Waikato Regional Marine Oil Spill Contingency Plan 2021 to 2024

Volume 1 – Operational Arrangements

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Current and past WRC contingency plans

Current plans

Issue date	Doc numbers
27/06/2021	Volume 1: #18181776 Volume 2: #11208419
	Volume 2. #11208419

Past contingency plans

Issue date	Doc numbers
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2015/2018	Volume 1: #2371737 Volume 2: #2371751
2011/2015	Volume 1: #2028722 Volume 2: #2028725

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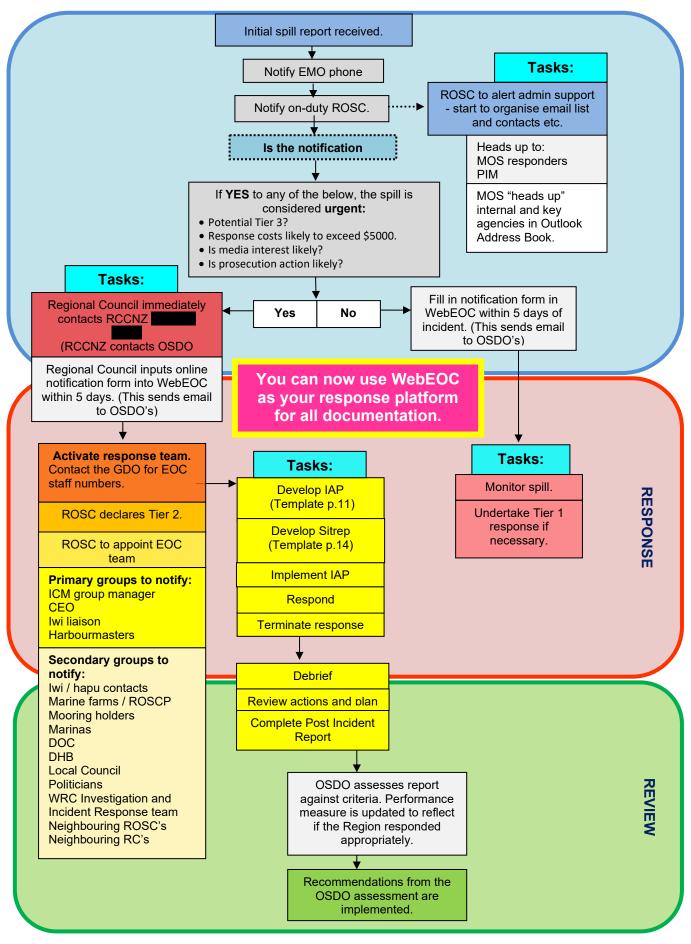
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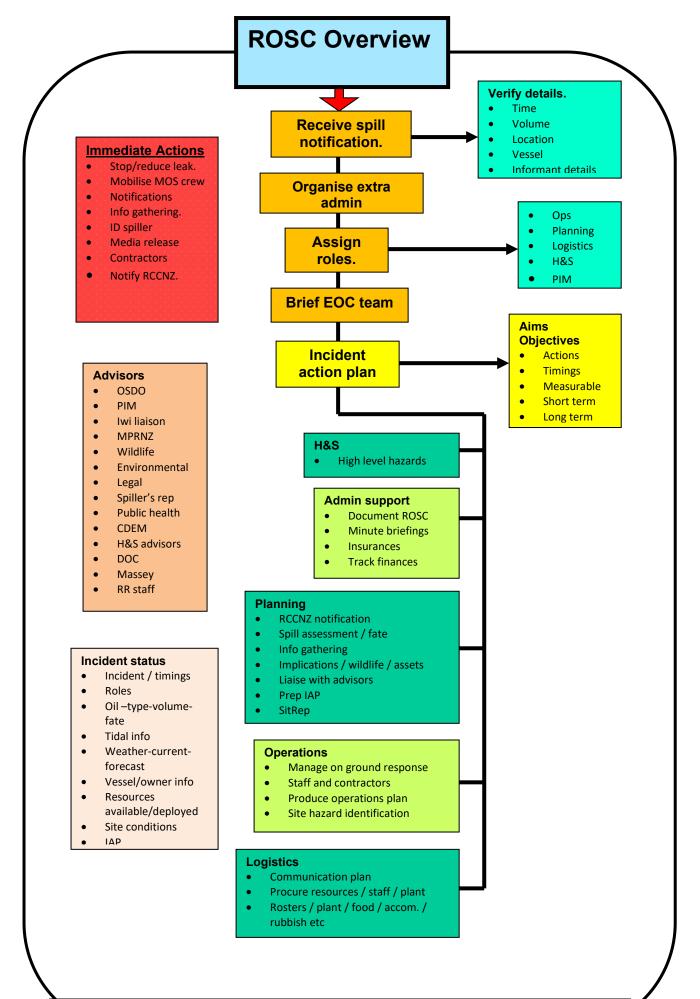
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Standard operating procedures





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ROSC Immediate actions checklist

Immediate actions	Stop/reduce oil flow		
(Not in order)	Notifications to RCCNZ	Ε	
	Input details into WebEOC	Ε	
	Information gathering (situation	onal awareness)	
	Spiller identification	Ε	
	Mobilisation of resources	Ε	
	Advance warning to responde	rs, politicians	
	Media release (prepare)	Γ	
Develop plan	Use Planning 'P'		
	 Considerations 	Ε	
	 Weather 	Ε	
	 Marine tides, currents e 	etc.	
	 Timetable hours of dayl 	ight [
	 Prevention of further sp 	illage	
	 Access 	Γ	
	 Security 	Γ	
	 H&S (refer to MOS SOP 	doc # 9591112)	
	 Resources available 	Γ	
	 Telecommunications 	Ε	
	 Weather/tide 	Ε	
	 Transport 	Ε	
	 Decontamination 	Ε	
	 Logistics/admin support 	: [
	 Legal 	Ε	
	 Interested parties 	Ε	
Briefings	Use GSMEAC		
	 Ground -Introduction 	E	
	 Situation overview 	Ε	
	 Mission - Plan (outline) 	Ε	
	 Execution (operations) 	Ε	
	Admin & Logistics	E	
	• C ommand and commun	lications	
	 Questions 	Γ	

First key contacts

Contact	Name/designation	Office	Cell phone
WRC	WRC after/hrs		
RCCNZ	First contact		
MPRS	Pollution response		
OSDO	MNZ Advice		
DHB	DHB Duty Officer		
ROSC	Richard Barnett		
ROSC	Derek Hartley		
ROSC	Andrew BuBear		
ROSC	Kelly Hosking (TCDC)		
Health and Safety	David Lewis		
Senior Responder	Mark Row		
Senior Responder	Mike Knight		
Senior Responder	Peter Head		
Senior Responder	Rick Liefting		
Senior Responder	Vaughan Kestle		
Responder	Alistair Parton		
Responder	Chris Bredenbeck		
Responder	Cliff Gibson		
Responder	David Stagg		
Responder	John Renata		
Responder	Mike Barr		
Responder	Paul George		
Responder	Phillip Duthie		
Responder	Robbie Nikora		
Responder	Robert Isaac		
Responder	Shaun Miller		
Responder	Stephen Wise		
Responder	Toby Kemp		
NRT	Amelia Luxton Claire Walker		
Business Support	Claire Walker		
Coastal Science Advisor	Michael Townsend		
Coastal Science Advisor	Hannah Jones		
Oiled Wildlife Response	Kit Squires		

After hours numbers	GDO on call 24/7	GDO will be able to access others
After hours numbers	WRC Incident Response 24/7	For Incident Response staff after hrs numbers
After hours numbers	Kenny Growden (Hauraki supervisor)	Staff after hours contact details
	Paeroa Depot	
MOS "heads up" internal and key agencies	Address book distribution list	
PIM	Wendy Valois	
ІТ	Duty IT staff	
BOP 24/7 pollution hotline	Ask for ROSC	
Taranaki ROSC	Environmental Hotline 24/7 ask for ROSC	
Auckland ROSC	24 Duty Officer (Press 0 for duty officer)	

Wildlife advisory team

Wildlife staff	Hamilton/Waikato centre	
WRC Wildlife Kit Squires Representative		
DOC Wildlife main contact Nick Kelly – DOC Thames		
Wildlife Advisor	Rob Chappell (contractor)as and when required	
National Advisor	OWRT on call 24/7 (led by Louise Chilvers)	

Maritime Services contacts

Name	Cell phone
Team Leader Maritime Services (ROSC and Harbourmaster for Waikato Region) Richard Barnett	
Local Maritime Officers	
Whitianga - Peter Head	
Whangamata/Tairua - Stephen Wise	
Deputy MO -Whangamata/Tairua/Coromandel Barry King	
Coromandel/Thames - Rod Edwards	
Hamilton to West Coast and North, Raglan - Toby Kemp	
Hamilton to West Coast and South - Chris Bredenbeck	
Nav Safety Officer- Hamilton office – Tiffany McClunie	
Administrator – Maritime Services - Pamela Copeland	
Taharoa Port and mining company contacts	
Port Taharoa Harbourmaster David Vicente	
Project Manager (Iwi contact) Greg Martin Taharoa Iron Sands	
Kawhia and Taharoa Port manager Len Woods	

ROSC's and Alternative ROSCs

Regional on scene commar	ider (contact duty ROSC first)	
Derek Hartley - Hamilton	Regional On-Scene Commander	
Richard Barnett - Hamilton	Regional On-Scene Commander	
Kelly Hosking - Whangamata	TCDC Regional On-Scene Commander	
Andrew BuBear - Hamilton	Regional On-Scene Commander	
Alternative on scene comm	nanders – from other regions (part of I	DOI)
Adrian Heays - Tauranga	BOP ROSC	
Mat Harrex	BOP ROSC	
Scott Robinson	BOP ROSC	
Auckland Council and Port	Authority	
Auckland	Ports of Auckland Ltd	Harbour Control (24hr DO) 1 ST contact for ROSC
Bruce Goff	Auckland ROSC	
Marc Davis	Auckland ROSC	
Christiaan Moss	Auckland ROSC	
Taranaki Regional Council		
Bruce Pope	Taranaki ROSC	24hr TRC Business number TRC a/h
Jared Glasgow	Taranaki ROSC	
Bay of Plenty Regional Cou	ncil	
BOP 24/7 Pollution Hotline	First choice for contact	0800 884 883 Ask for ROSC
BOP 24/7 Adrian Heays	BOP ROSC	
BOP 24/7 Scott Robinson (to be appointed)	BOP ROSC	
Matt Harrex	BOP ROSC	

ROSC responsibilities and powers

Maritime Transportation Act 1994

(NB – the following are extracts. Refer to the Act for full text and context)

- **303** *Objective of on-scene commanders*
 - (a) **Prevent further pollution** from the marine oil spill; and
 - (b) Contain and clean up the oil
- **305** *Powers of on-scene commander*
 - (a) Direct the master or owner of any New Zealand ship
 - (b) Remove any person obstructing a marine oil spill
 - (c) **Require the evacuation or the exclusion of persons**
 - (d) Totally or partially prohibit, or restrict, **public access on any road or to any public area** or any part of the sea
 - (e) **Remove from any road, public place, or from the sea,** in an area where a marine oil spill response is being carried out, any New Zealand ship, any vehicle, or other thing impeding that response, and where reasonably necessary for the purpose, may enter forcibly any such ship, vehicle, or other thing:
 - (f) **Carry out such inspections** as he or she thinks
 - (g) Subject to the provisions of <u>section 306</u>, require the owner or person for the time being in control of any land, building, vehicle, New Zealand ship, or any other real or personal property to place that property **under his or her control and direction**.

311 Additional powers of on-scene commander

- (a) **Disseminate information** and advice to the public relating to the marine oil spill:
- (b) **Carry out such works** as will control and clean up the marine oil spill:
- (c) **Provide any item, equipment, or facility** to assist with the control and clean up of the marine oil spill.

312 Limits on powers of on-scene commander

- (1) No power conferred by <u>section 305</u> or <u>section 311</u> may be exercised so as to conflict with the exercise of a power by—
 - (a) A person under <u>Part 5</u> of the Civil Defence Emergency Management Act 2002; or
 - (b) **A recovery Co-ordinator** appointed under the <u>Civil Defence Emergency</u> <u>Management Act 2002</u> and acting under that Act; or
 - (c) Any constable under <u>section 10</u> of the **International Terrorism (Emergency Powers) Act** 1987.
- (2) No power conferred by <u>section 305</u> or <u>section 311</u> shall be exercised so as to be inconsistent with any power exercised by the Director or the Minister under <u>Part 20</u>

1 Supporting information

1.1 Discovery and notification of a marine oil spill incident

The person receiving the oil spill report should record spill particulars in WebEOC to ensure spill notification procedures are initiated.

Waikato Regional On-Scene Commanders	
Derek Hartley	
Richard Barnett	
Kelly Hosking (TCDC)	
Andrew BuBear	

1.2 National On-Scene Commander designates and contact details around escalation.

Once a spill has been logged with RCCNZ the OSDO will be contacted by RCCNZ. The OSDO will escalate as required.

OSDO and National OSC	
Oil spill duty officers:	24hrs on call
National on scene commanders:	24hr on call

1.3 WebEOC Incident/Spill Notification

An Incident/Spill Notification should be completed as soon as possible, using WebEOC. See notes below on how to do this:

- Login to WebEOC: http://webeoc.maritimenz.govt.nz/eoc7/
- Enter your username and password.
- Click on MPRS Database
- Navigate to the Incidents/Spills tab
- Click the blue tab on the left 'Add New Incident/Spill'.
- Fill in the spill details, source details and incident response information.
- Press spell check and fix any issues.
- Once finalised, press save and add report.

1.4 Other notification requirements

Although Waikato Regional Council has overall responsibility for MOS incidents that occur within the New Zealand Marine Waters located in the Waikato Region, reports of incidents involving the following materials MAY need to be referred to the agencies shown:

Toxic chemicals	Waikato District Health Board, FENZ
Narcotics/drugs	Police
Explosives	Dangerous Goods (Worksafe)
Inland/freshwater incidents	Incident Response (WRC), TLA's

If the person receiving a report believes the pollutant to be toxic or otherwise hazardous, then they are to promptly forward the report to the Fire Service. If in doubt, the person receiving a pollution report should refer the details of the incident to the Fire Service.

1.5 Media relations

Guidance on Media and Community relations is provided in the National Plan supporting documents.

1.6 Evaluation and identification of a marine oil spill incident

The Regional On-Scene Commander shall on receiving a report of an oil spill or shipping incident:

- Investigate or arrange for an investigation to be immediately carried out to confirm the details surrounding the report then.
- Fill in and submit the Maritime New Zealand Notification Form on **WebEOC**. See 'Log Incident/Spill Notification Online' for instructions.

The **WebEOC notification** can be used as evidence in any legal proceedings against the spiller as well as being of assistance with respect to the response, particularly when notifying the Maritime New Zealand via the Rescue Coordination Centre. The Regional On-scene Commander will decide upon the appropriate course of action with respect to an oil spill, which may include:

\rightarrow No response required.

The Regional On-scene Commander will confirm that no response is required and prepare the standard report for Maritime NZ.

→ Response under \$5,000

The Regional On-Scene Commander / Pollution Manager is to collect evidence (samples, photos, Aide Memoire) and respond to the spill as appropriate. This will not involve activation of the EOC Team.

→ No immediate response required = standby mode

If no immediate response is required (e.g., because oil is heading offshore), then Regional On-scene Commander will:

- Put Incident Management Team on "standby".
- Advise **RCCNZ toll free 0508 472 269**. If required, the Maritime New Zealand Notification Form should be entered on WebEOC. See 'Log Incident/Spill Notification Online'.

- Establish monitoring of the slick and its likely direction of travel, using forecast weather and current conditions; and
- Be prepared to declare a response; and
- In circumstances where a response was avoided, prepare a brief report for the Council and Maritime NZ
- Notification of Waikato Oiled Wildlife Response Representative.

\rightarrow Response required.

If a response is required, the Regional On-scene Commander will:

- Determine whether the response should be a Regional (Tier 2) Response and make a declaration as appropriate or request escalation to National (Tier 3) Response (Refer to criteria on the next page); and
- Advise **RCCNZ ph. toll free 0508 472 269 (24 hrs)**. Fill in and submit the Maritime New Zealand Notification Form on WebEOC. See 'Log Incident/Spill Notification Online' for instructions.
- Instruct the Waikato Regional Council Investigation and Incident Response Manager or nominee to obtain samples of the spilled oil and photos of the event in accordance with the sampling instructions outlined in the National Marine Oil Spill Contingency Plan.
- Ring Duty Pilot to ascertain ship movements.
- Notification of Waikato Oiled Wildlife Response Representative.

\rightarrow Wildlife response required.

If a wildlife response is required, which potentially involves the mobilisation of Massey University, the OSDO should be consulted to determine if this is an appropriate response option. Any requests for the mobilisation of Massey resources should be made via the OSDO.

Department of Conservation (DOC)

The Role of DOC:

To ensure that in the event of a marine oil spill emergency that the necessary consents and approvals needed for an effective response associated with the management of land, flora and fauna are provided according to policy and, where these are not already in place, to do so without delay.

Under the Wildlife Act 1953, to authorise:

- Capture, handling, possession, and transfer of protected wildlife.
- Holding of protected wildlife in captivity for the purposes of treatment and rehabilitation, and to licence approved people and institutions to do so.
- Euthanasia of injured protected wildlife where necessary to avoid further suffering; and
- Liberation of protected wildlife after rehabilitation

Under the Conservation Act 1953, to authorise:

- As owner or occupier of land where entry is restricted, access by OSC's or their staff or agents, where needed for the effective control or mitigation of marine oil spills.
- The capture or euthanasia, where necessary, of any fauna found within these classes of land.
- The removal or disturbance of vegetation, gravel, sand and the like in the course of clean-up operations, or for a more effective response to a marine oil spill emergency.

Under the Marine Mammals Protection Act 1978, to authorise:

• The capture and marking or injured marine mammals, and their euthanasia, where necessary to avoid further suffering due to the effects of a marine oil spill.

Act as a contractor to industry, regional councils and the MNZ with support for oil spill planning and response logistics, communications, and personnel.

1.7 Escalation

Tier 1 response criteria

A Tier 1 response is a response that can be managed by the people at the site and does NOT require the assistance of the ROSC and regional responders.

This type of response will be described in the Oil Transfer Site Marine Oil Spill Contingency Plan (OTSMOSCP) or if no OTSMOSCP exists will be manged by suitably qualified and/or equipped responders. (e.g. a minor oil spill at a little used wharf manged by the deployment of absorbent materials)

It shall be escalated to become a Tier 2 regional oil spill response when the oil spill exceeds the clean-up capability of the **Tier 1** response.

Escalation will occur when the **site operator or informant** seeks the support of the Regional Council and/or if the ROSC considers that the response needed is beyond the capability that the site can provide. Once this happens the ROSC will take charge and control of the response. The response then progresses to **Tier 2**.

Tier 2 response criteria

An oil spill response may be declared to be a **Tier 2** response in the following circumstances:

- (i) The spill is within 12 nautical miles; and
- (ii) WRC is able to respond adequately to the spill within the resources available; and
- (iii) The spill exceeds the clean-up capability of **Tier 1**, or for which no responsible party can be identified; and
- (iv) The response costs will not be prohibitive for the council.
- (v) **Tier 2** can be declared regardless of oil reaching water.

If (i), (ii) and (iv) criteria cannot be met, then the Regional On-scene commander (or any person authorised by them) should request the National On-scene commander to declare a Tier 3 response.

Tier 3 response criteria

Tier 3 (a national response) is activated when the spill is outside of 12nm or when the regional council is unable to adequately manage the spill.

If the spill is beyond the capability or resources at the disposal of the ROSC, the NOSC can take responsibility for the response, if requested. If any **Tier 2** spill response appears to exceed the escalation criteria the NOSC can assume control of the response and it will be escalated to **Tier 3**.

Tier 3 oil spills are spills that are generally more complex, of longer duration and have the most serious actual or potential consequences. They require the greatest level of oversight and assurance and the most significant resources (national and international). The response is nationally led and coordinated by Maritime NZ.

If a Tier 3 response is declared/identified. Rescue Coordination Centre of New Zealand (RCCNZ)

The RCCNZ is the first point of contact for reporting oil spills:

Ph. 24hr Email Phone

0508 472 269	

1.8 Declaration of a Tier 2 response within an adjoining region

If the ROSC assesses the spill to be within an adjoining region's area of responsibility, then they are to refer the report (and any relevant information) to the appropriate contact person within that region.

National On-Scene Commander (NOSC) designates and contact details

In anticipation of an oil pollution incident requiring Maritime New Zealand involvement (a Tier 3 declared incident), National On-Scene Commanders (NOSC's) are appointed, pursuant to section **317(1)(a)** of the Maritime Transport Act 1994: (taken from the National Marine Oil Spill Contingency Plan, Annex 2).

The NOSC is contactable via the OSDO for the initial notification. The NOSC may give instruction to the ROSC as and when required. For the sake of clarity the ROSC shall execute any instructions given by the NOSC

1.9 Sampling and evidence collection

During any oil spill incident, a prime requirement is to obtain samples of oil from the polluted areas and from the suspected source of the pollution. It is the council's policy to hold to account those oil spill offenders whenever sufficient evidence can be obtained. The procedures to be followed for sampling oil spills are known by the WRC Incident Response team and this protocol will be followed.

When possible, the Incident Response team will be used for sample collection and establishing a chain of evidence. The Incident Response team from RUD have agreed in principle to assist with sampling during an incident.

1.10 Documentation and record keeping

Records of all communications including telephone communications, faxes, emails, texts, and file notes must be recorded and filed correctly, as must financial transactions and expenditure and a chronological account of the incident (incident log)

The ROSC shall appoint a person or persons to ensure that all records, notebooks entries logs, receipts, decisions, plans, minutes for each incident are recorded in one central repository.

For WRC that repository shall be the 'Discover' document management system. The record shall be in accordance with WRC policy and best practise.

The ROSC shall also ensure that all WebEOC required documentation is completed.

2 General directory

2.1 Notification to Iwi and Affected parties

Population Health			
Waikato District Health Board, Medical Officer of Health On Call, DHB Duty Officer Health Protection Officer a/hrs Email office hours ONLY			
Fisheries			
Sanford's - Coromandel branch	Brent Parker		
Marine farms			
Coromandel Marine Farmers Association	Tom Hollings		
Coromandel Oyster Farms			
Department of Conservation			
(Waikato Conservancy) (See also s1.2 Wildlife advisory team)	(Hamilton office) or 0800 36 24 68 Nationwide Doc Hotline		
Iwi, affected parties and key contacts			
 Tai-ranga-whenua (first contact) Contact with all Iwi Authorities within Waikato Region: Affected Hapu and Marae Affected Maori Landowners In all cases Zone Managers are the first contact. (Coromandel Iwi contact- Aniwa Tawa) 2nd contact 	See Current Zone Manager list for contacts details		

Ngāti Hei – Coromandel area Joe Davis	
Ngāti Porou ki Harataunga – Coromandel area John Tamihere	
Ngāti Huarere – Coromandel area Wanda Brljevich	
Ngāti Whanaunga – Coromandel area Mike Baker	
Hauraki Collective Lead – Firth of Thames area Paul Majurey	
Hauraki Māori Trust Board – Firth of Thames area David Taipari	
West Coast (Taharoa)	
Port Taharoa iwi contact is Greg Martin of Taharoa Ironsands	
Port Taharoa harbour master David Vicente	

2.2 Useful reference documents

2.2.1 Iwi management plans in the rohe (region):

Iwi management plans assist the council by:

- identifying iwi of the region, their rohe, values and interests
- aiding decision-making
- providing a planning tool for engagement and partnerships
- outlining preferred methods of engagement

Hauraki - Whaia te Mahere Taiao a Hauraki

Ka Ru a Poutama - Te Whakauakitanga o Poutama (Iwi Management Plan 2010)

Maniapoto - He Mahere Taiao

Motakotako Marae Hapu Management Plan

Ngati Hikairo Iwi Management Plan - Freshwater

Ngati Hikairo Heritage Management Plan

Raukawa Fisheries Plan

Te Rautaki Taiao A Raukawa - Raukawa Environmental Management Plan 2015

<u>Rising above the mist - Te aranga ake i te taimahatanga : Ngāti Tahu - Ngāti Whaoa Iwi</u> <u>Environmental Management Plan</u>

Tahinga Environmental Management Plan

Te Arawa River Iwi Trust - Fisheries Plan

Te Arawa River Iwi Trust - Environmental Management Plan

Tūwharetoa - Ngāti Tūwharetoa Iwi Environmental Management Plan

Waikato-Tainui Environmental Plan, Tai Tumu, Tai Pari, Tai Ao

2.2.2 WRC reference documents:

Hydraulic Travel Times of Major Waikato Rivers DM # 973399

Watercare Services Waikato WTP Intake Location DM # 3316278

2.3 Waikato road network management areas

Contact NZTA or refer to Waikato Regional Councils 'Condensed Flood Manual'. (Doc # 3725070)

2.4 Templates

Immediate Action Plans (IAP's)

WRC Oil Spill IAP TEMPLATE can be found here - Doc # 2355886

WRC Oil Spill Sitrep Template can be found here Doc # 2344589

The ideal is to record all spill response details directly into WebEOC to ensure all parties are informed of response details and all-important particulars are recorded permanently and are easily accessible.

Situation Reports (SitReps)

SitReps will be released daily (or earlier if required).

WRC Marine Oil Spill SitRep template can be found by clicking on the link below, or by accessing (Doc# 2229701)

https://discover.wairc.govt.nz/otcs/llisapi.dll?func=ll&objaction=overview&objid=2344589&logStop ConditionID=3525952 1462313754 1 open

Public information

Media responses will be issued by the Public Information Manager (PIM) on behalf of the ROSC. Any media enquiries should be referred to the WRC PIM

Further information

For the latest media releases, refer to www.waikatoregion.govt.nz

For the latest weather and marine forecasts, refer to www.metservice.co.nz

For the latest tide forecasts, refer to <u>www.niwa.co.nz</u>

2.5 Communications

All communication to the Waikato Regional Council regarding any oil spill incident is to be directed to **0800 800 401**: Staff will direct all media requests to the Emergency Operations Centre.

ROSC and EOC key contact details and notifications are in the front operations section of this section.

During an incident, all communications is to be directed to the intelligence section of the EOC. Intelligence will disseminate the information through the correct channels.

3 Response termination and demobilisation

3.1 Response Termination

Prior to response termination the ROSC must ensure the IAP objectives have been met. If the IAP objectives have not/or cannot be met, the IAP objectives need to be reassessed or further cleanup actions carried out till the objectives are met in full.

Once the IAP objectives are met the On Scene Commander will consult with Waikato Regional Council's Chief Executive Officer, the Department of Conservation, Local Iwi, Ministry of Fisheries, territorial authorities, the fire service, and other interested parties before recommending that the clean-up operation be terminated. If this decision is likely to be contentious, then the decision may be referred to the Director, Maritime New Zealand, for resolution.

All section managers of the Emergency Command Centre (EOC) shall compile a detailed events log which should be passed to the ROSC. The ROSC is responsible for ensuring that the event history is compiled, costs are recovered, enforcement procedures are undertaken (if warranted) and for arranging the running of post incident debriefs.

Equipment that is used during the response operation should be returned to its storage depot and all WRC equipment and PPE assessed and replaced as required. Any damage of MNZ gear to be notified.

3.2 Debriefing

The Council will require a review and audit of a Tier 2 response operation. Accordingly, the principal ROSC for the response is to ensure that a completed record is kept of significant details of the response and is to collate all reports from supporting organisations and prepare a final report for Council.

A debriefing, chaired by the principal ROSC will be held following any major spill so that the response plan can be revised based on lessons learned while memories are still fresh. The ROSC is responsible for arranging the time and venue of the debriefing and shall inform those people and/or representatives of supporting organisations of such arrangements. Those persons and/or representatives are expected to attend the debriefing.

The principal ROSC in control of response or representative must complete a 'Post Incident Report' in WebEOC which is assessed by the OSDO. The performance measure of the Council is updated to reflect if the Region responded appropriately. Recommendations from the OSDO assessment are to be implemented.

3.3 Post operations – documentation of costs/litigation

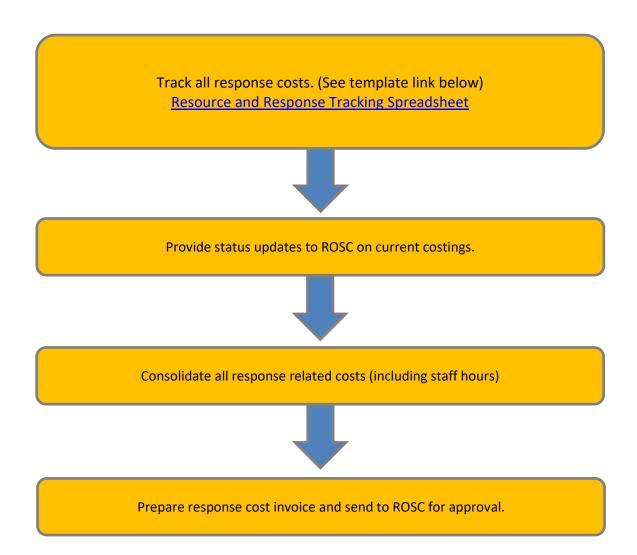
Response staff are required to record time allocated to the response to a cost code (TBD during the response)

All documentation is to be filed in discover with a specific title relevant to the incident.

It is the responsibility of the Incident Controller (ROSC) or delegated person to ensure that all response costs are accounted for. This includes costs occurred post incident. Every effort must be made to recover the costs of clean-up from the spiller.

Response cost tracking plays a critical role. It is imperative that all costs are monitored throughout the response and the ROSC is aware or the current state. the following flowchart below provides a high level overview of the cost tracking process adopted by WRC and include the cost tracking template.

Marine Oil Spill Response Cost Tracking Flowchart



Important documents

National Marine Oil Spill Plan and Supporting Documents (WebEOC) Oil Spill Response Guidelines for Regional Councils (WebEOC) Identification of Oil on Water (laminated booklets)

3.4 Learnings from past events

Learnings from Rena in October 2011 highlighted the need for and importance of working more closely with tangata whenua in the planning and response to marine oil spills. A formal report into the incident has since been released by Central Government (Independent Review of Maritime New Zealand's Response to the MV Rena Incident on 5 October 2011) recommending a range of actions be undertaken as a means of improving iwi communication and engagement in marine oil spill management. Part D of the report outlines the key recommendations from the reviewer and can be found at pages 102-104.

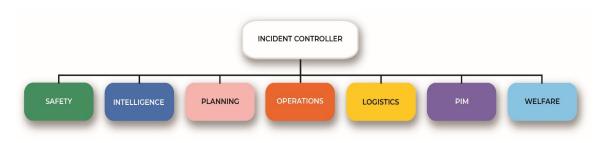
4 Emergency Operations Centre (EOC)

EOC location

Council's preferred EOC will be at the Group Emergency Management Office located at 94 Bryce Street Hamilton (floor 2). If this location is not available, council headquarters at 160 Ward Street may be used.

EOC Structure

The 'Coordinated Incident Management System (CIMS)' will be the structure adopted by council for all Marine Oil Spill responses. In the context of a marine oil spill response, the ROSC is the Incident Controller.



EOC resources

EOC resources are located in the GEMO and are available at short notice. Supporting documentation and additional topography and bathymetry maps are available online. GIS capability is also available for production of specific maps upon request.

See below for the resource list.

5 WRC response equipment

5.1 Mobilisation instructions

Once the level of response has been determined, then the type of equipment can be determined by the ROSC. The ROSC should activate the appropriate personnel from the response team listed in WebEOC.

Equipment is located at WRC's Northgate depot. Access to these stores is controlled by Waikato Regional Council. The point of contact is Michael Knight **Contact is on Phil Duthie**

5.2 Transportation

Where spills require road transportation, there is an oil spill trailer and a single axle crane truck immediately available at the Northgate depot.

Northgate has a single axle Hiab crane truck that may be suitable for rapid deployment.

Waikato Regional Council may contract transport companies listed in this annex who will be able to supply a truck at short notice. Pollocks Cranes are the preferred supplier. Note that transport trucks are not off road/4WD and may not be able to negotiate small access roads.

Waikato Regional Council owns several **4WD flat deck Utes** that may be able to transport the equipment from the truck over the more inaccessible terrain.

5.3 MNZ equipment (see appendix 4 for details)

NB Use of Maritime NZ gear from another region requires Maritime NZ approval **before** it is mobilised. This is carried out through the Oil Spill Duty Officer.

Refer MNZ loan agreement doc # 8875271

5.3.1 Responsibilities for and details of Maritime New Zealand equipment

Responsibilities of Maritime NZ

Maritime NZ responsibilities are set out in the contract between the Maritime NZ and Waikato Regional Council, a copy of which is held by the Regional On-Scene Commander.

Weight and dimensions of Maritime NZ equipment

The majority of Maritime NZ equipment is pre-packaged in numbered boxes with collapsible sides, a pallet type base and of a size appropriate to the equipment contained. The dimensions and weight of the loaded boxes varies according to equipment type, but all are intended to fit on to road trailers and into commercial aircraft that have been converted to a cargo configuration. They will not fit into a Boeing 737 in the passenger configuration. Because of the nature of their construction, they may be stacked only two high. These boxes are marked to show their general contents and loaded weight; a more detailed list of contents is enclosed within the box.

Equipment that is <u>not</u> pre-packaged within a box is annotated with an asterisk (*).

Booms are generally stored 100 metres per box with all the necessary moorings, buoys etc. included. The only exception is:

• Land/sea or shore guardian booms which are packaged 80 metres per box.

5.4 Storage, maintenance and hire of Maritime NZ equipment

5.4.1 Responsibilities of Maritime NZ

The Maritime New Zealand will:

- a) Refund WRC the actual and reasonable costs of storing and maintaining the equipment positioned in the Waikato region.
- b) Bear the cost of delivery and return of the equipment.
- c) Loan the equipment for an indefinite period to be decided between WRC and Maritime NZ.

5.4.2 Responsibilities of Waikato Regional Council

Waikato Regional Council will:

- a) Take delivery of the designated equipment at a mutually agreed place.
- b) Make the equipment immediately available for use or re-deployment by the Maritime NZ in an emergency or otherwise anywhere in New Zealand or overseas, at the request of the Maritime NZ.
- c) Assist, if requested by the Maritime NZ, in the emergency re-deployment of the equipment anywhere in New Zealand by advising and/or procuring transport arrangements at the Maritime NZ's expense.
- d) Except when deployed for actual or simulated oil spills, always store the equipment in a secure, clean and dry storage area, enclosed from the weather and vermin free.

- e) Recover from the polluter the cost of equipment used in a response or clean-up operation. The rates to be charged to the polluter are those established by Maritime NZ for the hire of the equipment.
- f) Obtain prior permission from Maritime NZ for the use of the equipment for purposes other than marine clean-up response operations or for the training purposes of the Waikato region. If approval from Maritime New Zealand is given, then WRC shall ensure that the hire agreement supplied by Maritime NZ is signed and complied with by the equipment's user, and that moneys accrued from such hire is credited to the Maritime NZ (less administration costs of the Council). Additionally, WRC is to ensure that the equipment is returned in the same condition as it was hired out, that remedial repairs are made at the expense of the user, and that the owner is informed of any damage or deterioration incurred.
- g) Keep Maritime NZ informed of the equipment's serviceability, location and how it may be immediately obtained.
- h) Keep the equipment, during the period of the loan, in good repair and condition (fair wear and tear excepted) in accordance with the maintenance schedules provided by Maritime NZ. In doing this, WRC is to ensure that repairs retain the structural integrity and performance of the equipment, are undertaken by a contractor approved by Maritime NZ and that Maritime NZ be consulted before repairs exceeding \$500.00 are undertaken.
- i) Indemnify and keep indemnified Maritime NZ from and against all actions, claims, proceedings, demands, losses, expenses, and costs of every kind whatsoever which may be brought against or upon Maritime NZ, or which it may incur, sustain or be put to by reason of or arising out of or in any way attributable directly or indirectly to the loan of the equipment and its use by WRC or any third party.
- j) Operate the equipment only under the supervision of person(s) trained in its use by Maritime NZ in accordance with the operating procedures forwarded with the equipment, and in accordance with any supplementary instructions given by Maritime NZ. WRC will ensure that any third party operates the equipment in accordance with the procedures forwarded with the equipment and any supplementary instructions given by the Maritime NZ.

Insurance

The equipment is insured by Maritime NZ except when hired by a third party who shall take out insurance as part of the hire agreement. WRC will not be liable for damage to the equipment except where such damage was caused by wilful misconduct or gross negligence on the part of Council, or where such damage results from a breach of this agreement by Council.

Breach of agreement

If WRC breaches this agreement, and as a result of such a breach the equipment is damaged or lost, WRC may be liable to Maritime NZ for the damage or loss. Such liability may include the total cost of repairing or replacing the equipment to Maritime NZ's specification.

There shall be no assignment under this agreement without the consent of Maritime NZ.

Termination

The agreement for the loan of Maritime NZ equipment to WRC may be terminated by either party during the period of the loan by giving not less than one week's notice in writing to the other, and when this agreement is so terminated, WRC will allow the Maritime NZ to retrieve the equipment from the place where delivery was taken, or at some mutually agreed place.

Approved uses

- Marine oil spill response.
- Marine oil spill exercises conducted in the region under the control of the Council.
- Marine oil spill training.
- Maintenance

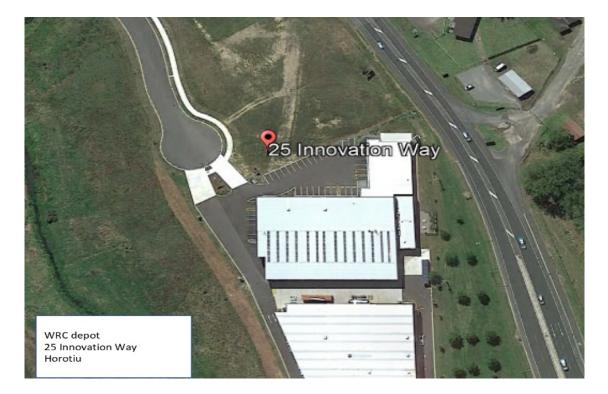
Mercury and Genesis Energy are also possible sources of extra equipment and personnel.

5.5 WRC Northgate Depot: Primary storage site

For access to the Northgate Depot contact:

Michael Knight or Phil Duthie

Call 0800 800 401 for 24-hour contact



5.6 WRC vehicles

WRC vehicle details for staff: Doc # 1672885.

5.7 WRC Drones

In the event of a marine oil spill response, WRC drones are used to provide footage of the spill incident location, in some cases the incident may occur within a No Fly Zone (NFZ). WRC have liaised with Flight Test NZ to unlock a handful of our drones so that they may fly within a NFZ in an emergency. The below table is a list of our submitted RPAS qualified pilots and drones that may be utilised within NFZ's.

Pilot	Phone	Email	Drone dept location
Chris Bredenbeck (Senior Harbourmaster)			RUD – Maritime Services
Peter Head (Harbourmaster)			RUD – Maritime Services
Phil Mourot			Regional Resilience
Robert Isaac Paul George Kent Morrissey			RUD – Incident Response
Tane Desmond			ICM – Hamilton
Mike Theobald			ICM – Paeroa
Scott Cantley			RUD

6 Contractors

See document # 3318022 for approved contractor list.

6.1 Divers

Divers	
Fielder Marine Coromandel	
DiveCom	

6.2 Trucks

Transport (freight) companies	
Pollock Cranes	
Ask for remote Hiab. Registered contractor	
Clinton Higgins	
Mainfreight Transport Ltd	
Waitoa Haulage Ltd	

6.3 Fuel recovery

Fuel recovery equipment	
Six ICB's now located at Whitianga. One at Northgate. These could b hand pump/vacuum pot or low voltage pump (DC). The aluminium ba be ideal to transport the ICB's.	•
Bay underwater services	Soren Nielsen

6.4 Aircraft

Aircraft
NBContact OSDO in first instance for aircraft use to see if MNZ have any contracts in place for the region. Do not have to be local as flight times can be short from surrounding areas.
Contracted services of helicopters – Heliworx, Phone Alister See note below and ICM contractor list if further contacts required (contractor database – Intranet)
Contracted services of fixed wing aircraft: Waikato Aviation - Contractory Chief Pilot Tony Petch – Contractory
See ICM contractor list if further contacts required (contractor database – Intranet)

6.5 Drones

Drones for surveillance	
Green Streams LTD	As required contracts in place Contact Admin support for details
Natural Solutions	As required contracts in place Contact Admin support for details
In House Waikato Regional Council	Harbourmasters Incident Response

6.6 Boats and Maritime Officers

Boats and harbour master assistance		
Richard Barnett		
Navigation & Safety Harbourmasters & Deputies: Refer - (Doc # 4409452)		

6.7 Waste

Waste oil disposal and recove	ry equipment disposal	
Preferred Supplier: EnviroNZ	0800 240 120	
•	viroNZ to provide nationwide wast a Tier 2 or Tier 3 oil spill response. NZ are below In order of call:	-
Des McCleary	Onehunga Auckland	
Wayne Plummer	Onehunga Auckland	
Dean Burwell	Christchurch	
Wayne Plummer	Onehunga Auckland	
Or contact MPRS or OSDO for ad	vice if required	
Vacuum/Sucker Trucks		
Allen's United Waikato Ltd		
Allen's United	Paeroa	
Waste oil recycling companies	5	
Waste Petroleum Combustion	Auckland	
Transpacific Technical Services	East Tamaki Auckland	
Marine Services Ltd	Mt Maunganui	

6.7.1 Temporary storage

Oil and oiled debris, wool booms etc. collected from the response operation is to be stored in suitable containers/vessels awaiting disposal. There are a number of vacuum trucks in the region that may be available to store oil. Other storage vessels may include miniskips etc. Temporary storage vessels, if possible, should be lined with plastic sheets. This will prevent possible leaks and will avoid the problems of cleaning the skip at a later time. Temporary storage containers should also be covered to prevent overflow from rainfall and to minimise the amount of rainwater to be removed.

It may also be possible for a pit to be excavated and lined with plastic that would act as a temporary storage site.

6.7.2 Oiled equipment

Waikato Regional Council's Northgate Depot has facilities available for the cleaning of oiled response equipment.

The organisations listed above under Vacuum Trucks and Waste Oil Recycling Companies may have appropriate facilities to clean oiled equipment also.

7 Cost tracking and accounting

All costs incurred for the use of plant and personnel plus items consumed should be itemised, recorded, and collated. It is important to involve finance early on and use purchase orders if at all possible.

<u>Claims for reimbursement may be declined for persons or organisations that carry out works that</u> <u>are not approved by the On Scene Commander or authorised representative.</u>

Approximate response costs for quick tracking

Resources	Approximate costs
Personnel	
Responder	\$1,000/day per person
Vessels	
Small vessel	\$650/day
Tug and barge combo	\$1,000/day
Commercial (Bay Underwater Services)	
Dive Worx (8m length, large deck and loading platform)	\$800/day (including certified skipper)
Tuahine (14m length & twin screw tug)	\$3500/day (including certified skipper)
Te Awaroa (18mlength, large deck)	\$3500/day (including certified skipper)
See doc #3280625 for full quote	
Tug boat	
Small fuel carrier	\$145,000/day
Vehicles	
Vacuum truck use	\$205/hr
Vacuum truck standby	\$150/hr
Oil disposal (Waste Management NZ)	\$189/tonne
WRC Hiab truck (no standby charge)	\$1.5/km
Hire car	\$60-\$70/day
Aircraft	
Fixed wing aircraft	
Helicopter (Helitrips)	
-	\$2,070/hr
5 passenger	
5 passenger 5 passenger standby	\$3,000/day
	\$3,000/day \$1,250/hr

Wildbase Staff – professional time ¹	
Wildlife Operations Coordinator	\$1600/day
OWF Supervisor	\$1400/day
Wildlife Veterinarian	\$1400/day
Rehab Unit Leader	\$1250/day
Facility Unit Leader	\$1250/day
Travel to and from site	\$500pp
Accommodation and expenses	\$250 pp/day
Facility set up costs (plumbing, containers, pools, staff facilities, intake, pre + post -wash areas)	Allow \$5000
Facility operating costs (water, power, wildlife + personnel food/water)	Allow \$500/day
Wildbase Equipment (OWR consumables – medical/PPE/incidentals)	Allow \$5000
¹ May also need regional responders	
Source: <i>Massey University DM</i> # <u>3294655</u>	
Other	
Portaloos (SuperLoo.co.nz)	\$160 for up to one week including delivery and pickup. For immediate hire there is an additional call out cost of \$95.
Oil tank storage and fuel transfer	Whitianga now has 6 IBC totes and 1 in Northgate depot
Catering	\$50/day
Food allowance	\$100/day
Accommodation	\$130/day
Divers (Fielder Marine)	
Dive team	\$2,500/day
Small job	\$200/hr
Table last updated: Nov 2017 🗹	

NB It should be remembered that standby costs can be very close to deployment costs. Sometimes better just to deploy.

8 Wildlife resources

8.1 Wildlife advisory team

Wildlife staff	Hamilton/Waikato centre	
Coromandel Area*	Thames – Nick Kelly	
WRC Wildlife Representative*	Kit Squires	
*Response capability is	now provided by way of the Nation	al contract with Wildbase
Wildbase		

8.2 Temporary rehabilitation centres

Temporary Rehabilitation Centres (TRC's) can be established at the Hamilton Zoo and/or Hamilton City Councils wastewater treatment station.

Agreement in principle has been reached with both venues and memorandums of understanding (MOU's) to reflect such agreement are being developed as of June 2021.

8.3 Temporary rehabilitation centre requirements

Temporary rehabilitation centres, in the absence of a national or regional purpose-built facility, provide accommodation and facilities for the rehabilitation of oiled wildlife.

NB. Oiled birds have a weakened immune system and are susceptible to fungal pneumonia. Facilities that have been used to store straw, hay, timber, or other agricultural products should NOT be used as a holding or rehabilitation centre.

The temporary rehabilitation centre must provide:

- Adequate space a minimum of 1m² per bird.
- Adequate ventilation to vent noxious fumes emanating from birds.
- Three phase power.
- Numerous power points.
- Abundant fresh water 75mm source pipe preferred.
- Industrial or specialist water heating system.
- Concrete floors with adequate drainage in all areas.
- Toilets.
- Telephone lines.
- Proximity to relevant modes of transportation (airports, highways).
- Level ground outside the facility to: build pools (with adequate drainage); store liquid waste; store equipment and to provide room for expansion of operations.

Ideally the temporary rehabilitation centre will also have:

- Internet connection
- Concrete floors with adequate drainage
- VHF or sideband radio.
- Kitchen.
- Showers.
- Office space.
- Fenced yard.
- Truck access doors.
- Security system.
- Active ventilation systems.
- Temperature control.

8.3.1 Temporary holding centres provide accommodation and facilities for the immediate triage and stabilisation of affected wildlife prior to transportation to the Temporary Rehabilitation Centre (Tier 2/3)

Birds and mammals	Contact	Facilities	Capacity
Hamilton Zoo	Cheridan Mathers, Curator DDI: Mob: Email:	Limited space for initial holding and washing phase but ample space for longer term rehabilitation. Veterinary facilities. Ventilation adjustable and adequate in all areas. Heaters present in most rooms and portable heaters available. Numerous power points. Abundant fresh water, including hot water. Concrete floors with adequate drainage in all areas. Wastewater facilities currently being reviewed and updated. Water treatment for zoonosis, but oiled water might require hiring of a storage tank and sucker truck. Ample fridge and freezer space and separated kitchen facilities (no cross contamination). Staff room that includes toilet, shower, kitchen and rest area. Office space. Telephone lines at office and staff room. Close to relevant modes of transportation (airports, highways). Level ground outside the facility to: build pools (drainage may be a problem), store liquid waste, store equipment and to provide room for expansion of operations. Has truck access doors. Excellent security system, including fences.	25 Birds in washing area, with capacity for approximately 150 birds (post washing).

Tier 3 Rehabilitation Centre for Birds and mammals	Contact	Facilities	Capacity
Pukete Wastewater Treatment Plant	Ben Fantom Operations Team Leader – Treatment Email:	TBC Limited space for initial holding and washing phase but ample space for longer term rehabilitation. Wastewater facilities currently being reviewed and updated. Water treatment for zoonosis, but oiled water might require hiring of a storage tank and sucker truck. Staff room that includes toilet, shower, kitchen and rest area. Office space. Telephone lines at office and staff room. Close to relevant modes of transportation (airports, highways). Level ground outside the facility to: build pools (drainage may be a problem), store liquid waste, store equipment and to provide room for expansion of operations. Has truck access doors. Excellent security system, including fences. Landing zones for helicopters	TBC

8.4 Oiled wildlife response equipment

Regional wildlife kits

The regional wildlife kits are stored at the WRC Northgate depot.

The following mobile facilities are available:

- Blue box of wildlife first response equipment all regions
- Oiled wildlife response trailers 4 in total (Auckland, Palmerston North, Christchurch and Bluff)
- Mobile bird washing facilities 2 modified shipping containers based at Massey, Palmerston North

Note: the closest trailer is at Te Atatu and can be mobilised via the OSDO.

Massey University (24hr) or Maritime NZ, Oil Spill Duty Officer

NB The regional kits and the mobile units are **start-up** units for small numbers of birds for the initial stage of a response. They are **not substitutes** for Temporary Holding Centres and Temporary Rehabilitation Centres.

Regional equipment requirements

An inventory of the items of equipment that will be required to implement a regional wildlife response operation is listed below. All of these items with the exception of Waratah stakes and Bird holding pens are contained in the Regional Wildlife Kit.

Capture	Stabilisation
(for full list see doc # 2010487)	
Transport boxes Matasorb (sorbent mats) Pillowcases Wildlife collection tags Long handled dip nets Tyvex suits (PPE) Nitrile gloves (disposable) (PPE) Safety sunglasses (PPE) PVC gloves (PPE) High visibility safety vests (PPE) Whistles Hibitane/Hibiclens disinfectant - 500ml Paper towels Alcohol hand gel (small bottles) Field notebooks (plastic paper) Pencils Field Guide to Birds of NZ Infectious waste bags Plastic leg bands for bird ID Sharpie pens	50ml syringes, without catheter 20ml syringes, without catheter 10ml syringes, without catheter Roll of silicone tubing. Cotton buds 0.9% NaCl (500ml bottle) Squeeze bottles Digital thermometer Electrolytes, powder <i>Also contains dead bird collection and</i> <i>administration equipment, for full list see doc #</i> 2010487

Recording equipment	Storage equipment
Name labels	Crates
Clipboards / pencils / pens / permanent markers / pads files, etc	Storage Bins
Temporary holding / rehabilitation centres	Veterinary
Bird holding pens - 3 layer ply	Microcontainers - heparinised
Extension cords	Critaseal
Nylon rope - 4mm	Glucostix 2646
Shade cloth (eg 910mmx50m)	Hibiclense disinfectant - 500ml
Waratah stakes	Isopropyl alcohol - 1000ml
Squeeze bottles - 500ml	Lanolin ointment - 500ml
Digital thermometers	Microscope cover-slips/slides
Weighing scale	1ml, 3ml, 10ml syringes
Toothbrushes	50ml syringe catheter tip
Cotton balls	50ml syringe - luer lock
Rubbish bags	5ml syringe
Towels	Adhesive tape - 12mm, 25mm
Food dishes	Feeding tube - 8Fr/12Fr a 16"
Heating lamps	Gauze pads - 5x5 cm
Birdwash (20 litre drums)	Gauze rolls
Polythene tarps (4mx6m)	Cotton Swab
Scrub brushes	IV Catheter 24G x .75"
Pails (eg 10 litre)	Lactated ringers soln 1litre
Access to animal food source	Microhematocrit tubes
	Needles - 23Gx1", 25G x 0.63"
	Oral thermometer
	Plasma-lyte
	Saline for irrigation - 500ml
	Sharps disposal bin
	Stethoscope
	Winged infus'n set - 25gx3/8x3.5"60
	Torch-diagnostic pupil
	Coprokit
	Activated charcoal 1kg
	Paraffin oil - 2litre
	Gatorade drink crystals - 500gm
	Bandage scissors
	Flexible bandage - Coflex 5cm
	Framaxin Ophthalmic ointment
	Squeeze bottles 500ml

9 Communication equipment (dedicated)

Waikato Regional Council does have four short range radios to assist with equipment deployment. These reside in the Regional Resilience team.

These radios are compatible with marine radio VHF frequencies. (allows for comms between maritime officers aboard vessels and land based responders.

CDEM has a full range of radios installed in their new premises in central Hamilton. Short wave, VHF, Fleet link, Amateur radio.

10 Mobilisation instructions

10.1 Mobilisation procedures

Mobilising personnel

Once the level of response has been determined, then the personnel requirements can be determined by the Regional on Scene Commander. The ROSC should activate the appropriate personnel from the advisory team and instruct an appropriate member of the IMT to activate the personnel required in accordance with the mobilisation requirements outlined here.

All orders for equipment and the services of personnel should be authorised by the ROSC.

The ROSC may request additional resources from adjoining regions and Maritime New Zealand be mobilised to support a Tier 2 operation in the Waikato. Such requests are to be made to the Oil Spill Duty Officer, or the Maritime New Zealand Oil Spill Service Centre. Other resources are available from MNZ.

Mobilisation requirements

These instructions set out the procedure to be followed when mobilising personnel in response to a marine oil spill. The decision to mobilise personnel will be made by the On Scene Commander

Priority for mobilisation

For cost and administrative purposes, personnel should be mobilised in the following order of priority:

- 1. Waikato Regional Council On Scene Commander
- 2. Regional Responders and Wildlife Advisory Team
- 3. Adjacent regional councils

10.2 Mobilisation requirements

The person(s) engaged by the Regional on Scene Commander to mobilise responders are to ensure that:

- a) responders are appropriately trained for the job they will carry out.
- b) responders adhere to WRC's health and safety policies at all times.

- c) responders are adequately attired and have adequate safety equipment, including personal flotation devices, if appropriate
- d) transport to the appropriate site is arranged for the responders, and the responders are informed of these arrangements.
- e) responders are briefed on where they will be working, for approximately how long they will be deployed in the field (hours, days or longer), and who they are to report to on arrival.
- f) the ROSC is informed who the responders are and what their estimated time of arrival will be.
- g) if required, adequate accommodation is arranged for the responders, with transport to and from the site at which they will be working.
- h) adequate first aid and medical facilities are arranged.
- i) sufficient and timely relief personnel is provided.
- j) the ROSC, or the ROSC's administration/ financial co-ordinator is informed of the responders' name, hourly pay rate, and commencement and finish times for payment purposes.
- k) the responders next of kin is recorded and informed of any serious matter which directly affects the responder.
- I) Staff are transported back to base and debriefing is arranged on their release by the ROSC.

10.3 Oil spill response trained personnel

Personnel responsible for implementing the plan and responding to marine oil spills shall receive training appropriate to their responsibilities in accordance with Maritime NZ training requirements. Waikato Regional Council shall keep the minimum number of trained personnel. All trained personnel responsible for implementing the plan shall meet the Maritime NZ training revalidation requirements. Maritime NZ requires a minimum of 20 staff trained and capable of responding.

10.4 WRC trained responder list

Name	Highest training level achieved	Specialist roles
Richard Barnett	Regional On Scene Commander	ROSC
Derek Hartley	Regional On Scene Commander	ROSC
Kelly Hosking	Regional On Scene Commander	ROSC
Andrew BuBear	Regional On Scene Commander	ROSC
Mark Row	Senior Regional Responder	Lead (Equipment)
Phillip Duthie	Senior Regional Responder	Lead (Equipment)
Mike Knight	Senior Regional Responder	Lead Operations
Peter Head	Senior Regional Responder	Harbourmaster/ NRT
Rick Liefting	Senior Regional Responder	Lead Intel/Planning
Vaughan Kestle	Senior Regional Responder	Equip hand
Alistair Parton	Senior Regional Responder	Lead Ops, Intel, Planning
Toby Kemp	Senior Regional Responder	Harbourmaster
Amelia Luxton	National Response Team	Logistics, NRT
Chris Bredenbeck	Senior Regional Responder	Harbourmaster, Drone Ops
Cliff Gibson	Regional Responder	EM/Exercise Controller
Danielle Kruger	Regional Responder	NRT/Logistics
David Stagg	Regional Responder	Lead Operations
Hannah Jones	Advisor	Coastal Science Advisor
Kit Squires	Advisor	Coastal Science Advisor
John Renata	Regional Responder	Equip hand
Mike Barr	Regional Responder	Equip hand
Paul George	Regional Responder	Intel, Planning, Operations lead
Phillip Duthie	Senior Regional Responder	Lead Equipment
Robbie Nikora	Regional Responder	Equip hand
Robert Isaac	Regional Responder	Equip hand

Shaun Millar	Regional Responder	Operations lead
Lee Samphier	Regional Responder	Equip hand
Braiden Gray	Regional Responder	Equip hand
Stephen Wise	Regional Responder	Harbourmaster
Claire Walker	National Response Team	NRT, Logistics lead, Bus. support, PA to Controller
Dave Hancox	Regional Responder	Equip hand
Devon McClunie	Regional Responder	Equip hand
lan Smith	Regional Responder	Equip hand
Tom Hugill	Regional Responder	Equip hand
Rod Edwards	Regional Responder	Harbourmaster
Daniel Wharepapa	Regional Responder	Equip hand

Contact details for regional responder staff can be found in WebEOC

Auckland Council	Harbour Control
	(24hr DO)
Ports of Auckland	
Auckland Council	
Bay of Plenty Regional Council	
Ports of Tauranga (Ops room)	
Taranaki Regional Council	Bruce Pope ROSC
Thames-Coromandel District Council Offices	Thames (Main Office):
Hauraki District Council	
Hamilton City Council	24hr Emergency number fax
Raglan Coast Guard	Raglan Sea Rescue 24hrs
Otorohanga District Council	diverts to afterhours call centre 24/7
Waitomo District Council	
Taupo District Council	

10.5 Other

NZ Fire Service NZ Fire - Dial 111 for 24 hr	coverage
Hamilton area headquarters	
Cooks Beach	
Coromandel	
Hahei	
Kawhia	
Otorohanga	
Pauanui	
Port Waikato	
Raglan	
Tairua	
Тари	
Te Kuiti	
Thames	
Whangamata	
Whitianga	
Maritime NZ	
Rescue Coordination Centre New Zealand (RCCNZ)	
Oil Spill Duty Officer	
Oil Spill Service Centre	
Wildlife response - Massey University	Wildbase response duty officer:
Wildlife Response – DOC Thames	Nick Kelly
Waikato Ornithological Society	Bruce Foster
Meteorological Service	Service Desk 24 hr – first call Lead forecaster – 24 hr – alternative contact
Ministry of Fisheries	0800 00 83 33
NZ Safety Limited	Hamilton
Oil companies	
Mobil New Zealand Ltd	0800 880 361 general enquiries
PO Box 2497	head office – Wellington

WELLINGTON	0800 808 444 24hrs emergency line
BP Oil Ltd	0800 800 027 customer service
PO Box 892	0800 805 111 Emergency line
WELLINGTON	
Caltex	0800 733 835 24hr
Chevron New Zealand Ltd	
PO Box 2297	
Wellington	
Police stations - dial 111 for 24hr coverage	
Hamilton	
Coromandel	
Kawhia	
Pauanui	
Raglan	
Te Kuiti	
Tairua	
Thames	
Waihi	
Whangamata	
Whitianga	
Otorohanga	
SPCA	
Waikato Region	
Test laboratories	
RJ Hill Laboratories	0508 44 555 22
ESR Gracefield	
Leeder Consulting	(Melbourne)

10.6 Emergency Management – useful links and subscriptions

(Updated May 2011)

The following links and subscriptions are a generic list. Local information will also be required including your local authority emergency pages. The focus of this list is sites that will be useful in response, rather than a big list of emergency management related sites for preparedness.

GeoNet	http://www.geonet.org.nz/
Global disaster alert and coordination	http://www.gdacs.org/
Horizon's rivers and rainfall	Horizons river levels and rainfall
Maps - Google maps	http://maps.google.com/maps?hl=en&tab=wl
Media - BBC	http://www.bbc.co.uk/news/
Media - CNN	http://www.cnn.com/
Media – Radio New Zealand	http://www.radionz.co.nz/news/home
Media – TV3	http://www.tv3.co.nz/News/tabid/183/Default.aspx
Media - TVNZ	http://tvnz.co.nz/view/news index skin/news index group
Ministry of CDEM	http://www.mcdem.govt.nz/memwebsite.nsf
MoH pandemic information	http://www.moh.govt.nz/moh.nsf/indexmh/pandemicinfluenz a
Roads - AA Road Watch	http://www.aaroadwatch.co.nz/
Swell Map	http://www.swellmap.com/index.php
Telecom Whitepages	http://yellow.co.nz/whitepages/
Telecom Yellowpages	http://yellow.co.nz/index.jsp
Tides - LINZ tide timetables	http://www.linz.govt.nz/hydro/
Tides - NIWA tide forecaster	http://www.niwascience.co.nz/services/free/tides
Weather – Marine Metocean View	https://metoceanview.com/
Weather - MetService	http://www.metservice.co.nz/default/index.php
Weather - MetVUW	http://www.metvuw.com/forecast/forecast.php?type=rain&re gion=nzni
Weather – Tropical storm tracker	http://www.tropicalstormrisk.com/
Swell Map swell alerts	http://www.swellmap.com/index.php

RSS feeds

National Emergency Management Agency (NEMA)	https://www.civildefence.govt.nz
Geonet (Earthquake, Tsunami and Volcano information.	https://www.geonet.org.nz

11 Communications

Establishing a reliable communications network is a vital part of any oil spill response.

There are several different communications links that may be required for a particular response across the media of ground, air and water. In addition, the communication requirements will change over time as the spill response progresses through its various stages. For example, the communications requirements for aerial verification of a spill will differ from communication requirements for a beach clean-up.

This annex outlines the communications systems used within New Zealand that may be utilised during an oil spill response. The discussion for each system outlines who operates it, the area the system covers, how to access it, and any limitations.

In addition, Maritime NZ has an independent radio communications system that is dedicated to oil spill response. This system is described in more detail below.

A combination of these systems will be used during an oil spill response and will be established as required. An important point to consider in the establishment of the communications system is the security of messages flowing through it. If security of the response is an issue, then this may be overcome by using codes (to be established as and when necessary).

NOTE: Radios, cell phones and pagers and certain cameras must not be taken on board tankers or into a spill situation unless they are intrinsically safe.

11.1 Repeater- based systems

There are several repeater-based systems in place in New Zealand. These include Emergency Service (ES) Band, Fishers Radio Networks, Civil Defence and Local Authorities networks.

11.1.1 ES Band

ES Band is a VHF-FM system that has extensive coverage and is very flexible in terms of how it can be accessed. Normal telephones or cell phones may be used to talk to radios using the ES Band. For example, the Department of Conservation have their own PABX based in Wellington that links into the ES Band repeaters.

The Department of Conservation has agreed to sponsor Maritime NZ as exclusive uses of radio channels ESB127 and ESX8. The Department will also share its national ES Bank network channel for marine oil spill exercises and operations. Where possible, this should be on an on-interference basis and has been arranged in advance to the mutual satisfaction of both parties. This should be accomplished by notification to either the DOC Area Office which administers the Repeater to be accessed, or to the STIS division, DOC HO, Wellington. Access to the DOC Network Repeater stations on ESB116-ESB124 will require Maritime NZ to transmit the CTCSS access code on 151.4Hz.

The Department of Conservation is currently implementing a three-year development plan to establish a national ESB network. The project is 35% completed and will replace an existing E Band VHF-FM network. The completed network will provide field radios, which are fitted with DTMF capacity access to the DOC internal telephone network. Access to the external telephone network, including cellular, would require DOC approval.

11.2 WRC radio telephone network

See <u>DM # 1344243</u>

Waikato Regional Council Radio Telephone Callsigns

Te Aroha				
Te Aroha Office	"Te Aroha"			
lan McLeod	11	Supervisor		
Vacant	12	Supervisor		
Mike Barr	13	Field Operator		
James Chandler	14	Field Operator		
Neville Francis	15	Leading Hand		
Braiden Gray	16	Field Operator		
Matthew Ratcliffe	18	Field Operator		
Peter Avery	19	Leading Hand		
Paeroa				
Paeroa Office	"Paeroa"			
Kenny Growden	30	Hauraki Operations Team Leader		
Adam Munro	20	Hauraki Coromandel Section Manager		
Vacant	21	Supervisor		
Hayden McGregor	22	Deputy Supervisor		
Brendon Manning	23	Projects and Compliance		
Danny Bourke	24	Field Operator		
lan Smith	25	Field Operator		
Roy Cairns	26	Field Operator		
lan Baxter	27	Field Operator		
Rowan Dare	28	Field Operator		
John Renata	29	Leading Hand		
Kerepehi				
Steve Clark	32	Deputy Supervisor		
Dave Hancox	36	Field Operator		
Shaun Millar	37	Field Operator		
lan Smith	38	Field Operator		
Robbie Nikora	39	Leading Hand		
Tuakau				
Tuakau Depot	"Tuakau"			
Peter Cullen	41	Supervisor		
Paul Farrell	49	Leading Hand		

Luke Jones	48	Field Operator
Gary James	44	Digger Operator Aka Aka
Northgate		
Northgate Office	"Northgate"	
Steve Edwards	52	Supervisor
Mike Borratt	53	Field Operator
Vaughan Kestle	54	Leading Hand
Chad Rapson	56	Field operator
Deb Hayler	57	Deputy supervisor
Ray Нора	58	Field operator
Michael Knight	59	Leading hand
Jaime Passache	61	Supervisor
Paul Crafar	65	Field operator
Hiab truck	66	
Таиро		
Taupo Office	"Taupo"	
Todd Baldwin	71	Supervisor
Whitianga		
Whitianga Office	"Whitianga"	
Adam Munro	20	Hauraki Coromandel Section Manager
Julie Beaufill	80	Senior Advisor – Special Projects
Dean Allen	81	Zone Manager Coromandel
Rob Corkill	82	Catchment Management Officer
Benson Lockhart	83	Biosecurity Officer - Pest Plants
Elaine Iddon	84	Land management officer RCS
Mike Theobald	85	River Works Manager Coromandel
James Ferrier-Kerr	86	Supervisor Coromandel
Aniwa Tawa	87	Team Leader Hauraki/Coromandel
Emily O'Donnell	88	Harbour and Catchment Planner
Pamela Tindill	89P	Business Support Officer
(Note: 89 callsign is for infi	requent users)	
Hamilton		
Hamilton	"Hamilton"	Currently switched off due to renovations
Waipa	91	Supervisor
Lyndon Stokes	93	Supervisor
Marine Oil Spill (MOS)	94	ROSC
Marine Oil Spill (MOS)	95	Supervisor

Marine Oil Spill (MOS)	96	Supervisor
Marine Oil Spill (MOS)	97	Vessel
Hamilton - Grey St RUG	98	RUG office base set
Ready Response	99	Duty Officer
GEMO 1	100	CDEM duty vehicle
GEMO 2	101	CDEM duty vehicle

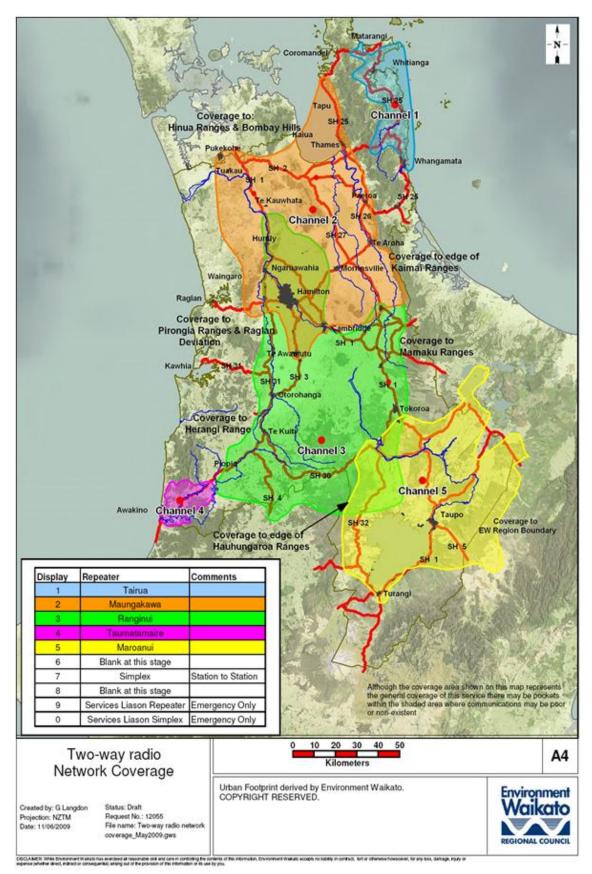


Figure 4: Two-way radio network coverage

Note:

If a repeater is down for any reason, you may be able to access weaker communication though an overlapping channel.

11.3 Fishers radio networks (SSB, VHF), Civil defence systems and local authorities' networks

Base	Callsign	Coastguard Radio	Back up Channel	Nowcasting (continuous weather forecast)	Emergency
Raglan	"Raglan Coastguard Base"	VHF Int. Ch 86	VHF Int. Ch 04 (chat channel)	VHF Int. Ch 22	VHF Int. Ch 16
Whangamata	ZMH54	Ch 04	Ch 6/8	Ch 19	Ch 16
Tairua/Pauanui		Ch 04	Ch 6/8	Ch 19	Ch 16
Whitianga	ZMH48	Ch 03	Ch 6/8	Ch 19/20	Ch 16

Marine Communication Channels for the region are as follows (as sourced May 2021)

Waikato Regional Council telemetry/voice radio network

The VHF Voice Network for RCS Operations staff which is operated via five repeaters based at:

- Tairua (CH 1 Whitianga area)
- Maungakawa (CH 2 northern region),
- Ranginui (CH 3 middle region),
- Taumatamaire (CH 4 West Coast)
- Maroanui (CH 5 southern region).

For current call signs and coverage map see WRC doc ref # 1344243.

Hamilton GEMO may restrict routine users of this network during a civil defence emergency. As Regional ICC staff are deployed on civil defence response tasks, call signs from the comprehensive list above will be allocated and promulgated by the Communications Officer to the network users.

Liaison officers from government and other agencies are expected to provide their own radio communications for their organisations. Telephones can be used as a backup from Waikato Regional Council offices as available.

The Ministry of Civil Defence maintains a HF radio set in the Regional CD Room, which is operated by Waikato Regional Council staff.

It should be noted that the Civil Defence communications system does not cover coastal areas. Use of marine channels is therefore considered to be the best option.

11.4 Ultra-high frequency

Ultra-High Frequency hand-held radios are used for communication onboard ships, as they are able to penetrate steel bulkheads.

11.5 Marine radio communications

VHF-FM and MF/HF –Single-Side Band

The main types of Marine Radio Communications are VHF-FM radio, MF/HF – Single-Side Band (SSB) radio and International Marine Satellite (INMARSAT). There are no limits on the extent of coverage using SSB and Inmarsat systems. Where practicable, the Maritime Operations Centre should be used to communicate with ships using these systems.

Maritime NZ's Maritime Operations Centre is available 24 hours per day to send/receive VHF – FM and MF/HF – SSB messages to/from ships within New Zealand waters. The area of coverage for Maritime NZ WHF is shown in Figure 7, Maritime Radio VHF Coverage. Any gaps in terms of VHF coverage by the Marine Operations Centre may be filled by using MF/HF SSB or Local Fishers networks.

The MF/HF Maritime Radio Service is provided by Taupo Maritime Radio, from a site in the middle of the North Island. The area of coverage by MF/HF increases with the frequency of the signal, e.g. 6000 kHz has wider coverage than 4000 kHz. Also, as a rule, the area of coverage with each frequency band reduces at night due to a reduction in the ionosphere. The Maritime Operations Centre will be able to advise on the coverage provided by this system at the time of the response.

11.6 Civil aviation communications

Methods of Civil Aviation communications include VHF AM, MF/HF Single –Side Band and ES Band.

The VHF AM and MF/HF Single –Side Band systems work much the same way as the marine-based systems. The National Rescue Co-ordination Centre in Lower Hutt is well equipped to communicate with aircraft. The Incident Command Centre may also be able to link into aircraft through local aircraft control towers.

Almost every air force plane and most major rescue helicopters are also equipped with Marine VHF radio.

ES Band can be used if the aeroplane is equipped with a cellular phone.

11.7 Amateur communications networks

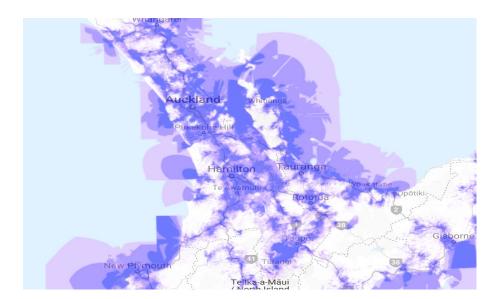
It may be possible to utilise local Amateur Radio Emergency Corp. (AREC) during a spill response. The Waikato ART can be found here - <u>NZART-Branch 81 - Waikato VHF Group (Inc)</u>. These operators may be of assistance during a spill response in remote areas.

The regional oil spill contingency plans may also identify any local HAM operators that may be able to assist.

11.8 Cellular telephone networks

The below maps provide indications of the cell phone coverage in New Zealand for key providers, Spark, and Vodafone. It is important to recognise the limitations of cellular phones when establishing a communications system during a response.

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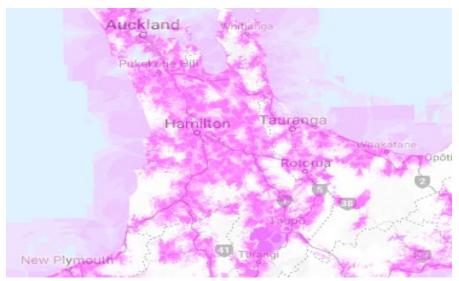


Figure 5: Spark 3G (blue) and 4G (pink) phone coverage (Source: Spark.co.nz)

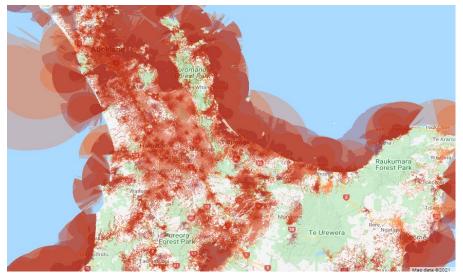


Figure 6: Vodafone cell phone coverage (Source: Vodafone.co.nz)

11.9 Waikato Regional Council dedicated oil spill communication equipment

Waikato Regional Council has four handheld short range VHF radios that are dedicated to Marine Oil Spill response. These are held by the Emergency Management Office. Should the need arise for more communications equipment WRC Maritime Services have several VHF handheld radios that can be requisitioned.

MARITIME NEW ZEALAND Chart MARITIME RADIO VHF COVERAGE Cape Reinga VHF CH:16, 68 Kaitaia Maritime Radio VHF CH: 16, 71 VHF Stations Whangarei Maritime Radio VHF CH: 16,67 HF Site (Taupo Maritime Radio – SSB) 📩 Maritime Operations Centre, Avalon Great Barrier VHF CH: 16, 25, 67, 68, 71 Plenty Maritime Radio VHF CH: 16, 68 Maritime Runaway Maritime Radio Auckland Maritime Radio **Operations Centre** VHF CH: 16, 71 Phone/Fax VHF CH: 16, 71 Taranaki Maritime Radio Phone: (04) 914 8333 Fax: (04) 914 8334 VHE CH: 16, 67 Cape Egmont Maritime Radio VHF CH: 16, 71 Tolaga Wanganui Maritime Radio Maritime Radio VHF CH: 16, 67 VHF CH: 16, 69 D'Urville Maritime Radio lapier Maritime VHF CH: 16, 67 Radio VHF CH: 16, 68 Farewell Maritime Radio VHF CH: 16, 68 Wairarapa Maritime Radio Westport Maritime Radio VHF CH: 16, 67 VHF CH: 16, 71 Wellington Maritime Radio Greymouth Maritime Radio VHF CH: 16, 71 VHF CH: 16, 68 Picton Maritime Radio VHF CH: 16, 68 Fox Maritime Radio VHF CH: 16, 67 Kaikoura Maritime Radio VHF CH: 16, 67 Fiordland Maritime Radio Akaroa Maritime Radio VHF CH: 16, 71 VHF CH: 16, 68 Waitaki Maritime Radio VHF CH: 16, 67 Chalmers Maritime Badio VHF CH: 16, 7 $\langle \mathcal{O} \rangle$ Bluff Maritime Radio Puysegar Maritime Radio VHF CH: 16, 68 VHF CH: 16, 67 Stewart Island VHF CH: 16, 71

11.10 Maritime Radio VHF coverage

Note: This map represents approximate location and coverage of Maritime New Zealand's VHF radio stations. From time to time gaps may exist within the areas shown due to terrain shadows and system maintenance. Terrain shadows can occur close to the shore under cliffs or in bays and fiords. • 24hr/day listening watch is kept by all VHF stations on channel 16. • The coverage shown above is for vessels with a 25W radio working into a correctly installed antenna mounted 4m or more above the waterline.

Figure 7: Maritime radio VHF coverage

12 Sensitive areas and coastal information

See document # 20329055. Waikato Regional Marine Oil Spill Contingency Plan 2015/18 Volume 2 of 2 – Reference document - Sensitive areas and coastal information

13 Prediction of oil movement and behaviour

13.1 Electronic predictive tools

13.1.1 MetOceanView

Provides current and forecasted tides, swells and wind which affect the travel movement of hydrocarbons in the marine environment

13.1.2 ADIOS

The ADIOS package is installed on all of the ROSC and Regional Hazards laptops and computers and is also available on the N.O.A.A website:

http://response.restoration.noaa.gov/sites/default/files/AdiosInstaller.msi

ADIOS will be utilised during an oil spill event to estimate the changes in spilled oil characteristics over time, using real time environmental data such as wind speed and wave height. Also available through the OSDO if required.

13.1.3 Gnome

Gnome is available for use and is a very accurate tool for slick prediction. While the full suite of inputs is still not available through WRC there are still some very good tools available to give some idea of predicted slick movements and the rate of volatile burn-off and/or hydrocarbon persistence. Despite the lack of tidal flow details it is still a very useful tool if you just use the wind direction, strength, and oil persistence to get a reliable picture of possible slick direction, spread and persistence.

13.2 Manual slick movement calculation

The movement of oil can be predicted from knowledge of the tides and current together with the wind speed and direction. Oil will usually move at 100% of surface water speed and approximately 3% of the wind speed. The vector diagram from the National Plan representing this has been inserted at the rear of this Annex.

13.3 Factors that should be considered when making detailed predictions of oil spill movement

These include:

- Currents
- Tides
- Weather (including wind direction and speed)
- Wave height (sea state)
- Sea temperature, salinity
- Spill size / volume (m³)
- Spill thickness (estimated by colour e.g., sheen, rainbow)
- Type of oil spilled (viscosity, pour point, specific gravity, dispersion, evaporation)
- Satellite imagery
- Regional plans
- Tidal currents atlas (hydrological society)
- Local sources (spill responders, fishermen, boaties etc.)
- Aerial surveillance (including remote sensing, drones etc)

13.4 Manual slick projections

Where to obtain information for use in oil spill movement predictions:

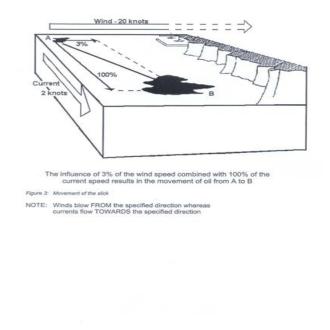


Figure 8: Wind influence diagram

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13.5 Tidal flows and coastal currents

The tidal information must be kept up to date. Tide tables are available from the local newspaper or from the latest version of the Tidal Almanac (written by the Hydrographer's Office). **Refer to the New Zealand Nautical Almanac**

lational Marine Oil Spill Contingency Plan

Another source of tide information is the NIWA site, <u>http://www.niwa.co.nz/services/tides</u>

Tidal Flow

On the charts the directions of the tidal streams are shown by arrows which are graded in 4 different lengths to indicate the approximate strength of the tidal stream as follows:



less 0.25 knot 0.25 to 0.75 knot 0.75 to 1.5 knot over 1.5 knot

Information is given in graphical and tabular form, showing height of high and low tides and associated times. Just select the area and start date you are interested in and the service will give you a table with tide data and a graph.

For addition information on tidal flows, the local harbourmaster should be contacted. (See heading: Navigation Safety)

Bathymetric charts

Bathymetric charts of the regions coast can be located on Waikato Regional Council's computer system Geomedia under GIS – Images

Water temperature

For information on water temperature in the region of the oil spill, the local harbourmaster should be contacted (See heading: Navigation Safety).

Seasonal water temperature information can be accessed at: <u>http://www.metocean.co.nz/forecast</u> Log on details are classified. Refer to WRC Doc # 1213523

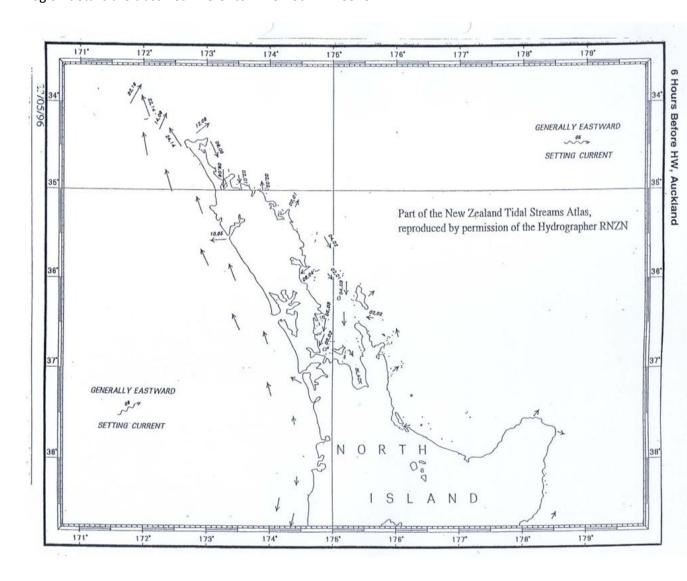


Figure 9: 6 Hours before HW, Auckland

Doc # 18181776

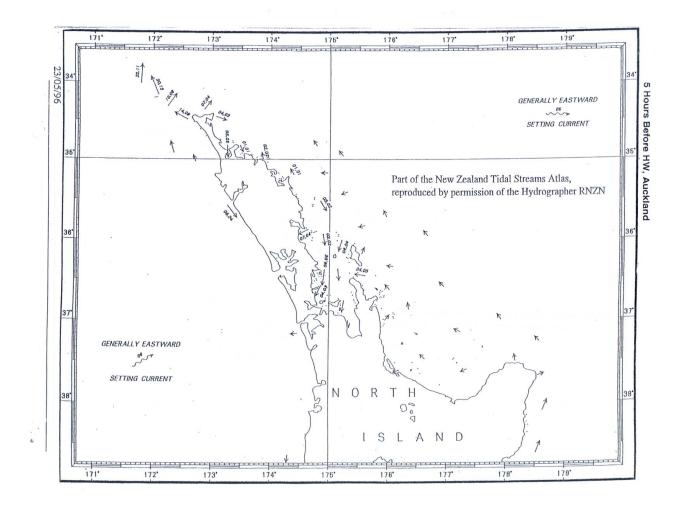


Figure 10: 5 Hours before HW, Auckland

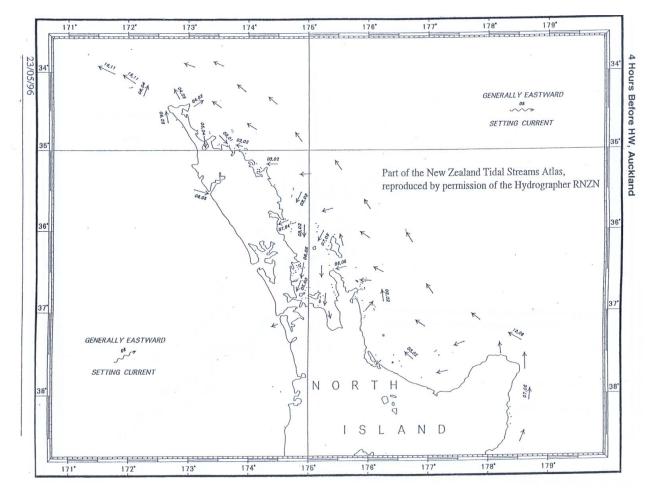


Figure 11: 4 Hours before HW, Auckland

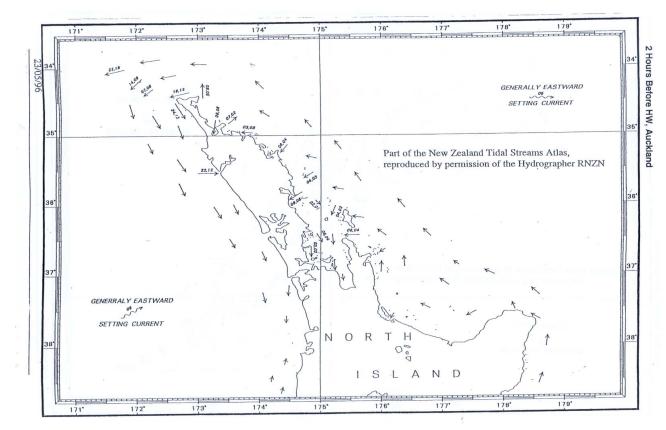


Figure 12: 2 Hours before HW, Auckland

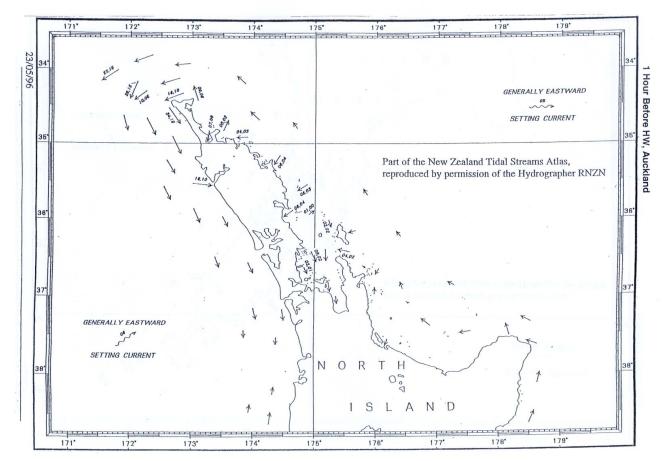


Figure 13: 1 Hour before HW, Auckland

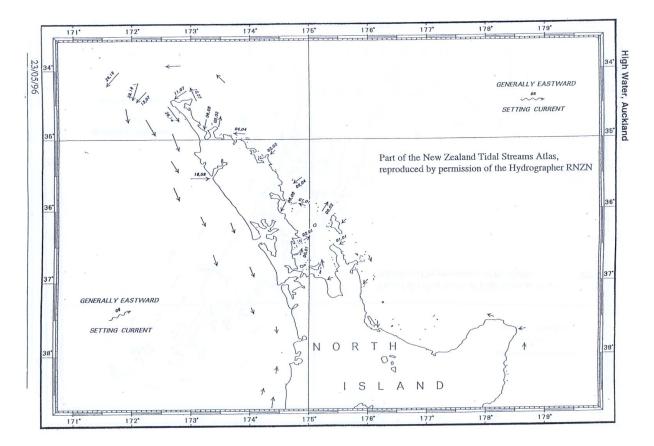


Figure 14: HW, Auckland

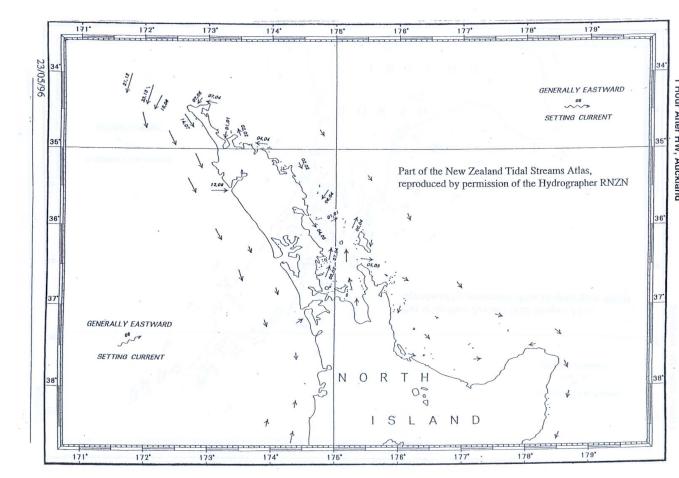


Figure 15: 1 Hour after HW, Auckland

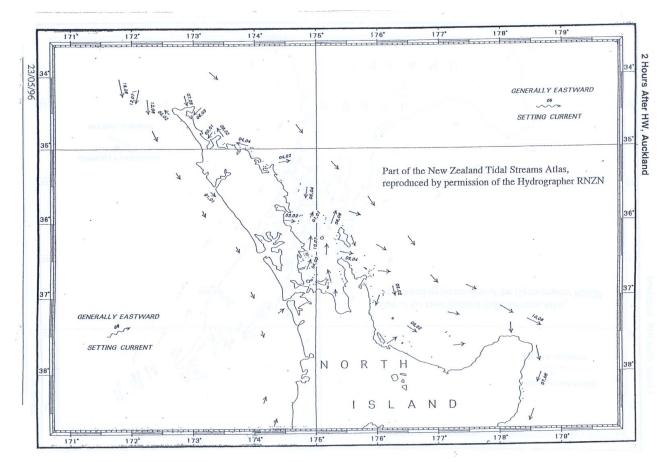


Figure 16: 2 Hours after HW, Auckland

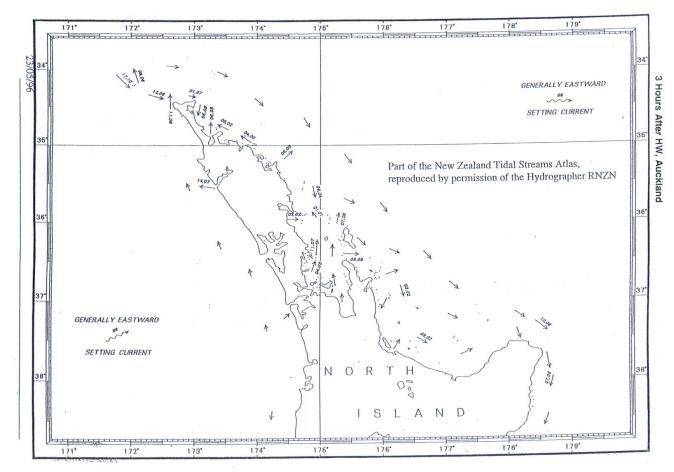


Figure 17 3 Hours after HW, Auckland

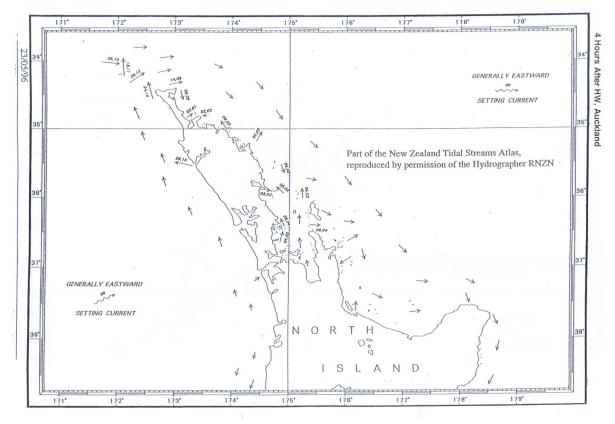


Figure 18: 4 Hours after HW, Auckland

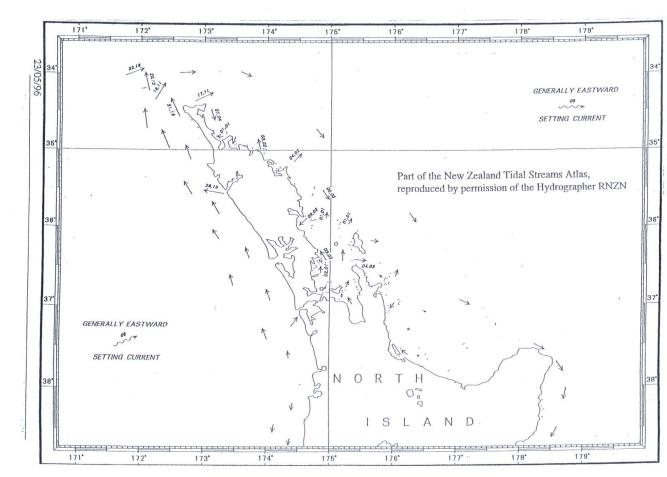


Figure 19: 5 Hours after HW, Auckland

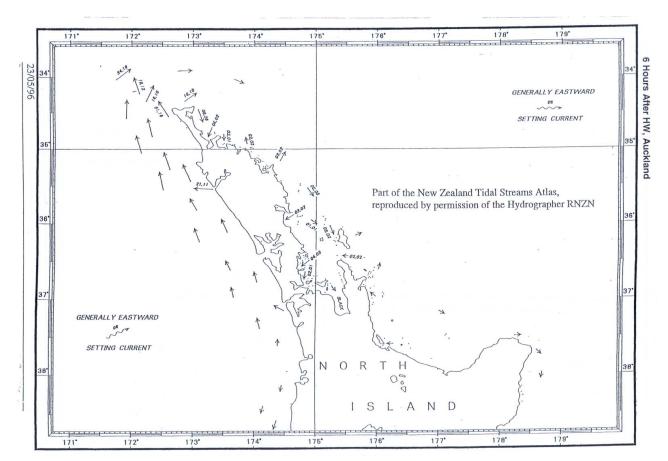


Figure 20: 6 Hours after HW, Auckland

13.5.1 Conversion factors

Volume

1 barrel (us)	= 42 gallons (us)	= 159 litres
1 barrel (imp)	= 42.1 gallons (imp)	= 205 litres
1 gallon	= 1.2 gallons (us)	= 4.546 litres
1 cubic metre	= 1000 litres	= 6.29 barrels
1 litre	= 0.22 gallons (imp)	= 0.03531 cubic feet
1 cubic yard	= 0.765 cubic metres	
1 cubic foot	= 0.0283 cubic metres	
1 cubic decimetre	= 0.001 cubic metres	= 1 litre
1 tonne (metric)	= approx 7.5 barrels (us)	= 262 gallons (imp)
Area		
1 Acre	= 0.405 Hectares	= 4050 Square Metres
1 Hectare	= 10 000 Square Metres	= 2.471 Acres
1 Square Kilometre	= 100 Hectares	= 247 Acres
1 Square Metre	= 1.196 Square Yards	
1 Square Yard	= 0.836 Square Metres	= 9 Square Feet
1 Square Foot	= 0.093 Square Metres	
1 Square Mile	= 2.59 Square Kilometres	= 640 Acres
Length/distance		
1 Kilometre	= 0.54 Nautical Miles	= 0.622 Miles
1 Nautical Mile	= 1.852 Kilometres	= 1.151 Miles
1 Mile	= 1.609 Kilometres	= 1760 Yards
1 Metre	= 1.094 Yards	= 3.282 Feet
1 Yard	= 0.914 Metres	
1 Foot	= 03.05 Metres	
1 Inch	= 25.4 Millimetres	
Speed		
1 Knot	= 1.852 Km/hour	= 0.51 Metres/Second
1 Metre/Second	= 3.6 km/hour	= 1.94 Knots
Mass		
1 Tonne (Metric)	= 1000 Kilogram's	= 0.984 Tons
1 Ton (Imp)	= 20 Hundredweight	= 1016.05 Tonnes
1 Hundredweight	= 50.8 Kilogram's	= 112 lbs
1 Kilogramme	= 2.205 lbs (=1 Litre of water)	
1 Gramm	= 0.035 Ounces	
Flow (Note: gallons are imperia	I)	
1 Cubic Metre/ Hour	= 16.7 Litres/ Minute	= 3.671 Gallons/ Minute
1 Litre/ Second	= 2.119 Cubic Feet/ Minute	= 13.21 Gallons/ Minute
1 Cubic Foot/ Minute	= 0.1039 Gallons/ Second	= 0.472 Litres/ Second

1 Gallon/ Minut	te		= 0.0	631 Litre	es/ Secor	nd					
1 Barrel/ Hour			= 2.6	5 Litres/	' Minute			= 0.5825 G	allons/ N	linute	
1 Gallon (US)/ A	Acre		= 11	.224 Litre	es/ Hecta	ire					
Pressure											
1 PSI			= 0.0	69 Bar				= 6901 pas	cal		
1 Bar			= 10	0 000 Pa	scal			= 14.49 PS			
1 Bar			= 30	Feet of v	water						
Engine power											
1 Horsepower			= 0.7	457 Kilo	watts						
Temperature											
ºF to ºC deduct ∃	ºF to ºC deduct 32, multiply by 5, and divide by 9. ºC to ºF, multiply to 9, divide by 5, add 32.										
Celcius	0	10	20	30	40	50	60	70	80	90	100

104

122

140

158

176

194

212

14 Declaration of intent (DOI) Regional cooperation regarding marine oil spill response

86

Background:

Fahrenheit

32

50

68

- 1. In order for the Waikato Regional Council (WRC) to respond effectively to marine oil spills in its region, WRC has designated ROSC's.
- 2. All regional (Tier 2) marine oil spills must be overseen by a Maritime New Zealand (MNZ) trained ROSC or costs will not be reimbursed by MNZ. MNZ controls ROSC training and revalidation nationwide.
- 3. Other regions also have the same arrangement and are bound by the same response parameters. ROSC numbers however can vary from region to region and there is no set number of ROSC's a region must/or is desirable to have.
- 4. As this is not a business as usual position or a position where formal standby is practiced, there may be times when a Waikato ROSC is not available for response. Other regions also work within this same framework. It is therefore the intention of WRC to work with the other neighbouring regional councils and Auckland Council (collectively known as the **Councils** in this letter) to ensure emergency ROSC cover is available to one another.

Intention:

- 5. WRC and neighbouring Councils will work together with the intent to mitigate the risk for their regions by providing emergency ROSC cover to neighbouring Councils.
- 6. It is the intent of this DOI that cover is provided under extreme (and infrequent) circumstances and is a short term solution until such a time as a region's ROSC becomes available. This cross regional agreement may also be required if a spill trajectory, or spill source is close to another region's boundary.
- 7. It is the intent of this DOI that designated alternative ROSC's acting in good faith can intentionally or unintentionally cross regional boundaries whilst engaged in a spill response,

or respond to a spill in a ROSC's absence within the parameters set out in the regions Marine Oil Spill Contingency Plan (MOSCP).

- 8. As any regional oil spill must be responded to by procedures set out in the region specific MOSCP, each region agrees to distribute their respective regional Plan to the ROSC's. Each party will bear their own costs in relation to this DOI and will cooperate with one another to ensure the MNZ reimbursement process is adhered to.
- 9. This DOI will supersede any earlier agreements that are in place between the Councils.

This document outlines the intent of the Bay of Plenty, Auckland, Taranaki, and Waikato Regional Councils to assist and also allow ROSC's from neighbouring regions to enter another regions territorial waters to carry out an oil spill response. All of these regions agree to be alternative ROSC's should the regions ROSC's not be available.

A copy of the DOI can be found here at - Refer doc # (DOI) doc # 3429594

15 Plan administration

15.1 Introduction

This Plan consists of two parts:

An Operations Section (Waikato Regional Marine Oil Spill Contingency Plan 2021 - 2024)

There is now a condensed operations section in the front of this section that is designed to be a quick reference and easy to use in initial setup.

Volume 1 has now been condensed to make it easier to access important information.

A Set of Regional Annexes are in the Waikato Regional Marine Oil Spill Contingency Plan

The Operations Section guides the overall response.

15.2 Plan relationships

This plan must not be in conflict with the National Oil Spill Strategy or the National Marine Oil Spill Contingency Plan.

All shipboard marine oil spill plans and site marine oil spill plans must not conflict with any criteria stipulated in this plan.

The Regional Annexes contain regionally specific information that will assist each stage of the response.

15.3 Purpose of the plan

The Plan describes the regional marine oil spill response organisation and procedures, and information on spill response resources and clean-up techniques. This plan is intended to provide guidance on the administrative and operational procedures involved in the preparation, mobilisation, operation, and termination of a regional marine oil spill response. Any Tier three responses required in the Waikato region would rely on the Plan to provide specific regional information unique to the area.

15.4 Objectives

The objective of the Waikato Regional Tier 2 Plan is to safely mitigate the effects of an oil spill within the Waikato region and, if practicable, to assist with the restoration of an oil damaged environment. **The safety of human life takes precedence over every aspect of the response operation.**

This Plan aims to develop a response system that will allow staff to:

- a) Evaluate any report of an oil spill within 2 hours of the report being received.
- b) Alert concerned and interested parties of an oil spill which affects them within 2 hours of the report being verified.
- c) Mobilise appropriate personnel and equipment in support of a Tier 2 response operation anywhere within the Waikato region within 2 hours of the spill being verified.
- d) Commence clean-up operations which may mitigate the effects of the spilled oil and contribute to the restoration of the environment, as soon as possible after the spill is reported.
- e) Complete clean-up operations as efficiently as available resources will allow.
- f) Collect evidence to identify spiller and if necessary, commence prosecution and/or cost recovery procedures.

15.5 Plan background

The Maritime Transport Act 1994 introduced new arrangements for dealing with marine oil spills in New Zealand. Oil spills are dealt with at progressive levels (or tiers) depending on the severity of the spill. Waikato Regional Council has statutory responsibility to conduct a Tier 2 response to marine oil spills that occur within its New Zealand Marine and Internal waters. A map of Waikato Regional Council's New Zealand Marine and Internal waters is shown in Figure 2.

Ships and other sites where oil is transferred to or from ships/sites are required to develop Tier 1 contingency plans and carry out any initial response to an oil spill. Maritime New Zealand is responsible for conducting a Tier 3 or national response to spills which occur outside the New Zealand Marine and Internal waters, or which occur inside the New Zealand Marine and Internal waters and are too large for Waikato Regional Council to handle.

This plan establishes a strategy and operational guidelines that will enable Waikato Regional Council and other organisations listed in the plan to respond to an oil spill in the New Zealand Marine and Internal waters. The strategy provides an overview of how a response would be carried out, while the operational guidelines specify the roles and responsibilities of those involved.

Why is oil a problem?

- Oil is a natural product that is ubiquitous in the marine environment.
- The majority of spills are "light" or "non-persistent" oils.
- These oils are highly soluble but also evaporate rapidly.
- These types of oils are the most harmful to aquatic life.
- They contain substances that are highly toxic and carcinogenic.
- Marine organisms, including commercial fish stock, will readily take hydrocarbons into their tissue.
- The cumulative effect is what we are concerned about.

Waikato Regional Council has a legislative requirement to respond to marine oil spills within our area of jurisdiction that is within 12 nautical miles from the appropriate coasts. This plan deals with the coastal waters of the Waikato region, detailing response procedures, equipment availability, supporting organisations, resources, command structure, communications, taking of samples, logistics and administration.

The nucleus of the response operation will consist of the ROSC, Regional Responders and a Support Unit if required. A 'standard' response team is outlined in Annex 2; however, the ROSC should not hesitate to seek further advice or assistance if it would enhance the successful outcome of the response operation.

The final composition of the Response Team will depend on the exact circumstances of the spill. The ROSC will decide on which sections of the team to call upon during the response operation.

The ships that use the coastline of the Waikato Region, on the routes in Figure 1 pose an oil spill threat of low probability of occurrence but high potential impact on the environment. The majority of vessel activity in New Zealand is concentrated on the East Coast due to the locality of the major ports. Tanker movement around the northwest coast of the North Island has been estimated at about 120 movements in either direction per year (Woodward-Clyde (New Zealand) Ltd, 1998).

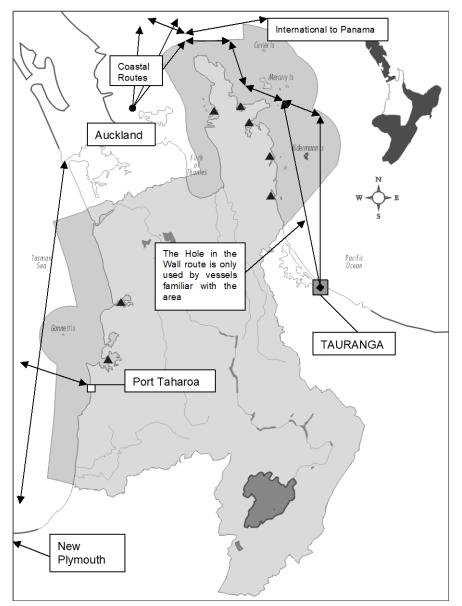


Figure 21: Coastal shipping routes

There are various methods for identifying vessels that may be responsible for an illegal oil discharge. Ships logs or onboard electronic devices such as GPS should provide details of navigation routes. Port authorities also track arrivals and departures of vessels and marine radio transmissions can provide important information as to a vessel's movement. Vessels can also be tracked using AIS (Automatic Identification System) through the http://www.marinetraffic.com/ais/ website. MNZ also has access to a Google earth based system which shows the location of AIS enabled vessels.

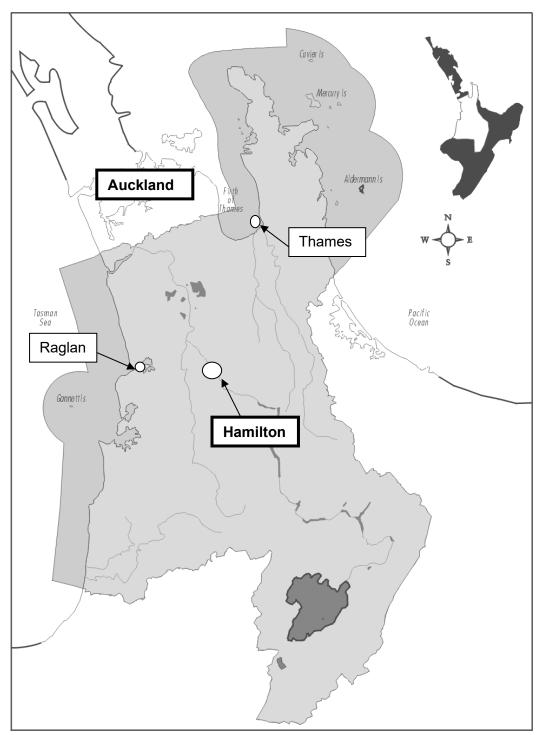


Figure 22: Waikato coastal marine area (New Zealand marine and internal waters)

Useful supporting documents:

MNZ's Oil Spill Management Resource Manual (OSM Resource Manual) Tier 1 Contingency Plans National Marine Oil Spill Contingency Plan Regional Coastal Plans DOC's Coastal Resources Inventory Canadian Coast Guard Oil Spill Response Field Guide Oil Spill Response Limited (Southhampton) Handbook NZ Nautical Almanac IMO Manuals on Oil Pollution IMO/UNEP Guidelines on Oil Spill Dispersant Application IOPC Fund Convection Claims Manuals (1998) ITOPF "Response to Marine Oil Spills" (1993) REM Ltd 1999 "Oil Waste Material – Landfill Disposal Options in New Zealand" AMSA/MNZ "Waste Reception Facilities in Australia and New Zealand Ports" Oil Spill Dispersants – guidelines for use in New Zealand

15.6 Exercising the plan and plan review

The Regional Marine Oil Spill Contingency Plan must be reviewed after the following circumstances arise:

- After 3 years has elapsed, unless a review is called earlier due to:
 - the Plan being used in a response to a regionally significant spill;
 - the ROSC determining that a review is necessary.

This Regional Marine Oil Spill Contingency Plan is a controlled document. All reviews and significant amendments to this plan must be approved by the ROSC. Any updates and new material for inclusion in the plan will be forwarded to plan holders, in hard copy or electronically who must insert the updates and file the update summary in the Administration Section at the rear of the Plan.

15.7 Training, testing, maintenance and amendment of the Regional marine oil spill contingency plans

Training and periodic testing

- a) All regional Council personnel responsible for implementing the plan and dealing with oil spills shall receive training appropriate to their responsibilities under this plan
- b) The plan shall be regularly tested in accordance with an exercise programme set by MPRS and approved by the Director for each year and which includes at least
 - i) One exercise based on equipment deployment.
 - ii) One exercise based on a desktop scenario.

Both exercises must comply with KPI's set by MPRS and evaluated by a MNZ representative.

- c) Accurate details of training provided, and of each exercise and its results shall be kept and any amendments that would increase the effectiveness of the plan will be
 - i) submitted to the Director as soon as practicable for approval under section 293(2) of the MTA; and
 - ii) added to the plan and provided to all persons who hold a copy of the plan once approval has been given by the Director.

Update of Information

a) This plan shall be checked not less than once every 12 months to verify the currency and completeness of the information contained in it.

- b) At the time of every check any information in the plan which is not current and any new information relevant to the plan shall be incorporated in the plan after approval has been received from the Director.
- c) The Director and every person holding a copy of the plan shall be notified of any changes made to the plan as a result of a check.

Post Use Review

- a) The effectiveness of the plan shall be evaluated and recorded after its use in response to an oil spill
- b) The Director shall be invited to participate in any post use review of the plan.

Any proposed amendments to increase the effectiveness of the plan shall be submitted by Council as soon as practicable for approval under section 293(2) of the MTA.

15.8 Document control and plan maintenance

A record page for Amendments has been included at the end of the document.

This plan will be electronically amended as and when pertinent information changes or better information comes to hand. It will be formally reviewed at least once every three years under the direction of the ROSC (and after events and exercises) and directed to Council for adoption each time.

Note: Any recommendations for amendments should be forwarded to the Senior Emergency management officer (SEMO), Waikato Regional Council. In addition, all organisations named in this plan are asked to notify the SEMO when their nominated personnel or their contact details change.

15.9 Consultation

As part of the review process it is a legislative requirement under section 291 of the Maritime Transport Act 1994 to consult with Department of Conservation and representatives of the tangata whenua of the region, and any other affected parties we see necessary. Confirmation of this consultation required.

15.10 Document control: copy distribution list

Controlled hard copies of the "Waikato Regional Marine Oil Spill Contingency Plan" are held by:

Hard copy number	Contact	Organisation	Designation
01	Derek Hartley	Waikato Regional Council	Regional On-Scene Commander
02	Senior Emergency Management Office	Waikato Regional Council	Administrator
03	Spare	Waikato Regional Council	Regional Resilience

Any amendments to the plan should be forwarded to each copy holder to ensure consistency and robustness.

Electronic PDF copies of the "Waikato Regional Marine Oil Spill Contingency Plan" should be sent to the below people/groups following a full plan review or any amendments.

Electronic copy number	Contact	Organisation	Designation
01	Derek Hartley	Waikato Regional Council	Regional On Scene Commander
02	Dayne Maxwell	MNZ Te Atatu	Response Planning Officer
03	Bruce Pope	Taranaki Regional Council	Alternate Regional On-Scene Commander
04	Andrew Hayton	Auckland Council	Auckland harbour master. Distribute to ROSC's
			Alternate Regional On-Scene Commanders
05	Adrian Heays	BoP Regional Council	Alternate Regional On-Scene Commander
06	Kelly Stokes	WRC	Section Manager
07	Greg Ryan	WRC	ICM Director
08	Adam Munro	WRC	ROSC (not on duty roster but approved by council and current)
09	Kit Squires	WRC	Wildlife rep
10	Rick Liefting	WRC	Team Leader Regional Resilience

15.11 Regional oil spill contingency plan update form

All new/rep	All new/replacement pages are marked – Issue [] [15 June 2021]						
Section	Remove page no's	Replace with page no's	Reason for update				
All	Nil	Nil	Plan Review, verification of key contacts				
All	Nil	Nil					

Issue Number:

СОРҮ	
NUMBER:	

Issued on (date)

Issued to:

In his/her capacity as:

I hereby acknowledge receipt of Update # [] to the Regional Marine Oil Spill Contingency Plan and confirm that I have updated my copy of the Plan accordingly.

Signature:

Date:

Organisation:

Postal Address:

Telephone:

Please sign both copies of this acknowledgement form, retain one copy in the Plan Administration section at the rear of your Regional Plan and return the other to:

Emergency Management Office

- File Number: Waikato Regional Marine Oil Spill Contingency Plan
- **31 50 05** Waikato Regional Council Private bag 3038, Waikato Mail Centre, Hamilton 3240

Appendix 1 - Health and Safety

The Waikato Regional Council Standard Operating Procedures for Marine Oil Spill and Exercises

	Waikato Regional Council	Discover No.	9591112
HEALTH AND SAFETY SAFELY HOME. EVERYBODY. EVERY DAY.	Standard Operating Procedures	Issue Date:	1 March 2017
		Version #	1
		Directorate:	ICM

	,		mandatory requi pecial task requi	
			PPE/PPC	
Purpose	To set out the operational requirements during marine oil spill deployment and exercises.		Safety Lock/Tag	
Scope	This policy applies to all oil spill response deployments and exercises led by Waikato Regional Council.	Θ	Eye Protection	\checkmark
Accountability	Senior Emergency Management Officer		Safety Boots	√
Safety	In the event of an emergency contact the Regional On-Scene Commander (ROSC), Emergency Services (phone 111) or Waikato Regional Council reception 0800 800 401 to seek assistance.		Safety Gloves	\checkmark
Environment	Containment and recovery of oil in the marine and coastal environment. Near vicinity of stricken vessel.	\bigcirc	Ear Protection	\checkmark
Prerequisites	Trained in Marine oil spill response or under direct supervision of senior regional responder or ROSC.	E	Respirator/ Face Mask	\checkmark
Inputs	NZTA Code of Practice for Temporary Traffic Management (COPTTM).		Hi Viz Clothing	\checkmark
Related SOPs/Forms	Trainer selection document as per HSMS 4.3.4 Water Working Standard #4070928		Protective Clothing	\checkmark
Risk Register References	264 Working in Isolation; 268 Water Working; 273 Hazardous Substances; 275 Driving; 278 Work in Extreme Weather; 285 Visiting Hazardous Sites; 286 Boat Use; 288 Work in Tidal Zones; 266 Sun Exposure; Insect bites/stings; Aggressive Animals.		PFD/Life Jacket	\checkmark
		SUNSMART	Sun Protection	\checkmark

	Waikato Regional Council	Discover No.	9591112
BEALTH AND SAFETY SAFELY HOME. EVERYBODY. EVERY DAY.	Standard Operating Procedures	Issue Date:	1 March 2017
		Version #	1
	MARINE OIL SPILL (MOS) DEPLOYMENT AND EXERCISES PROCEDURE	Directorate:	ICM

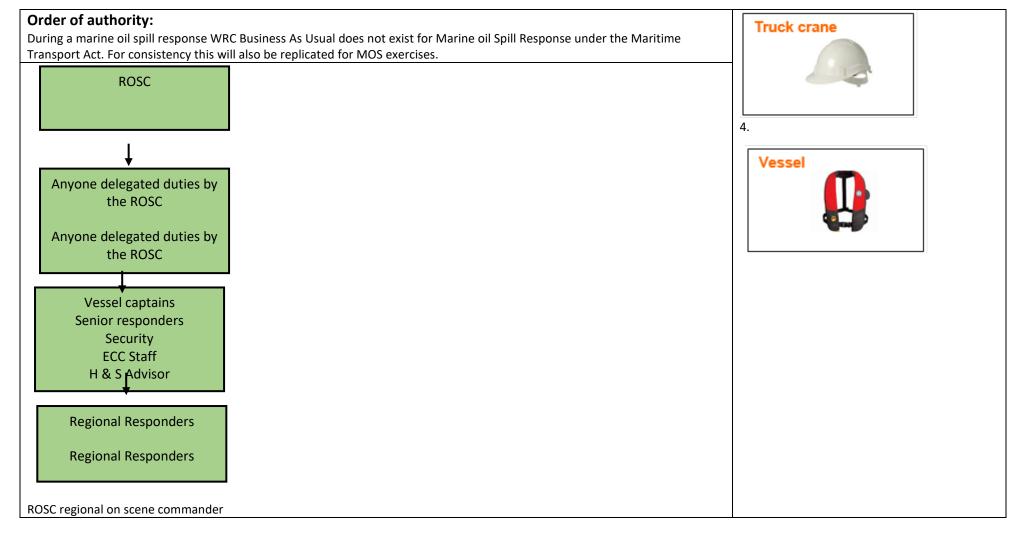
PROCEDURE		PICTURES
ield Work		
Remote worker equipm	nent (e.g. InReach device)	
First aid kit		PHONE
Sun screen		
Insect repellent		
Procedure Name	Operational Procedure for Marine Oil Spill Deployment Exercises	Р
/ersion	Version 1 – Draft as of 17 November 2016	All persons inside worksite/demarcation area
Review Date		must wear:
Purpose	Operational procedure for Marine Oil Spill Deployment and Exercises	
egislation	Is this work notifiable to Ministry of Business, Innovation and Employment?	All
	Yes/No	
	http://www.business.govt.nz/healthandsafetygroup/notifications-forms/particular-	
	hazardous-work	
	Code of Practice for Temporary Traffic Management	
	Working at Height	
Related documents	Water Working Standard (Doc#4070928)	F
	http://www.nzta.govt.nz/assets/RESOURCES/CODE-TEMP-TRAFFIC-	Z
	MANAGEMENT/INDEX.HTML	
veryone entering any work	site MUST be operationally and safety briefed.	
	ering a controlled and cordoned off worksite must be identified by wrist band after completion of	
-	ntering site (image z). This procedure ensures the identification of briefed staff by anyone on site.	

		Waikato Regional Council	Discover No.	9591112
	HEALTH AND SAFETY	Standard Operating Procedures Iss	Issue Date:	1 March 2017
(3)			Version #	1
SALEET HOME. EVERTBODI.		MARINE OIL SPILL (MOS) DEPLOYMENT AND EXERCISES PROCEDURE	Directorate:	ІСМ

Event and personnel identification: identification vest allocation

PROCEDURE		PICTURES
Site Location		1.
Event		Oil
Date		
Security		
ROSC		
PIM		
Welfare		
Wildlife Rep		 2
Maritime New Zealand Rep		Machinery
Evaluator		
Exercise Control		
Health and Safety Rep on site		
First Aiders		
WRC Contact details		
Minimum PPE for work site	High vis vest, steel cap shoes or boots Images 1, 2, 3, and 4 indicate specialist PPE for tasks identified.	
	Note: does not apply to observers in cordoned off area.	 3

Waikato Regional Council		Discover No.	9591112
	Standard Operating Procedures	Issue Date: 1 March 2017	1 March 2017
HEALTH AND SAFETY SAFELY HOME, EVERYBODY, EVERY DAY.		Version #	1
SALET HOME. ELEKTROOM. ELEKTROAL	MARINE OIL SPILL (MOS) DEPLOYMENT AND EXERCISES PROCEDURE	Directorate:	ICM



	Waikato Regional Council	Discover No.	9591112
	Standard Operating Procedures	Issue Date: 1 March 2017	
HEALTH AND SAFETY SAFELY HOME, EVERYBODY, EVERY DAY,		Version #	1
	MARINE OIL SPILL (MOS) DEPLOYMENT AND EXERCISES PROCEDURE		ICM

Health and Safety Rep checklist below: Actions Required

Checklist below MUST be checked and signed off by the ROSC appointed Incident Health and Safety Rep (note: there MUST be an appointed trained Health and Safety staff member for any MOS incident or exercise)

Task	Completed
Induction, including planned emergency procedures	
Site specific hazards identified (job safety analysis) Doc#6255477	
Checking weather and/or environmental hazards where applicable and responding appropriately	
Check WRC OSH security register in advance (where relevant)	
Ensure PPE and safety briefing compliance	
Ensure sufficient provisions are carried such as drinking water, sunscreen, hand sanitiser, first aid kit, etc.	
Health and Safety briefing	



General hazard information: Hazard reminder

Hazard	Consequence	Control	PICTURES
Traffic	Being struck by vehicle	 Wear hi viz at all times on site Stay out of truck loading area unless specifically loading or unloading truck CoPTTM traffic management plan 	A
Weather/environment	Sunburn, sunstroke, dehydration, hypothermia	 Wear appropriate clothing for conditions Sunblock, hat, sunglasses where appropriate Drink plenty of fluids 	C=bon
Waterways	Drowning	 Keep a safe distance from edges Follow WRC water working standard Wear PFD's if working at the water's edge Always wear PFD's on vessels Follow instruction from vessel's crew at all times Exercise caution around jetties 	Ture
Insect stings	Allergic reaction, anaphylactic shock, infection	 Tell Health and Safety Rep if you are allergic to anything prior to commencement Personal responsibility to carry any prescribed medication 	det -
Aggressive animals/stock/dog Nesting birds/ jelly fish. Portuguese man of war A , Lions Mane B and Mauve Stinger C	Charging, stomping, kicking, biting, Stings from jelly fish	 Follow instructions of landowner or ROSC/supervisor when entering site Avoid paddocks where stock are kept If approached, keep calm and retreat 	
Mechanical tools & equipment	Possible serious harm injuries from mechanical hazards such as cutting/severing, crushing, entanglement, impact, abrasion, shock, vibration, noise etc.	 Keep safe distance from any machinery unless specifically instructed to operate equipment Responders must be trained in the safe operation of any equipment responders are working with Do not wear loose clothing around machinery Wear leather gloves around machinery or while lifting or shifting equipment Wear eye protection while operating equipment Follow instructions of site supervisor/trip leader 	

	Waikato Regional Council		Discover No.	9591112
		N 1	Issue Date:	1 March 2017
	HEALTH AND SAFETY SAFELY HOME, EVERYBODY, EVERY DAY,		Version #	1
	SALEET HOME. EVERIDODI. EVERTDAL.	MARINE OIL SPILL (MOS) DEPLOYMENT AND EXERCISES PROCEDURE		ICM
			·	·

		Wear ear defenders/ear plugs where risk of noise	В
		induced hearing loss	
Vegetation	Eye stab, scratches, infection	 Wear long sleeved/legged clothing where appropriate 	
		Wear enclosed footwear	
Slips, trips, falls	Sprains, strains, falling from	 Keep away from edges which may be unstable – follow 	
	height, fractures, concussion	instructions on safe places to stand	Record MUSE
		 Wear sturdy footwear when on site/s 	
Waterborne diseases	Ingestion of bacteria, virus,	Follow guidance in WRC policy	
	algae, parasites, poisons,	• Always treat waterbodies as if contaminated Wash hands	
	toxins	before eating, etc.	AN ALLENT S
Public	Aggressive persons /	Follow guidance in WRC policy	
	helpful/curious people	• Do not engage with aggressive persons – refer them to	
		WRC corporate	
		• Do not wear corporate clothing where risk of aggressive	
		persons may be present	
Electrocution	Severe injury/death	Watch for overhead power lines and stay well away	С
		(4m+), especially unloading/loading truck and operating	and the second second of the
		machinery.	A CALL AND A CALL
		Be cautious if excavating.	
		Do not work under power lines in high winds	
Confined spaces &	Suffocation, inhalation of	• Do not enter or board any vessel without direct ROSC	
Stricken vessel entry	toxic fumes, trapped in	permission. Do not enter any space that could be	
	sinking vessel	classified as a confined space.	A CONTRACTOR
Fire	Burns	Watch for fumes or any other potentially flammable	
		situations. If fumes are suspected stay aware until	PHA AND AND
		clearance is given using proper gas detection equipment.	and a second s
		Any fumes must be identified and concentration	
		established.	

HEALTH AND SAFETY SAFELY HOME. EVERYBODY. EVERY DAY.			Waikato Regional Council	Discover No.	9591112
			Standard Operating Procedures	Issue Date:	te: 1 March 2017
				Version #	1
		MARINE OIL S	PILL (MOS) DEPLOYMENT AND EXERCISES PROCEDURE	Directorate:	ICM
Ship's cargo/ wreckage/ and sinking vesselsPoisoning by direct contact or inhalation, crushing injuries			 Always exercise caution and obtain cargo inventory if possible. Never enter or board any vessel that is showing any signs 		

of taking on water, or listing.

	Waikato Regional Council		9591112
	Standard Operating Procedures	Issue Date: 1 March 2017 Version # 1	
HEALTH AND SAFETY SAFELY HOME, EVERYBODY, EVERY DAY,		Version #	1
	MARINE OIL SPILL (MOS) DEPLOYMENT AND EXERCISES PROCEDURE	Directorate:	ICM

General hazard checklist and remedial action

Hazard	Yes	No	Action taken (none if applicable)
Traffic			
Weather/environment			
Waterways			
Insect stings			
Power lines			
Aggressive animals/stock/dogs			
Mechanical tools & equipment			
Vegetation			
Slips, trips, falls			
Waterborne diseases			
Ship cargo			
Public			
Confined spaces			
Fire			
Underground and overhead power services			
Site specific hazards			

Expected Health and Safety Standard for MOS Site

Required Training / Competency / Criteria, for all staff entering MOS work site

- Maritime New Zealand (MNZ) trained responder validated.
- Any untrained individuals must be directly under the control of a Regional Responder, Senior Regional Responder or ROSC
- Any staff/visitor inducted and authorised/delegated by ROSC.
- Previously MNZ trained and seeking revalidation.
- Undertaking MOS training under direct supervision of trained responder staff
- Staff directly involved in gear maintenance for quarterly checks must be competent in the operation of the machinery.

Pre-start/initial checks

- All staff must be inducted to each site, attend safety briefing and be identified.
- Truck and equipment unloading safety briefing.
- Check crane sling has been tested tagged with certification.

Worksite general

- Minimum PPE MUST be worn at all times.
- IT IS IDEAL to have no vehicle movement through the worksite.
- IT IS IDEAL to arrange with the duty GDO to notify the ROSC if any tsunami or quake reports are generated while in the field.
- Some form of outside communication MUST be established before commencing work for emergency situations.
- Where required, overalls MUST be cotton or disposable and NOT synthetic.
- Any unsafe work practice MUST be reported to the ROSC.
- Worksite MUST be cordoned off with warning tape.
- Proper worksite signage MUST be displayed in an obvious place.
- The following support staff MUST be on site:
 - o Trained health and safety
 - STMS (traffic control)
 - o Security
 - A welfare person MUST be on site for a response of more than one day's duration. IT IS IDEAL for an exercise.
- IT IS DESIRABLE that the following welfare be supplied on site if staff are to be on site for more than 4 hours straight:
 - Food and drinking water.
 - o Shelter
 - o Toilets
 - Hand sanitizer

Truck unloading

- All staff onsite MUST have safety briefing before load bindings are released.
- Truck parking or unloading site MUST comply with all "working on roads" regulations.
- Unloading MUST be done from the ground......at all times complying with "working at heights policy" (corporate risk register).
- AT NO TIME will any personnel/operator be directly beneath the slung load or within the crane swing range.
- Power lines MUST be twice the maximum extended crane reach away from the truck (This allows bindings to be safely thrown over the truck / any mechanical malfunction or human error)
- Strop connection IDEALLY only carried out by crane operator. Two extra personnel maximum.

- Unloading site MUST be clearly and securely cordoned off with cones and tape.
- Security person MUST be on site to control people's movement around unloading site while craning is underway.
- Any slings or lifting device MUST be certified and work within certified limits.
- Truck operation MUST always comply with CoPTTM (traffic management).

Vehicle movement inside demarcated work site

- MUST be cleared first with Regional On-Scene Commander (ROSC) and/or H&S rep.
- All personnel MUST be briefed of intended movement.
- Vehicle WILL IDEALLY have a reversing warning device operating.
- Vehicle driver WILL IDEALLY take directions from a designated "points person" while reversing.

Working off a jetty or platform over water and floating pontoon

- PFD MUST be worn at all times.
- There MUST be a safety briefing and hazard identification before walking onto structure.
- IT IS IDEAL to work in pairs.
- IT IS IDEAL to have a throw bag.
- Be aware you may be working from height if the tide is out.
- IT IS IDEAL to be aware of weather conditions and tsunami risk.
- IT IS IDEAL contact is made with supervisor/ECC staff or ROSC informing movements on and off the structure.

Working around water

- If your boots are likely to get wet, you MUST wear a PFD.
- IT IS IDEAL to have a throw bag at the ready.
- All responders MUST comply with WRC's "always working around water" standard.

Working from a vessel

- Vessel skipper's instructions MUST be followed at all times, UNLESS there is genuine concern for your immediate safety.
- Appropriate footwear MUST be worn on vessels.
- NEVER tie booms off to a vessels cleat; ropes are to be wrapped around a cleat sufficiently to stop slippage and held; allowing a quick release if required. Permission MUST be given by the ROSC to knot a boom to a vessel.
- A vessel's skipper MUST be aware of the weather.
- Some form of communication MUST be established between all vessels and shore in order of preference.
 - VHF radios
 - o Cell phones
 - o hand signals
- The task MUST stop if no form of communication can be established.
- IT IS IDEAL to have another form of lookout and/or intervention should another vessel enter the booming area.
- If there is not a minimum of 500m clear line of vision of the booming area....a support warning vessel MUST be on site.

Machinery operation

- Hearing protection MUST be worn if a normal conversation cannot be carried out.
- Eye protection MUST be worn by the operator. IT IS IDEAL others in close vicinity wear eye protection.
- Operator MUST wear leather gloves if handling hot machinery and ideally when using all other machinery.
- Operators MUST be competent in machinery operation.
- Weights over 20 kilo SHOULD be shared by 2 persons where manual handling could lead to injury.
- Protective clothing MUST be worn while refueling.

Oil recovery

- The following MUST be worn if in direct contact with oil:
 - PVC coat and pants if recovering wet oil and oil can contact clothes.
 - OR long PVC apron.....as long as arms are not contacted by oil.
 - OR disposable overalls if recovering weathered coagulated oil.
 - o Gumboots
 - Long gauntlet PVC gloves
 - All staff actively spraying dispersant or likely to encounter spray drift MUST use carbon masks.
 - It is ideal to use carbon masks if fumes are present but not at toxic levels.
- IT IS IDEAL that PVC gloves are taped to the overalls or coat sleeves.

Completion of task/final checks

- All oil contaminated equipment/waste must be disposed of using commercial waste contractors.
- All staff equipment and vehicles must be thoroughly decontaminated before leaving the cordoned off oil recovery site.

Maintenance

• Maritime New Zealand oversees equipment maintenance. Hands on maintenance is carried out by WRC staff.

Appendix 2 – Competency Assessment

ANNEX 1: COMPETENCY ASSESSMENT

Trainee Name:	Position:	
Trainer Name:	Position	
Date:		

1. Name 2 risks or hazards associated with this procedure?

1.	
2.	

2. List two items of personal safety equipment that you are required to wear when entering a MOS work site?

1.	
2.	

3. List the other items of PPE that may be required and for what tasks?

1.	
2.	
3.	
4.	

4. Under what conditions can a vehicle enter a cordoned off MOS worksite?

1.	
2.	
3.	
4.	

5. Name the three tiers of MOS command structure for a regional response?

1.	
2.	
3.	

Assessment Score:	Note: 1	00% required for competency		Competend	cy:	C / NYC
Trainer Signature:			Trainee Signat	ure:		

Appendix 3 – Model Answers

Do not give to trainee

1. Name 2 risks or hazards associated with this procedure?

1. Sinking vessels, weather (cold, sun stroke, sunburn etc), oil, trips slips falls, public, traffic, tsunami, drowning, crushing, machinery, toxic chemicals, sea conditions, high current, high winds, vehicle, heights, confined space, heavy lifting

2. Model answer

2. List two items of personal safety equipment that you are required to wear when entering a MOS work site?

1. Steel cap boots and high vis vest

2. Model answer

3. List the other items of PPE that may be required and for what tasks?

- Oil recovery: steel cap gumboots, disposable overalls or PVC jacket and pants, PVC gloves
- Machinery: leather gloves, ear defenders, cotton overalls, eye protection.
- Crane: Hard hat
- Vessel or near water: PFD
- 2. Model answer

4. Under what conditions can a vehicle enter a cordoned off MOS worksite?

 MUST be cleared first with Regional On-Scene Commander (ROSC) and/or H&S rep. All personnel MUST be briefed of intended movement. Vehicle WILL IDEALLY have a reversing warning device operating Vehicle driver WILL IDEALLY take directions from a designated "points person" while reversing.

2. Model answer

5. Name the three tiers of MOS command structure for a regional response?

1. Regional on scene commander, person delegated task by ROSC, Senior regional responder

2. National event: add National on scene commander before ROSC

Appendix 4 - Equipment

Item	Description	No. Held
	Each 80-metre system includes:	
	4 - Boom lengths 20 metres long	
	4 - 22S anchors c/w 6-metre chain	
Land/Sea boom	2 - end connectors	6
80 m	4 - marker buoys	0
	1 - ballast pump c/w hose and connections	
	1 - inflator c/w connections	
	1-220 metres anchor warp, 14mm diameter	
	Each 99 metre system includes:	
	1 - 66 metre boom	
Rapid deployment	1 - 33 metre boom	2
boom	2 - marker buoys	2
	2 - end connectors	
	1 - 70 metre anchor warp, 14mm diamete	
	Each system includes:	
Land/sea	2 – air inflation blowers	
	2 – ballast water pumps	
support crate	2 – 10 metre x 2" rigid hose	1
	2 – 5 metre x 2" rigid hose	
	2 – fuel containers	
	1 – blue tub with extra fittings and lay flat hose	

Skimming Systems

Item	Description	No. Held
Vikoma Delta Head	Each system includes: 1 – Delta head 1 – 2" suction pipe c/w floats 1 – 3 metre x 2" rigid suction hose 1 – 2" female to 3" male camlock adaptor	1
Desmi Minimax skimmer	Each system includes: 1 - skimmer 1 - spate pump 1 - suction hose, oil resistant 3 - discharge hose, oil resistant 2 - floats 1 - strum 1 - hose adaptor	1

	Each system includes:	
	1 - 7K disc skimmer	1
Komara 7K disc	1 - floating pump	
skimmer	1 - power pack	
	1 - 2 metre x 3" rigid suction hose c/w hose floats	
	1 - 10 metre x 2" rigid discharge hose	

2 - 10 metre x 2" lay flat discharge hose 2 - 10 metre x 3/8" hydraulic hose set	
2 - 10 metre x 1/4" hydraulic hose set	
2 - 1 metre x 1/4" hydraulic hose set	

Pump Systems

Item	Description	No. Held
	Each system includes:	
	1 - Honda pump	
	3 - discharge hose, oil resistant	
Handa munu	1 - suction hose, oil resistant	1
Honda pump	1 - strum	1
	1 - foot valve	
	1 - adaptor	
	1 - hose adaptor	

Temporary Storage Systems

Item	Description	No. Held
	Each system includes:	
Frame tank	1 – 7,500 ltr tank	
7,500 ltr	1 - frame set	2
	1 – ground sheet	
	1 - swan neck pipe	

Ancillaries

Item	Description	No. Held
Dolav storage bin	Each system includes: 1 – 700 ltr Dolav bin c/w/lid	1

Wildlife Support

Item	Description	No. Held
Wildlife Support	Each system includes crate	1
Equipment	Storage Bins	1
	Transport boxes	3
Capture	Matasorb (sorbent mats)	50
	Wildlife Collection tags	100
	Long handled dip nets	75
	Pillowcases	10
	Tyvex suits - size M	50
Bin 1	Tyvex suits - size L	3
	Tyvex suits - size XL	12
	Tyvex suits - size XXL	12
	, Nitrile gloves (disposable) - size S	3
	Nitrile gloves (disposable) - size M	2 boxes
	Nitrile gloves (disposable) - size L	2 boxes
	Safety sunglasses	3 boxes
	PVC gloves (green rubber)	20 pairs
	High visibility Safety Vests	20 pairs
	Whistles	20 20
	Hibitane/Hibiclens disinfectant - 500ml	20
	Paper towels	1
	Alcohol hand gel (small bottles)	10 rolls
	Field notebooks (plastic paper)	20
	Pencils	10
	Field Guide to Birds of NZ	20
		1
	Infectious waste bags	20
	Plastic leg bands for bird ID	
	Sharpie pens	50
Dia D		10
Bin 2	50ml syringes, without catheter	20
Stabilisation	20ml syringes, without catheter	20
	10ml syringes, without catheter	15
	Roll of silicone tubing	15
	Cotton buds	20 m
	0.9% NaCl (500ml bottle)	5 pkts
	Squeeze bottles	2
	Digital thermometer	3
	Electrolytes, powder	1
Bin 3	Plastic bags	
Dead bird collection	Cable ties, 200mm	100
	Cable ties, 100mm	100
	Clipboards	100
	Writing Pads	5
	Nylon rope - 4mm 30m	5
		2
	Animal admission logs in folder	60
	Register of equipment (in and out)	
	Stock rotation schedule	1
	Audit checklist	1
	Non-tamper plastic sealing tag	1
	Bird scare tape	
	Air horn	5 rolls
		1

Rotatable stock:	Nitrile gloves – check expiry dates during audit and replace as necessary	

Consumables

The following details the target stock level for the listed consumable items. Operational usage and replenishment of these items will be ongoing. All usage and replenishment is to be recorded on the appropriate dispersant or sorbent log sheet and communicated to Maritime New Zealand

Description	Stock
Pads	1600
Booms	48