206,800</b>	<b>150,800</b>	<b>150,800</b>	<b>206,800</b>	<b>150,800</b>	<b>1,016,800</b>
<b>Organisation</b>							
Health & safety	9,200	–	4,000	10,000	10,000	10,000	
Stakeholder and supplier management, comprising:	26,500	40,500	26,500	26,500	40,500	26,500	
Build engagement with iwi utilising regional council planning	–	14,000	–	–	14,000	–	
Australian engagement	12,500	12,500	12,500	12,500	12,500	12,500	12,500
Other international engagement	14,000	14,000	14,000	14,000	14,000	14,000	14,000
Information management	50,000	50,000	50,000	50,000	50,000	50,000	50,000
Intelligence-led	76,590	76,590	76,590	76,590	76,590	76,590	76,590
Knowledge building & sustainment; benchmarking	61,590	61,590	61,590	61,590	61,590	61,590	61,590
Attendance at Clean Gulf - spill response in very cold regions	15,000	15,000	15,000	15,000	15,000	15,000	15,000
<b>Total - additional organisation capability</b>	<b>162,290</b>	<b>167,090</b>	<b>157,090</b>	<b>163,090</b>	<b>177,090</b>	<b>163,090</b>	<b>989,740</b>
<b>People</b>							
Staff - salary	160,000	164,800	169,744	294,836	303,681	312,792	
Staff - overhead (20%)	32,000	32,960	33,949	58,967	60,736	62,558	
Environmental Advisor activities	0	0	0	119,250	119,250	119,250	
<b>Total - additional people capability</b>	<b>192,000</b>	<b>197,760</b>	<b>203,693</b>	<b>473,054</b>	<b>483,668</b>	<b>494,600</b>	<b>2,044,774</b>
<b>TOTAL OPERATIONAL EXPENDITURE - NEW</b>	<b>1,653,390</b>	<b>1,758,750</b>	<b>1,724,033</b>	<b>2,089,394</b>	<b>2,170,008</b>	<b>2,110,940</b>	<b>11,506,514</b>

<b>CAPITAL EXPENDITURE – NEW</b>							
<b>Item</b>	<b>2016/17</b>	<b>2017/18</b>	<b>2018/19</b>	<b>2019/20</b>	<b>2020/21</b>	<b>2021/22</b>	<b>TOTAL 2016/7 - 2021/22</b>
<b>Equipment</b>							
Asset replacement, comprising:	3,346,550	2,646,500	1,612,500	1,929,250	53,000	1,528,000	11,115,800
<i>Asset replacement - equipment</i>	3,346,550	1,996,500	612,500	1,929,250	53,000	1,528,000	
<i>Asset replacement - dispersant</i>	–	650,000	1,000,000	0	0	0	
Capability enhancement	875,000	1,950,000	875,000	700,000	1,250,000	325,000	5,975,000
5. <i>Spill-tracking transponders</i>	–	50,000	–	–	–	–	
9. <i>Dispersant stockpile</i>	–	500,000	500,000	–	–	–	
12. <i>Dispersant effectiveness monitoring</i>	–	100,000	–	–	–	–	
13. <i>Inshore/shoreline</i>	700,000	–	–	700,000	–	–	
14. <i>Nearshore</i>	–	–	325,000	–	–	325,000	
15. <i>Coastal (includes 7)</i>	–	1,250,000	–	–	1,250,000	–	
17. <i>Oil recovery workboats</i>	125,000	–	–	–	–	–	
20. <i>Logistical support</i>	50,000	50,000	50,000	–	–	–	
Oiled wildlife contract - equipment upgrade	17,500	–	–	–	–	–	
<b>Total equipment</b>	<b>4,239,050</b>	<b>4,596,500</b>	<b>2,487,500</b>	<b>2,629,250</b>	<b>1,303,000</b>	<b>1,853,000</b>	<b>17,108,300</b>
<b>Training</b>							
Training equipment	40,000	5,000	5,000	5,000	5,000	5,000	
<b>Total training</b>	<b>40,000</b>	<b>5,000</b>	<b>5,000</b>	<b>5,000</b>	<b>5,000</b>	<b>5,000</b>	<b>65,000</b>
<b>People</b>							
Infrastructure	50,000	0	0	0	0	0	
<b>Total people</b>	<b>50,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>50,000</b>
<b>TOTAL ADDITIONAL CAPITAL EXPENDITURE</b>	<b>4,329,050</b>	<b>4,601,500</b>	<b>2,492,500</b>	<b>2,634,250</b>	<b>1,308,000</b>	<b>1,858,000</b>	<b>17,223,300</b>
<b>TOTAL ADDITIONAL EXPENDITURE (OPEX AND CAPEX)</b>							<b>28,729,814</b>

# Appendix 9: Rates and sector shares - Option D

Total Revenue to be achieved		2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
Base Levy	\$5,170,000	\$5,170,000	\$5,170,000	\$5,170,000	\$5,170,000	\$5,170,000	\$5,170,000
Capability Levy	\$3,700,000	\$3,700,000	\$3,700,000	\$3,700,000	\$3,700,000	\$3,700,000	\$3,700,000
Reserve Levy	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Total OPL Levy</b>	<b>\$8,870,000</b>	<b>\$8,870,000</b>	<b>\$8,870,000</b>	<b>\$8,870,000</b>	<b>\$8,870,000</b>	<b>\$8,870,000</b>	<b>\$8,870,000</b>
<b>Output - Rates (in cents, GST Excl.)</b>							
<b>Current Rates</b>	<b>Foreign Vessels</b>	<b>2016/17</b>	<b>2017/18</b>	<b>2018/19</b>	<b>2019/20</b>	<b>2020/21</b>	<b>2021/22</b>
	<b>Passenger/Caraco/Oil Tankers</b>						
0.8100	Base Levy	0.2868	0.2768	0.2877	0.2826	0.2875	0.2526
0.0700	Capability Levy	0.2053	0.1981	0.1916	0.1879	0.1843	0.1808
0.1200	Capital Expenditure Levy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	Reserve Levy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>1.0000</b>	<b>Total</b>	<b>0.4921</b>	<b>0.4750</b>	<b>0.4593</b>	<b>0.4505</b>	<b>0.4419</b>	<b>0.4333</b>
	<b>OIL Tankers - Persistent OIL</b>						
29.9900	Base Levy	34.6496	33.8013	32.9620	32.3358	31.7151	31.1003
2.6700	Capability Levy	24.7976	24.1905	23.5888	23.1417	22.6975	22.2575
4.1700	Capital Expenditure Levy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	Reserve Levy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>36.8300</b>	<b>Total</b>	<b>59.4472</b>	<b>57.9918</b>	<b>53.3578</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>
	<b>OIL Tankers - Non Persistent OIL</b>						
6.7200	Base Levy	14.8710	14.3985	13.9378	13.5985	13.2859	12.9398
0.6000	Capability Levy	10.6427	10.3045	9.9749	9.7320	9.4939	9.2606
0.9300	Capital Expenditure Levy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	Reserve Levy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>8.2500</b>	<b>Total</b>	<b>25.5137</b>	<b>24.7030</b>	<b>23.9127</b>	<b>23.3305</b>	<b>22.7598</b>	<b>22.2004</b>
	<b>Domestic Vessels</b>						
	<b>Passenger/Caraco/Leir</b>						
301.8100	Base Levy	305.4565	294.0016	282.4139	270.7363	259.0131	247.2900
26.8300	Capability Levy	218.6052	210.4073	202.1144	193.7571	185.3672	176.9774
41.9900	Capital Expenditure Levy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	Reserve Levy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>370.6300</b>	<b>Total</b>	<b>524.0618</b>	<b>504.4089</b>	<b>484.5283</b>	<b>464.4933</b>	<b>444.3804</b>	<b>424.2674</b>
	<b>OIL Tankers - Persistent OIL</b>						
73.9100	Base Levy	42.3275	40.3119	38.3923	37.2741	36.1884	35.1344
6.5700	Capability Levy	30.2924	28.8499	27.4761	26.6758	25.8989	25.1445
10.2900	Capital Expenditure Levy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	Reserve Levy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>90.7700</b>	<b>Total</b>	<b>72.6199</b>	<b>69.1618</b>	<b>65.8684</b>	<b>63.9499</b>	<b>62.0873</b>	<b>60.2789</b>
	<b>OIL Tankers - Non Persistent OIL</b>						
10.2900	Base Levy	41.3133	40.5033	39.7091	38.9305	38.1671	37.4188
0.9200	Capability Levy	29.5666	28.9869	28.4185	27.8613	27.3150	26.7784
1.4300	Capital Expenditure Levy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	Reserve Levy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>12.6400</b>	<b>Total</b>	<b>70.8799</b>	<b>69.4901</b>	<b>68.1276</b>	<b>66.7917</b>	<b>65.4821</b>	<b>64.1981</b>
	<b>NZ Fishing Vessel</b>						
133.4900	Base Levy	64.4154	64.4154	64.4154	64.4154	64.4154	64.4154
11.9000	Capability Levy	46.1000	46.1000	46.1000	46.1000	46.1000	46.1000
18.6200	Capital Expenditure Levy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
0.0000	Reserve Levy	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>164.0100</b>	<b>Total</b>	<b>110.5154</b>	<b>110.5154</b>	<b>110.5154</b>	<b>110.5154</b>	<b>110.5154</b>	<b>110.5154</b>

Current Rates	Output - Rates (in cents, GST Excl)													
	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	Average New Rates		Revenue Generated on forecasted Gross Tonnes		2021/22			
							Incr (Decr)	%	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
<b>Platforms</b>														
888,889,000	3420,2000	3420,2000	3420,2000	3420,2000	3420,2000	3420,2000	-885,468,8000	-99.6%	\$171	\$171	\$171	\$171	\$171	\$171
10,700,000	2447,8000	2447,8000	2447,8000	2447,8000	2447,8000	2447,8000	-8,252,2000	-77.1%	\$122	\$122	\$122	\$122	\$122	\$122
17,400,000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	-17,400,0000	-100.0%	\$0	\$0	\$0	\$0	\$0	\$0
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	100.0%	\$0	\$0	\$0	\$0	\$0	\$0
916,989,000	58,6800	58,6800	58,6800	58,6800	58,6800	58,6800	-91,112,1000	-99.4%	\$293	\$293	\$293	\$293	\$293	\$293
<b>FPSCS</b>														
8,518,600,000	238,908,5000	238,908,5000	238,908,5000	238,908,5000	238,908,5000	238,908,5000	-8,279,891,5000	-97.2%	\$4,778	\$4,778	\$4,778	\$4,778	\$4,778	\$4,778
754,800,000	170,979,0000	170,979,0000	170,979,0000	170,979,0000	170,979,0000	170,979,0000	-583,821,0000	-77.3%	\$3,420	\$3,420	\$3,420	\$3,420	\$3,420	\$3,420
1,226,600,000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	-1,226,600,0000	-100.0%	\$0	\$0	\$0	\$0	\$0	\$0
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	100.0%	\$0	\$0	\$0	\$0	\$0	\$0
10,500,000,000	409,887,5000	409,887,5000	409,887,5000	409,887,5000	409,887,5000	409,887,5000	-10,090,112,5000	-96.1%	\$8,198	\$8,198	\$8,198	\$8,198	\$8,198	\$8,198
<b>Pipelines</b>														
888,889,000	2,744,0000	2,744,0000	2,744,0000	2,744,0000	2,744,0000	2,744,0000	-888,145,0000	-99.7%	\$110	\$110	\$110	\$110	\$110	\$110
8,600,000	1,963,7500	1,963,7500	1,963,7500	1,963,7500	1,963,7500	1,963,7500	-6,636,2500	-77.2%	\$79	\$79	\$79	\$79	\$79	\$79
14,000,000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	-14,000,0000	-100.0%	\$0	\$0	\$0	\$0	\$0	\$0
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	100.0%	\$0	\$0	\$0	\$0	\$0	\$0
911,489,000	4,707,7500	4,707,7500	4,707,7500	4,707,7500	4,707,7500	4,707,7500	-906,781,2500	-99.5%	\$188	\$188	\$188	\$188	\$188	\$188
<b>Exploration Wells</b>														
888,889,000	383,0000	383,0000	383,0000	383,0000	383,0000	383,0000	-888,506,0000	-100.0%	\$8	\$8	\$8	\$8	\$8	\$8
2,400,000	274,0000	274,0000	274,0000	274,0000	274,0000	274,0000	-2,126,0000	-88.6%	\$5	\$5	\$5	\$5	\$5	\$5
3,900,000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	-3,900,0000	-100.0%	\$0	\$0	\$0	\$0	\$0	\$0
0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	100.0%	\$0	\$0	\$0	\$0	\$0	\$0
895,189,000	657,0000	657,0000	657,0000	657,0000	657,0000	657,0000	-894,532,0000	-99.9%	\$13	\$13	\$13	\$13	\$13	\$13
									\$8,311,680	\$8,552,896	\$8,803,177	\$9,006,033	\$9,217,084	\$9,436,817
									Total for 6 years based on average rates					
									Per Budget					
									Variance due to using average rates					
									\$53,327,687					
									\$53,220,000					
									\$107,687					

## Comparison of sector risk profiles and contribution, current and proposed Levy - Option D

Sector	2012 Sector Share (%) [1]	Total Levy per annum, 13/14-15/16 using 2012 Sector Share \$ [2]	Sector Share (%) based on MOSRA 2015 [3]	Option D Proposed Base Levy \$	Option D Proposed Capability Levy \$	Option D Proposed Total Levy \$	\$ Levy Change
Domestic Passenger, Cargo, and Tanker Bunker Fuel	13.125	721,322.66	10.380	536,646.00	382,191.60	918,838	197,515
Domestic Tankers - Oil as Cargo (total)	10.375	570,188.39	18.620	962,654.00	685,588.40	1,648,242	1,078,054
Persistent	6.375	350,356.72	4.900	253,330.00	180,418.00	433,748	83,391
Non Persistent	4.000	219,831.67	13.720	709,324.00	505,170.40	1,214,494	994,663
NZ Fishing	2.500	137,394.79	0.900	46,530.00	33,138.00	79,668	-57,727
Foreign Passenger and Cargo, Foreign Tanker Bunker Fuel	28.640	1,573,994.73	11.220	580,074.00	413,120.40	993,194	-580,800
Foreign Tankers - Oil as Cargo (total)	41.360	2,273,059.43	58.782	3,039,029.40	2,164,353.24	5,203,383	2,930,323
Persistent oil	34.320	1,886,155.70	44.359	2,293,360.30	1,633,298.38	3,926,659	2,040,503
Non-persistent oil	7.040	386,903.73	14.423	745,669.10	531,054.86	1,276,724	889,820
<b>Off-shore Oil and Gas - total</b>	<b>4.000</b>	<b>250,373.00</b>	<b>0.098</b>	<b>5,066.60</b>	<b>3,608.36</b>	<b>8,675</b>	<b>-241,698</b>
Platforms	0.134	44,445.00	0.003	155.10	110.46	266	-44,179
FPSOs	3.744	170,372.00	0.092	4,802.93	3,420.58	8,224	-162,148
Pipelines	0.086	35,556.00	0.002	103.40	73.64	177	-35,379
Exploration Well	0.006	0.00	0.000	5.17	3.68	9	9
<b>Total</b>		<b>5,526,333.00</b>	<b>100.000</b>	<b>5,170,000.00</b>	<b>3,682,000.00</b>	<b>8,852,000</b>	<b>3,325,667</b>

[1] Based on 2012 MOSRA Sector Risk Share report as modified in order to reflect approach to bunker share of risk for domestic and foreign tankers. Fixed rates for off-shore oil and gas.

[2] GST excl. Based on modelled base levy requirement.

[3] Modified in regards to bunker share of risk for domestic and foreign tankers as per 2012 Consultation and Levy Order 2013.

## Appendix 10: Comparison of options - capability

PROPOSED LEVY OPTIONS (\$ M p/a)		A	B	C	D				
<b>BASELINE LEVY</b>		<b>5.170</b>	<b>5.170</b>	<b>5.170</b>	<b>5.170</b>				
<b>CAPABILITY LEVY</b>		<b>1.356</b>	<b>2.371</b>	<b>2.879</b>	<b>3.682</b>				
<b>TOTAL ANNUAL LEVY</b>		<b><u>6.526</u></b>	<b><u>7.541</u></b>	<b><u>8.049</u></b>	<b><u>8.852</u></b>				
<b>OVERALL CAPABILITY EFFECT</b>		Maintains capability at 2015/16 levels	Limited, incremental capability increase over 2015/16 levels	Moderate, incremental capability increase over 2015/16 levels	Significant, incremental capability increase over 2015/16 levels				
<b>EQUIPMENT</b> (Current holdings approx. \$15M)		95% of assets at end-of-life/obsolete replaced, no additional equipment \$20M holdings by end date	95% of assets at end-of-life/obsolete replaced, some new equipment \$22.5M holdings by end date	100% of assets at end-of-life/obsolete replaced/significant new equipment \$23.5M holdings by end date	100% of assets at end-of-life/obsolete replaced, major new equipment + systems \$26M holdings by end date				
Recovery Systems (Booms, Skimmers, Storage Tanks)	Coastal	<b>No capability</b>	+ - one full coastal system \$1.2M	As per Option B	+ second full system \$1.25M				
	Near-shore	Address obsolescence	+ - additional equipment \$325,000	+ further systems \$325,000	As per Option C				
	In-shore	Address obsolescence	+ - additional systems \$700,000	+ further additional systems \$700,000	As per option C				
Dispersant		Address obsolescence	As per Option A	Replace obsolescent stock earlier	+ Additional dispersant stocks \$1M				
Dispersant Application Systems		Address obsolescence	As per option A	Address obsolescence earlier	+ Effectiveness monitoring \$150,000				
Workboats		Vessel ancillaries replaced	+ new, larger workboat \$125,000	As per option B	As per option B				
Vehicles		Vehicle ancillaries replaced	As per option A	As per Option A	As per option A				
Pumping Systems		Address obsolescence	As per Option A	Address obsolescence earlier	As per option C				
Communication Systems		Address obsolescence	As per Option A	Address obsolescence earlier	As per option C				
Support Equipment		Address obsolescence	As per Option A	Slight increase - earlier re-equipment	As per option C				
<b>TRAINING AND EXERCISES</b>		Current level of readiness, skills and knowledge and current trained personnel numbers	Improved readiness, skills and knowledge, more resilience, stronger wildlife support	Further increase to wildlife readiness and responses capability	Slight increase to Wildlife capability, significant increase to NRT capability				
Local/Regional/Industry		Current level.	+ \$10,000 p/a for exercises-	As per Option B	As per Option B				
National Response Team		Current level.	+\$100,000 p/a for exercise.	As per Option B	+ \$200,000 p/a training/exercises				
Oiled Wildlife Capability		Current level.	+ - \$150,000 p/a/ for revised contract	+ additional \$60,000 p/a	+ additional \$30,000 p/a				
<b>PEOPLE AND ORGANISATION</b>		Current staffing levels at MPRS maintained, current organisational systems and processes maintained	Increase in core FTE supports re-equipment programme, able to up-skill and develop relationships	Further increase in core FTE supports operations and planning, up-skilling and relationships	Further increase in core FTE for environmental skills, earlier build-up of capabilities				
Additional FTE		Current level – 8.2	+ - 1 FTE – equipment and logistics	+ - 1 more FTE – operations/planning	+ 1 more FTE – environmental skills				
Health & Safety/Information/Intelligence		Current level	+ - \$145,00 p/a relationships/skills	As per option B	Earlier and extra funding for skills				
<b>SPECIALIST CONTRACTS</b>		Current contracts maintained, engagement and relationships at current level	Slight reduction in aerial contract costs subsidises initial vessel contracts – important new capability	Current contracts maintained plus initial vessel contracts for a new capability	Current contracts maintained and significant vessel contracts put in place earlier				
Aerial Observation/ Aerial Dispersant		Reduced training budget (-33%)	Reduced training budget (-33%)	+ Back to current funding level	As per option C				
Oil/Gas plume modelling		Current contracts maintained	As per option A	As per option A	As per option A				
Vessels of Opportunity		<b>No capability</b>	+ - Basic capability; – few vessels	As per option B	+ earlier and more vessels \$350,000				
<b>\$M/% Increase from 2013 target levy of \$5.6M</b>		<b>0.926</b>	<b>17%</b>	<b>1.941</b>	<b>35%</b>	<b>2.449</b>	<b>44%</b>	<b>3.252</b>	<b>58%</b>
<b>\$M/% increase from 2015 forecast levy revenue of \$6.85M</b>		<b>(0.324)</b>	<b>(5%)</b>	<b>0.691</b>	<b>10%</b>	<b>1.199</b>	<b>18%</b>	<b>2.002</b>	<b>29%</b>