Full Paper

Government (Maritime New Zealand's) Role in Oiled Wildlife Response

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Abstract: The risk of marine oil spills in New Zealand waters is managed by a comprehensive approach to prevention and response by the crown entity Maritime New Zealand (MNZ). Key to this strategy is partnerships between MNZ and various agencies and unitary authorities. Maritime New Zealand has a contractual agreement spanning over ten years with the New Zealand Wildlife Health Centre, Massey University, to provide preparedness and response in the event of a marine oil spill affecting wildlife. Oil spill preparedness, including oiled wildlife response, is funded through the Oil Pollution Fund, an industry levy paid by those sectors whose activities pose a risk of marine oil pollution. In a spill event, wildlife response costs authorised by the On-Scene Commander are fully recoverable from the spiller, under both the Maritime Transport Act 1994 and the Civil Liability Convention 1969. Oil Spill Response in New Zealand is based on the same Co-ordinated Incident Management System (CIMS) structure as emergency management organisations worldwide. Wildlife responders are integral members of the operational and planning teams in this management structure. In addition, wildlife responders are included in the National Response Team (NRT), a key feature of New Zealand's Oil Spill Response Strategy. This team consists of MNZ staff, contracted specialists and selected trained personnel from around the country that are available at short notice for any Tier 3 incident in New Zealand marine waters. This paper will describe the system in New Zealand for responding to marine oil spill events and outline the partnership for oiled wildlife preparedness and response capability between Maritime New Zealand and the New Zealand Wildlife Health Centre.

New Zealand's Maritime Scene

It is necessary to describe the New Zealand oil spill response system in some detail before discussing the wildlife response because as the response to oiled wildlife is incorporated within the overall response at a very fundamental level.
So what makes this system so different from other nations? The International Convention on Oil Pollution Preparedness, Response and Co-operation, 1990 (OPRC 90 Convention), under Article 6, requires prepositioned oil spill combating equipment; a program of exercising and training personnel, detailed plans and a command and control mechanism to control the spill response. The 'kiwi' approach is to bed in the wildlife response organisation to both field and incident command by completely integrating the wildlife component of spill response when wildlife become oiled and sick.

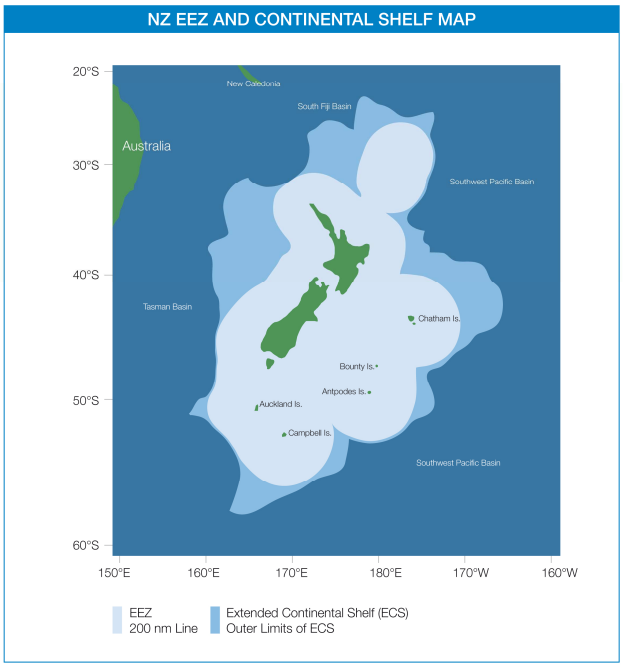


Figure 1: New Zealand Exclusive Economic Zone (EEZ)

New Zealand is in the South Pacific Ocean and is made up of three larger islands (the North, South and Stewart Islands). There are also hundreds of offshore islands extending nearly 1000 kilometres to the north and 800 kilometres to the south. This means that New Zealand's Exclusive Economic Zone (EEZ) area is extensive in that it is 20 times the land area of New Zealand at 5.7 million square kilometres. (Rob Service et al, 2009) (Figure 1).

New Zealand's maritime environment is diverse, dynamic and changing. It provides valuable employment, trade tourism and recreational opportunities for people on our seas, rivers and lakes.

Our diverse maritime community includes more than 450,000 pleasure craft, nearly 4,000 commercial vessels, and a small number of New Zealand flagged vessels (including interisland ferries), as well as a range of smaller ferries carrying millions of passengers each year.

Background

On the 17th November 1994 the Governor General of New Zealand signed the Maritime Transport Act 1994 into law. This legislation established the Maritime Safety Authority of New Zealand (MSA), and amended and consolidated maritime law in New Zealand into a single piece of legislation.

The Maritime Transport Act 1994 provided for the implementation of New Zealand's obligations under international maritime agreements and ensured that participants in the maritime transport system of New Zealand are responsible for their actions.
It also empowered MSA to protect the marine environment and to either continue existing, or enabled the implementation of new obligations on New Zealand under various international conventions relating to pollution of the marine environment and laid out in general terms oil spill response in New Zealand.

As a result of the transport sector review and the maritime transport amendment act 2004, MSA became Maritime New Zealand (MNZ) on 1st July 2005. Maritime New Zealand's new vision became 'safe, secure & clean seas; and our mission changed also to become: 'to lead & support the maritime community to take responsibility for ensuring safe, secure & clean seas.

As part of their mission to ensure the seas around New Zealand remain clean, MNZ established the Marine Pollution Response Service (MPRS) based in Auckland. MPRS is

staffed by a small team of trained oil spill response experts who oversee New Zealand's stockpiles of specialist oil spill response equipment. MPRS staff also provides oil spill exercises and training courses to regionally-based oil spill responders from all around New Zealand.

MPRS's role is to minimise the effects of pollution from ships, offshore oil and gas platforms and fuel transfer installations, and act as the lead agency in managing all major oil spill events. To achieve this, a three-tiered response system has been adopted and refined over time, and has proven effective in responding to marine pollution incidents. A feature of this system is that MNZ through MPRS actually take the command and control of any declared Tier 3 incident in New Zealand.

The first Tier 3 incident in New Zealand was the grounding and subsequent sinking of the Don Wong 529 on Breaksea Island off Stewart Island in 1998.

The System in New Zealand
New Zealand's response capability is based upon contingency planning that has been developed and maintained through partnerships between MNZ, regional councils and unitary authorities, industry, domestic and international agencies. This strategy aims to minimise the impact of oil pollution on the marine environment within New Zealand's area of responsibility.

Our response system is made up of three 'tiers', with each 'tier' having the ability to escalate in an integrated and effective manner to the next. Each tier is required to prepare contingency plans and a response capability appropriate to their respective level of responsibility.

- Tier 1; Industry: These are site-specific and include most shore-side industry with oil transfer facilities, offshore installations and all vessels from which an oil spill is possible. All Tier 1 sites are expected to plan for and be able to provide positive first response to any pollution incidents for which they are responsible.

- Tier 2; Regional Councils: Regional councils or unitary authorities are required to plan for and respond to marine oil spills within their part of the territorial sea (out to 12 nautical miles) where that spill exceeds the clean-up capability of the Tier 1 plan (or for any oil spill for which no responsible party can be identified. There are 16 regional councils in New Zealand.

- Tier 3; Maritime New Zealand: MNZ controls the National Oil Spill Contingency Plan for oil spills within a region which escalate beyond the resources of the region, or oil spills which occur with the New Zealand EEZ, but outside regional council boundaries.

There are other key principals used that make the New Zealand system unique and effective other than partnerships. These include but are not limited to:

- The protection of human safety in preparation and responding to oil spill events. This includes the public, industry personnel and the spill responders.

- A Net Environmental Benefit Assessment (NEBA) underpins the decision making process concerning response options and clean-up standards.

- The 'polluter pays' principle is fundamental to the New Zealand system. The full and reasonable cost of any spill response, clean-up and reasonable restoration efforts are sought from the spiller.

- On-Scene Commanders ensure that the initial mobilisation is sufficient to mount an effective and credible response, and

- The best available specialist advice should be sought before decisions are made.

Risk Assessments

MNZ maintains its domestic response capability based on the findings of successive and regular marine oil spill risk assessments. If the scale of an incident is beyond New Zealand's domestic capability, arrangements are in place to obtain assistance from overseas (this includes oiled wildlife operations as well). These relationships are reciprocal as New Zealand will be expected to (and does) assist our overseas neighbours if requested.

These risk assessments are undertaken every four years out of necessity because New Zealand has almost total reliance on the maritime transport system for imports and exports. The vast majority of our oil is imported. We have offshore oil and gas industry installations and out nearest international assistance is 2,000 kilometres away in Australia. Finally there is a significant economic and spiritual value of our generic marine resources.

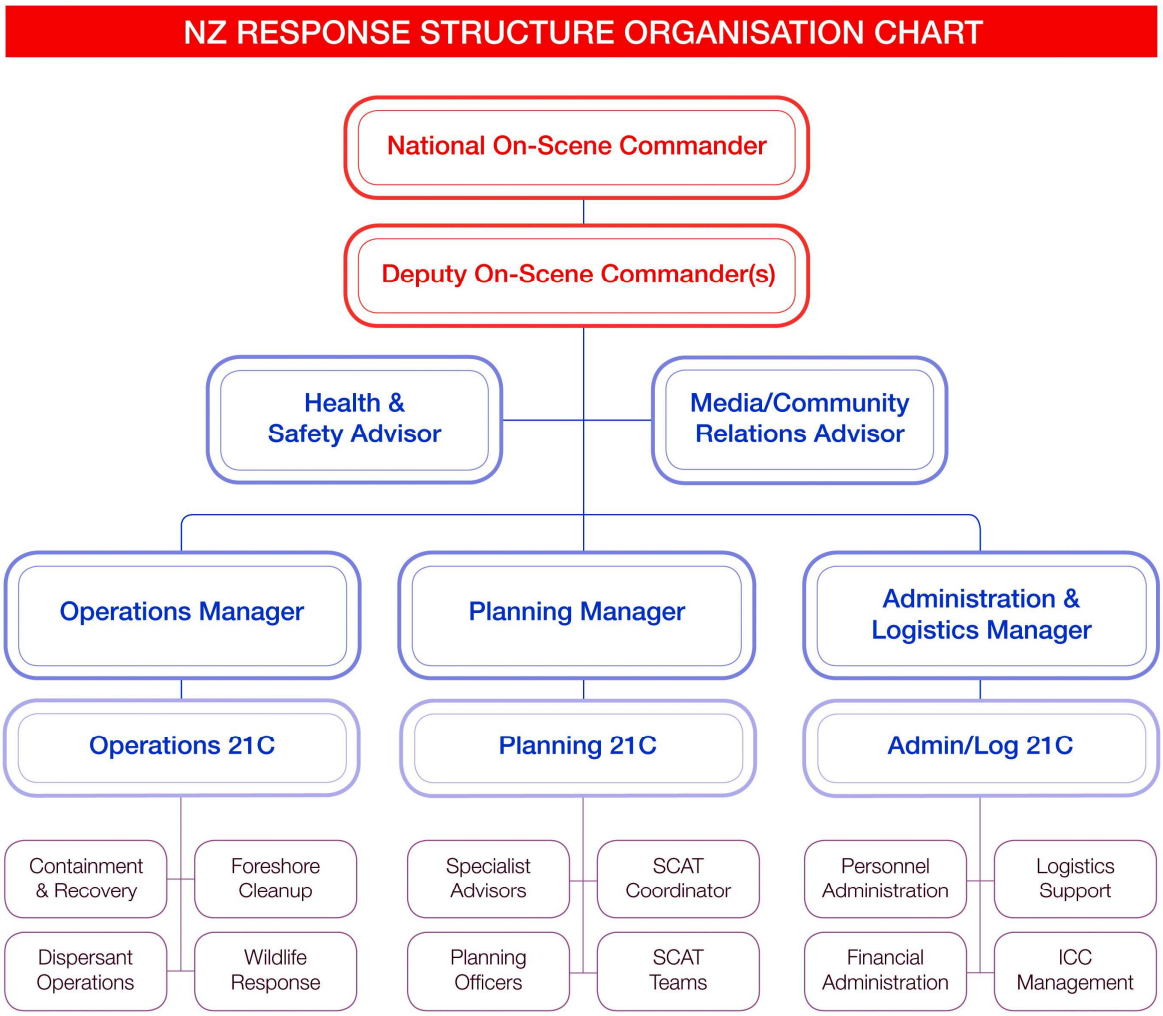
Oil spill preparedness activities undertaken by central and local government are funded by a levy on the oil and shipping industries (the risk creators). The levy is collected by Maritime New Zealand and is administered as the Oil Pollution Fund (OPF). Activities covered by the OPF include contingency planning, training and exercising, equipment purchase and maintenance (stored at strategic locations throughout New Zealand), and the cost of cleaning up unsourced spills.

Representatives from industry and organisations with environmental responsibilities make up the Oil Pollution Advisory Committee (OPAC) that provides advice to the Director of Maritime New Zealand on the administration of the OPF (MNZ, 2004).

Command & Control

The New Zealand Coordinated Incident Management System (CIMS) has been adopted by our Ministry of Civil Defence and Emergency Management and most agencies (Government and non-government) involved in emergency response including MNZ. CIMS is designed primarily to improve the management of the response phase to emergency incidents through common terminology and better coordination between the agencies involved. In the case of an oil spill response it allows MNZ to retain control of the spill event while at the same time allowing the command structure that exists within any participating agency or organisation to function independently to complete any task assigned to them by the On-Scene Commander (OSC) (Figure 1).

Figure2: New Zealand Oil Spill Response Structure Organisational Chart



Another significant advantage of CIMS is that it allows each agency to carry out their function without unnecessary alterations to their internal operational procedures, and the whole structure remains flexible enough that the response can be scaled both up and down as appropriate to the needs of the oil spill response.

National Response Team

Long time lapses between oil spill responses in New Zealand poses a challenge in maintaining regional responder motivation. Often over-worked regional council

employees were given their role within the system based upon drawing the 'short straw' principal, with little in the way of internal support. As a result, responder attrition was quite high. Their involvement in oil spill response and training ranged from 1% - 8% of their work time, with nearer to 1% being the norm.

The inception of the National Response Team (NRT) was a significant turning point in New Zealand's system. Skilled, experienced and highly trained personnel were identified throughout New Zealand and recruited to the NRT. Specialists within the NRT include environmental advisors, shoreline cleanup assessment teams (SCAT), wildlife responders, health and safety advisors, media/community relations advisors, and Tier 3 equipment operators. Appropriate members of the NRT are normally mobilised upon declaration of a Tier 3 response. However, members of the NRT may also be made available to assist Regional OSC's during Tier 2 incidents. With the formation of the NRT came a new and almost alien element; goodwill! These members tended to be very motivated and dedicated, and brought enthusiasm and an increased level of continuity to the task.

An example of the NRT system took place during the oiled wildlife response to the 'Jody F. Millennium' grounding in Gisborne in 2002. For the first time wildlife rehabilitation personnel found themselves working alongside technical staff, all of whom were motivated and shared the same level of dedication. Over the cups of coffee and at meals, gadgets developed in the mind of the rehab personnel were doodled on napkins and the back of envelopes. A few days later, technical personnel would turn up with a 'prototype' to trial. In such a manner, the Jody F. Millennium grounding was a very significant spill in New Zealand in terms of oiled wildlife response.

The Evolution of Oiled Wildlife Response in New Zealand

The aim of oiled wildlife response is to avoid, remedy or mitigate the impact on wildlife during any oil pollution response. In New Zealand, this primarily concerns marine and coastal birds, reptiles, and where safety considerations permit, marine mammals due to their protection status and community expectations. (MNZ 2006).

MNZ recognised the need to provide a credible and effective wildlife response, and the NZWHC was duly contracted in 1998 to develop and maintain a Tier 3 wildlife response plan. This plan is annexed to the National Oil Spill Response Plan.

The NZWHC are also contracted to provide a national wildlife treatment facility for up to 500 oiled wildlife equivalents, as well as personnel and equipment for use during an oil spill response (Morgan et al, 2009).

This agreement has since expanded to include assistance to the regions to develop their Tier 2 wildlife plans, aiming for consistency across all regions, and to facilitate a more seamless escalation from a Tier 2 to Tier 3 response. In addition, the NZWHC assists MNZ and regional councils with planning a wildlife component in national and regional oil spill response exercises. The NZWHC may also participate in these exercises.

This contractual agreement with the NZWHC ensures that best international practise is adhered to while prioritising human safety as well as animal welfare. Post release monitoring is now being considered strategically as an integral component of the rehabilitation process, and if a spill occurs where direct response action is not required to contain or recover the oil, wildlife response may be the only intervention undertaken (MNZ 2006).

As with overall response costs, wildlife response costs authorised by the OSC are fully recoverable from the spiller under both the Maritime Transport Act 1994 and the Civil Liability Convention 1969. The contract also recognises that oiled wildlife may be discovered after other response activities have ceased, and this is taken into account during the scaling down and termination of a response.

An important feature of the oiled wildlife response system in New Zealand is not only that the wildlife response integrated within the overall response, but also key personnel are employees or subcontractors of the NZWHC and this system does not rely on volunteer involvement. In the event of an actual spill event, the same applies to ALL personnel that become involved with the response in New Zealand, including the wildlife response. Any person who comes along to 'volunteer' their services during an oiled wildlife response goes through an induction process and effectively become employees of MNZ for the duration of their service.

Oiled wildlife response in New Zealand is not just as a contract between MNZ and NZWHC; the New Zealand Department of Conservation and Tangata Whenua (indigenous population) are also involved where protected or culturally significant species are threatened, and as key conservation management stakeholders.

While all of that describes what is written in MNZ's various strategy documents and Statement of Intent to the New Zealand Government, it does not describe what makes New Zealand's oiled wildlife response really unique. There has been a recognised need by MNZ for credible and effective oiled wildlife response since 1998 (MNZ 2009).

Since initiation of their contractual agreement in 1998, response preparedness and a healthy working relationship between MNZ and the NZWHC has developed steadily along the same lines as that described at the institution of the NRT above. The New Zealand system is quite unique. In addition to what is written into the contract between the NZWHC and MNZ, there exist such things as dedication, goodwill, pride and passion by both parties. It is these drivers rather than the words in the contract that has lead to the evolution of a 'special kiwi oiled wildlife response' system. In addition to the other outcomes of the MNZ/NZWHC contract, regular interaction between MPRS staff, regional council staff and NZWHC staff has morphed into regular **and frequent** interaction and reporting. Over the last decade, like the first steps of a toddler, this has gone from certain cautiousness to the certainty and trust of a marathon runner, and has consolidated the relationships between not just MNZ and NZWHC, but also regional councils and the NZWHC. These interactions are no longer just confined to the corporate level, but have filtered right down to the individual components that make up each organisation. For example, in recent years, the NZWHC has worked with those responsible for oil spill contingency planning within MNZ. This has resulted in more specific plans for areas of significant conservation value like the Hauraki Gulf and other areas that pose considerable logistical problems around access, in addition to significant conservation value, including Fiordland and the sub-Antarctic islands.

One advantage in New Zealand, which actually fosters this process, is that we are a small nation. The sentiment that motivates those involved in oiled wildlife response has gone even further than solid working relationships to friendship; meaning that OWR is even discussed over barbeques and rugby games! This has resulted in the relationships going beyond MNZ and the NZWHC. For example, NZWHC has also developed a close working relationship between the OWR team and environmental scientists (within MNZ and other contractors outside MNZ), who are also involved with oil spill response in New Zealand. This relationship has resulted in very close communication throughout any event and the tandem development of plans during responses and exercises. Because wildlife and habitat go hand in glove, it stands to reason that the same should happen with response activities and the 'site sheets' used to identify issues of environmental interest during a spill event also list specific wildlife concerns. This list will begin with anticipated wildlife species and numbers, and will be replaced with actual information as it comes in from the field assessment teams during a spill event.

These close working relationships that have developed over the detail have evolved into changes at the command level where OWR is even more integrated within the Incident Command Centre (ICC) than it was a decade ago, with OWR expertise now accounting for just over 10% of the NRT.

In contrast to the previous system where it was a stand-alone entity within the ICC, OWR now has both a planning and an operational presence within the ICC, resulting in incorporation of OWR both planning and operations teams within the spill's organisational structure. Quite often in the past OWR was even in a separate room; the advantage with the current system is that everyone (OWR and other operations) are

more aware of issues confronting other parties within the response, and the surprise factor (particularly around OWR size and costs), has been eliminated.

This more inclusive approach also extends to training. In addition to training of oiled wildlife responders (Morgan et al 2009), NZWHC staff are involved with in training of oil spill response management staff through training courses for both On-Scene Commander and Regional Responder Management training. (MNZ 2006). This involvement is by both didactic teaching during training courses, and through integral involvement in desktop scenarios. Involvement in training of management staff, in particular through the On-Scene Commander training, has the additional effect of consolidating relationships between oil spill management staff and NZWHC staff. This eases the job of the NZWHC in regional Tier 2 planning, as well as allowing professional relationships to form prior to a spill event.

In addition, NZWHC now also participates in annual regional council workshops and Tier 2 and Tier 3 exercises. The Maritime Transport Act 1994 requires that if there is not a Tier 3 response in 4 years, and equivalent exercise must take place. (MNZ, 1994). The need for exercises does not need to be described here, but it does provide the opportunity to expose NZWHC to new tools under development. One such tool was employed at a recent exercise in Otago where the scenario began as a Tier 2 response that escalated to a Tier 3 incident. This new tool addressed information management during a response which is now handled via a web based incident management system. This system interlinks all aspects of spill response and provides dispersed information from the command and control teams out to field teams with web access. At any stage, any number of responders can be connected and review what stage the response is up to and the issues facing the response effort. While operating at a Tier 3 level, there is an obvious need to get this system deployed to the Tier 2 regional teams and then provide the wildlife side of the response a complete information management response.

During the Otago exercise, OWR staff conducting field assessments were able to log onto this system and log the number and species of wildlife observed via remote internet access. This information was available to all at the ICC as soon as it was entered.

The Future

MPRS has recently completed a review of the training syllabus for oil spill responders in New Zealand and has developed an improved training curriculum that has just begun to be implemented.

Currently there is another risk assessment of the oil spill response system in New Zealand underway. Toward the end of this year or early in 2010, this will be followed by a capability review throughout New Zealand which will ask some very fundamental questions on New Zealand's obligations to the OPRC 90 Convention and the value for money aspect of spill response.

Given the dedication all partners bring to this field of endeavour in our country, we feel that New Zealand 'bats well above her weight' when delivering oiled wildlife response. Maritime New Zealand is very proud of the relationship it shares with NZWHC and the fruits of that relationship, and we are confident that the welfare of our

wildlife is well catered for under the oiled wildlife response system in place in New Zealand.

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