

# CONTENTS

---

1. INTRODUCTION .....	1
1.1 Background.....	1
1.2 Mandate.....	2
1.2.1 SPREP Pollution Protocol .....	2
1.2.2 OPRC Convention.....	2
1.1 Aim and Objectives.....	3
1.2 Technical Scope: Tier One, Two and Three Spills.....	3
1.3 Geographical Scope.....	4
1.4 Parties to the Plan.....	5
1.5 Underlying Principles & Protection Priorities.....	5
1.6 Risk Assessment.....	6
2. ROLES & RESPONSIBILITIES.....	11
2.1 SPREP Technical Secretariat.....	11
2.2 SPREP Island Member Governments.....	11
2.3 SPREP Non-Island Member Governments.....	12
2.4 Oil Industry.....	13
3. US OCEANIA REGIONAL CONTINGENCY PLAN (ORCP).....	15
4. POLLUTION REPORTS & COMMUNICATIONS.....	16
4.1. Pacific Regional Marine Spill Reporting Centre (PACREP).....	16
4.2. Surveillance & Spill Detection.....	16
4.3. Initial Pollution Reports (POLREPs).....	17
4.4. Situation Reports (SITREPs).....	18
4.5. Post-Incident Reports (POSTREPs).....	18
5. RESPONSE OPERATIONS.....	19
5.1. General.....	19
5.2. Incident Command System (ICS).....	19
5.3. Secure Human Life, Health & Safety.....	20
5.4. Stem Spill Source.....	20
5.5. Spill Assessment & Reporting.....	20
5.6. Spill Surveillance and Forecasting.....	20
5.7. Leave Alone & Monitor.....	20
5.8. Containment & Recovery at Sea.....	21
5.9. Use of Oil Spill Dispersants.....	21
5.10. Foreshore Protection.....	21
5.11. Foreshore Clean-up.....	22
5.12. Oiled Wildlife Operations.....	23
5.13. Oily Waste Management.....	24
5.14. Joint Response Operations.....	25
5.15. Chemical Spills/HAZMAT Response.....	26
6. EXTERNAL ASSISTANCE.....	26
6.1. Requests for Assistance.....	26
6.1.1. Assistance from Neighbouring Island Governments.....	26
6.1.2. Assistance from SPREP Technical Secretariat.....	26
6.1.3. Assistance from SPREP Non-island Governments.....	27
6.1.4. Assistance from Oil Industry.....	28

6.1.4.1 In-Country Industry.....	28
6.1.4.2 Australian Marine Oil Spill Centre (AMOSOC).....	28
6.1.4.3 Clean Islands Council (CIC).....	29
6.1.4.4 East Asia Response Limited (EARL).....	30
6.1.5 Assistance from other Parties.....	30
6.2. Customs, Immigration & Quarantine.....	30
6.3. Logistics.....	30
6.4. Finances.....	31
6.4.1. Funding of Spill Responses - National Marine Pollution Funds.....	31
6.4.2. Funding External Assistance - Cost Recovery & Reimbursement.....	32
6.4.3. Maintenance of PACPLAN.....	32
7. RESPONSE TERMINATION & POST SPILL ACTIVITIES.....	33
7.1. Response Termination.....	33
7.2. Equipment Cleaning/Restoration and Return.....	33
7.3. Response Evaluation & Debriefing.....	33
7.4. Damage Assessment & Monitoring.....	34
7.5. Environmental Rehabilitation & Remediation.....	35
8. EQUIPMENT.....	36
8.1 National Resources.....	36
8.2 Regional Resources.....	36
9. TRAINING & EXERCISES.....	38
9.1 Annual PACPOL Workshops.....	38
9.2 Specialist Training Courses.....	38
9.3 In-Country Exercises.....	39
9.4 Regional Register of Marine Spill Responders.....	39
10. ADOPTION, CONTROL & REVISION OF THE PLAN.....	40
10.1 Adoption of the Plan.....	40
10.2 Control of the Plan.....	40
10.3 Revision of the Plan.....	40
FIGURES	
Figure One: The Pacific Islands Region/PACPLAN Area.....	42
Figure Two: Major Sources of Oil in the Marine Environment.....	7
Figure Three: Major Causes of Marine Oil Spills (All Spills).....	7
Figure Four: Major Causes of marine Oil Spills (Various Size Classes).....	8
Figure Five: Transit Shipping Lanes in the PACPLAN Area.....	43
Figure Six: Incident Command System1.....	9
Figure Seven: Primary Assistance Groupings.....	44
Figure Eight: Secondary Assistance Groupings.....	45
Figure Nine: Area Serviced by AMOSC.....	46
APPENDICES	
Appendix One: PACPLAN Marine Spill Response Contacts	
Appendix Two: Standard Pollution Report (POLREP) Form	
Appendix Three: Standard Situation Report (SITREP) Form	
Appendix Four: Standard Request for Assistance Form	
Appendix Five: Model Memorandum of Understanding for Bilateral Cooperation	

# 1. INTRODUCTION

---

## 1.1 Background

In a region sometimes called ‘Oceania’, the health of the ocean is fundamental to the health of all aspects of the entire Pacific islands region. Marine pollution is widely recognised as one of the three major threats to the world’s oceans, along with habitat destruction and over-exploitation of living marine resources. Spills of oil and other chemicals into the marine environment, both from ships and land-based sources, are a significant source of pollution.

The importance of coastal and marine environments to every aspect of the lives of Pacific Islanders cannot be overstated, and the impacts of marine spills constitute a major concern for Pacific island peoples.

Because of a lack of major land-barriers throughout the Pacific, combined with a complex pattern of trans-oceanic currents, the Pacific Ocean is perhaps the most highly connected and continuous ocean, in terms of water movement, on the planet. This compounds the seriousness of marine pollution for the region. Events in one area can have implications for other areas, as pollutants and contaminants are carried from their sources by ocean movements.

Pacific islands must therefore work together, through regional arrangements, if marine pollution is to be addressed effectively. No single country in the region can address this problem in isolation. There are a number of agreements, conventions, instruments, policies and other initiatives that require countries to work cooperatively to address marine pollution and protect the marine environment generally. These include, at the international level; the international *Law of the Sea (LOS)*, *Agenda 21* arising out of the United Nations Conference on Environment and Development (UNCED) held in Rio de Janeiro in 1992 and the *Barbados Programme of Action on the Sustainable Development of Small Island Developing States* arising out of the Global Conference on the Sustainable Development of Small Island Developing States, held in Barbados in 1994. At the regional level they include the *Convention for the Protection of the Natural Resources and Environment of the South Pacific Region* (the SPREP Convention) and associated Protocols and the *Action Plan for Managing the Environment of the South Pacific Region 1997-2000* (SPREP Action Plan).

The *South Pacific Regional Environment Programme* (SPREP), as part of its role to assist island members to address environmental issues and in accordance with the SPREP Action Plan, has developed a comprehensive programme to address marine pollution. This is called the *Pacific Ocean Pollution Prevention Programme* (PACPOL).

PACPOL includes, amongst other things, a number of initiatives to assist island members with marine spill prevention and response. One of these initiatives is the development of this plan, the *Pacific Islands Regional Marine Spill Contingency Plan* (PACPLAN).

PACPLAN provides the framework for cooperative responses to major marine spills in the Pacific islands region, including broad aims and objectives, underlying spill response philosophies and priorities, roles and responsibilities of relevant organisations, regional and supra-regional linkages and mechanisms for accessing regional and supra-regional assistance.

## 1.2 Mandate

In addition to the international and regional instruments referred to above, the primary mandate for PACPLAN stems from both a specific regional convention and international convention, as outlined below.

### **1.2.1 SPREP Pollution Protocol**

At Noumea, New Caledonia on 25 November 1986, the members of SPREP adopted the *Convention for the Protection of the Natural Resources and Environment of the South Pacific Region* (the SPREP Convention), with associated Protocols. The Convention includes a *Protocol Concerning Cooperation in Combating Pollution Emergencies in the South Pacific Region* (SPREP Pollution Protocol). The Protocol provides a formal framework for cooperation between Pacific island countries and territories when responding to marine spills. The SPREP Pollution Protocol requires Parties to:

- Take initial action at the national level to respond to pollution incidents (marine spills).
- Cooperate with other Parties in the response to pollution incidents.
- Establish and maintain, within their respective capabilities, the means of preventing and responding to pollution incidents, including;
  - Enacting relevant legislation.
  - Developing and maintaining contingency plans.
  - Designating a responsible authority.
- Exchange information with each other and report all pollution incidents to relevant authorities and other parties likely to be affected.
- Provide assistance, within their capabilities, to other Parties who request such assistance.
- Facilitate the movement of personnel and materials needed for the response to a pollution incident into, out-of and through its territory.
- Develop and maintain, where appropriate, sub-regional and bilateral arrangements for preventing and responding to pollution incidents.

The full text of the SPREP Convention can be obtained from the SPREP Secretariat (Appendix One).

### **1.1.2 OPRC Convention**

At the international level, the International Maritime Organisation (IMO) has prepared the *International Convention on Oil Pollution Preparedness, Response and Cooperation 1990* (OPRC Convention). The OPRC Convention has requirements of Parties similar to those of the SPREP Pollution Protocol, as outlined above.

The full text of the OPRC Convention can be obtained from IMO ([www.imo.org](http://www.imo.org)).

## **1.3 Aim & Objectives**

The Aim of PACPLAN is:

- To prevent/minimise damage to marine and coastal environments and resources from major marine spills, and to hasten the recovery of any environments and resources damaged by major marine spills, in the Pacific islands region.

The Objectives of PACPLAN are:

- To facilitate the implementation of both the SPREP Pollution Protocol and the OPRC Convention at the operational level for all SPREP island members, including those which are not yet parties to SPREP Pollution Protocol and/or the OPRC Convention.
- To promote and implement regional cooperation in planning and training for marine spill response, and in the actual prevention of and response to marine spills.
- To provide systems for the detection and reporting of marine spills within the area covered by the plan, including communications networks.
- To outline the counter-measures available to restrict the spread of a spill and minimise the environmental, economic and social impacts of a spill.
- To outline the mechanism and procedures by which SPREP island members may request assistance, in the form of specialised equipment and technical experts; from each other, from SPREP non-island members, from the oil industry and from other parties.
- To outline procedures for the recovery of costs of responding to marine spills.
- To outline arrangements for resourcing maintenance of PACPLAN and associated systems by SPREP.

## **1.4 Technical Scope & Tier One, Two and Three Spills**

Traditionally, spill response plans tend to focus exclusively on oil spills. Internationally, there is increasing recognition that it is more effective and efficient to integrate oil spill response arrangements with those for all pollutants, including oil, chemicals and hazardous materials (HAZMAT).

PACPLAN therefore covers the response to spills into the marine environment of all forms of pollutants. However, it retains a focus on oil spills, as oil is the main pollutant likely to be spilled in the region.

PACPLAN covers spills into the marine environment from all sources, including both shipping and shore-based facilities.

As a regional plan, PACPLAN applies only to spills where regional cooperation and/or supra-regional assistance is required. Under PACPLAN, such spills are classified as Tier Three spills. PACPLAN does not cover Tier One and Tier Two spills.

For the purposes of PACPLAN, Tier One, Two and Three spills are defined as follows:

### Tier One

- Small spills that are within the response capability and resources of an individual port or oil terminal within the SPREP island member where the spill occurs, and

- that impact or threaten to impact within the jurisdiction of that SPREP island member only.

Tier One spills should be covered by oil terminal or port specific contingency plans. Individual oil companies and port administrations should develop, implement and maintain such plans.

#### Tier Two

- Medium spills that are within the national capability and resources of the individual SPREP island member where the spill occurs, and
- that impact or threaten to impact within the jurisdiction of that SPREP island member only.

Tier Two spills should be covered by National Marine Spill Contingency Plans (NATPLANS). Each National government should develop, implement and maintain a NATPLAN, through a National Marine Pollution Committee comprising, as a minimum; the national administrations for maritime transport, environment, fisheries/marine resources and disaster management and the oil industry.

#### Tier Three

- Large spills that are of a magnitude and/or severity that is beyond the response capability and resources of the individual SPREP island member where the spill occurs, and/or
- that impact or threaten to impact within the jurisdiction of two or more SPREP island members.

Tier Three spills should be covered by the relevant NATPLAN, supported by PACPLAN.

Set quantities and sizes of spills have intentionally not been used in the definition of Tiers. This is because in some instances a relatively small spill may fit the Tier Two or even Tier Three category, depending on the response capabilities and resources of the SPREP island member where the spill occurs, the prevailing conditions at the time of the spill and the types of environments impacted or threatened.

Allocation of any one spill to a particular Tier can only be done at the time of the spill, according to an assessment by the Lead Agency of the SPREP island member where the spill occurs.

Because in reality spills do not fall into convenient categories, the boundaries between Tiers will inevitably be blurred. Lead Agencies must therefore be prepared to involve the next highest Tier from the earliest moments, as it is easier to stand down an alerted system than to escalate a response by calling up unprepared reserves.

## **1.5 Geographical Scope**

The geographical scope of PACPLAN, referred to hereafter as the PACPLAN Area, is the Pacific islands region, defined as the coastlines and all marine waters within the 200 nautical mile limits of the 22 Pacific island countries and territories which are members of SPREP (SPREP island members) (Table One and Figure One).

SPREP island members are grouped into two categories, the 14 independent and semi-independent countries (Pacific island countries) and the eight territories (Pacific island territories - Table One).

In addition to the SPREP island members, there are four developed countries which are also members of SPREP (Table One). Although two of these, Australia and New Zealand, are arguably islands, all

four developed countries are referred to as SPREP non-island members. They do not constitute part of the Pacific islands region/PACPLAN Area, but play a vital role in supporting PACPLAN (refer sections 2.3 & 6.1.3).

**Table One: SPREP Member Countries and Territories**

SPREP Island Members		SPREP Non-Island Members
Pacific Island Countries	Pacific Island Territories	
Cook Islands	American Samoa (US)	Australia
Fiji Islands	Northern Mariana Islands (US)	France
Kiribati	French Polynesia (France)	New Zealand
Marshall Islands	Guam (US)	United States of America
Federated States of Micronesia	New Caledonia (France)	
Nauru	Pitcairn Islands (UK)	
Niue	Tokelau Islands (NZ)	
Palau	Wallis & Futuna (France)	
Papua New Guinea		
Samoa		
Solomon Islands		
Tonga		
Tuvalu		
Vanuatu		

## 1.6 Parties to the Plan

The Parties to PACPLAN are the 26 SPREP member governments (both island and non-island members as listed above), plus the oil industry, as represented by the oil companies which operate within the PACPLAN Area.

## 1.7 Underlying Principles & Protection Priorities

PACPLAN is founded on the following general principles:

- Every effort must be made by industry and government to **prevent** spills of oil and other hazardous materials from occurring, as the highest priority.
- Despite prevention measures, spills will occur from time to time, and it is necessary to have competent **contingency plans** in place to deal effectively with such spills, at the local, national and regional/international level. PACPLAN constitutes the regional/international response plan for the Pacific islands region.
- The response to marine spills under PACPLAN will always seek to complement and make use of **natural forces** to the fullest extent possible.
- The response to marine spills under PACPLAN will always seek to maximise cooperation, coordination and integration **between government and industry**, and to adopt the most **cost-effective, efficient** and **practicable** response options available.

In the event of a marine spill requiring a response to be mounted under PACPLAN, the following protection priorities will be adhered to (in order of priority):

- Human life, health and safety.

- Biological habitat.
- Rare and endangered species.
- Commercial resources.
- Cultural resources.
- Non-commercial property and amenity.

Within these protection priorities, various marine and coastal environments and resources have differing environmental sensitivities, requiring further prioritisation of spill response efforts. The designation of environmental sensitivity gradings requires assessment at a much larger scale than can be provided by a regional plan such as PACPLAN. Individual national marine spill contingency plans (NATPLANS) should designate environmental sensitivities for the coastal and marine areas of each SPREP island member. Guidance on the designation of environmental sensitivity gradings is provided in the IPIECA/IMO publication *Sensitivity Mapping for Oil Spill Response 1996*.

The response to any spill carried out under PACPLAN should be consistent with the environmental sensitivity gradings contained in the NATPLAN(s) for the SPREP island member(s) where the spill has occurred.

## 1.8 Risk Assessment

At the time of writing (April 1999), a quantitative, systematic assessment of the risks of marine spills has not been carried out for the PACPLAN Area. Three projects are contained in the PACPOL workplan that will provide a detailed and accurate marine spill risk assessment. These are PACPOL project RA 1: Marine Pollution Risk Assessment for the Pacific Islands Region, PACPOL project MS 1: Marine Spill Prevention Review; and PACPOL project PA 1: Environmental Audits of Oil Terminals. This section of PACPLAN will be updated as these PACPOL projects are completed. In the mean-time, a general analysis, based on global data such as that cited in IPIECA (1991), provides the following overview.

The main sources of marine spills are (not in any priority order):

- Shipping accidents, including groundings and collisions, which result in fuel oil or oil/other hazardous materials carried as cargo, being released into the marine environment.
- Intentional/accidental (and illegal) discharges of waste oil by ships (vessel operations).
- Accidents during the loading and discharge of tankers.
- Accidents during the bunkering (fuelling) of ships.
- Discharges (both accidental and operational) of oil from offshore oil exploration and production facilities.
- Accidents involving shore-based facilities such as storage tanks, pipelines and road tankers, where oil/other hazardous materials escape and flow to the sea.



In addition, atmospheric fallout, natural seepage from sub-marine vents and urban run-off are significant sources of marine oil pollution, but generally result in chronic (and often more serious) pollution, rather than discrete, acute spills.

Figure Two indicates the estimated percentage that some of these sources contribute to total marine oil pollution on a global scale, and Figure Three indicates the estimated major causes of all oil spills on a global scale.

Figure Two: Major sources of oil pollution in the marine environment (US Academy of Sciences, cited in IPIECA 1991)

Figure Three: Major causes of marine oil spills (all spills) (ITOPF, cited in IPIECA 1991)

(to be added)

It is clear that shipping activities are a significant source of marine oil pollution, with tanker accidents and vessel operations accounting for 45% of Figure Two.

It is also clear that the handling and transfer of oil and oil products from ship to shore and shore to ship, rather than shipping accidents, accounts for the vast majority of oil spills from ships, with loading and discharge of tankers and bunkering of ships accounting for over 80% of spills in Figure Three.

Whilst similar data has not been collected and analysed specifically for the PACPLAN Area, it is likely that the breakdown would be similar. The highest risk of spills in the Pacific islands region is therefore likely to be during the handling of oil, oil products and other hazardous materials from ship to shore/shore to ship, while in port.

National marine spill prevention and response planning should therefore focus on ports and terminals where ship bunkering and tanker operations are carried out.

Whilst ship groundings only account for 9.3% of all spills in Figure Three, they usually result in much larger spills than oil handling operations, as indicated by Figure Four. On a global scale, ship groundings account for over 50% of the largest spills, as indicated in Figure Four (iii).

Figure Four (i-iii): Major causes of marine oil spills (various size classes) (ITOPF, cited in IPIECA 1991)

(i) <7 tonnes

(ii) 7-700 tonnes

(iii) >700 tonnes

(To be added)

As PACPLAN is designed to address Tier Three spills (i.e. major spills), ship groundings and collisions are the major risk factor of concern to PACPLAN.

The PACPLAN Area is host to several categories of seagoing traffic, which can be grouped as follows:

- Transit shipping: Ships which pass through the region without stopping, en-route to other destinations.
- International shipping (as distinct from transit shipping): Ships calling at the major ports of the region from outside the region, either with incoming cargo or tourists (cruise ships) or to take out exports.
- Regional shipping: Ships trading (both cargo and passengers) between the countries and territories within the region.
- Domestic shipping: Ships trading (both cargo and passengers) within each country and territory in the region.
- Foreign fishing fleet: Fishing vessels from distant water fishing nations operating within the region.
- Domestic fishing fleet: Fishing vessels from the Pacific islands themselves, and
- Miscellaneous: Private vessels, yachts and special purpose vessels such as warships and research ships.

In terms of potential to cause Tier Three spills (and hence relevance to PACPLAN), transit shipping and international shipping are considered the highest risk categories. SPREP has carried out a preliminary assessment of ship groundings, in developing the Manual *Ship Groundings in the Pacific Islands Region – Issues & Guidelines* (Preston et al 1997). This assessment found that transit shipping transects the region in several well-established “shipping lanes” (Figure Five). In general, these routes attempt to take advantage of the shortest distance between points of departure and destination while minimising the necessity of passing in close proximity to islands or hazards to navigation such as submerged reefs. It should be noted that these routes often vary and due to seasonal weather patterns, proximity to intermediate ports and other factors, there is sometimes more than one major route between the same two points.

For example, there are at least two major routes between Sydney and Panama. One goes north of New Zealand and then eastward over a great circle route of 7,719 miles. The only land masses in proximity to this route are the northern tip of New Zealand, Pitcairn and the southern Galapagos. An alternate route from Sydney passes between Norfolk Island and New Caledonia, then south of the Lau islands in Fiji, west of Savai’i in Samoa, continuing south of Tokelau and through the Line Islands of Kiribati. This route, covering a total distance of 8,375 nautical miles, crosses the Equator and merges with the major “central route” that tracks across the Pacific from the Philippines to Panama from roughly 5° to 7° North latitude.

Some major routes of concern, i.e. those which pass in proximity to islands or reefs in the PACPLAN Area, include the alternative Sydney–Panama route described above, as well as the following:

- Southern Asia to Panama via Torres Strait, passing in proximity to Fiji and French Polynesia.
- Southern Asia to Panama via Torres Strait, passing in proximity to Papua New Guinea’s Louisiade Archipelago, the Solomon Islands, southern Kiribati (Gilbert group) and north-eastern Kiribati (northern Line Islands).
- Eastern Australian ports to Japan, passing in proximity to the southern tip of the Louisiade Archipelago, New Ireland, the Federated States of Micronesia (central Caroline Islands) and Northern Mariana Islands.
- Sydney to Honolulu, passing in proximity to the Solomon Islands (Santa Cruz Islands), Tuvalu and central Kiribati (Phoenix Islands).

Cargoes carried by vessels on these routes include crude oil shipped on an opportunistic basis from Indonesia and South Australia to Hawaii and the west coast of the USA, and refined petroleum products from Singapore and other Asian ports to both North and South America. Transit shipping carrying cargoes other than oil also pose a pollution threat, with some of the larger bulk carriers carrying in excess of 5,000 tonnes of heavy fuel oil.

As there is little oil refined in the Pacific islands region (the only active refinery is in the Highlands region of Papua New Guinea, refining small amounts of oil for domestic use), crude oil is not a major component of inbound/outbound cargoes although, as noted above, some crude oil transits the region from time to time.

On the other hand, products refined from oil (distillate, petrol and so forth) are one of the principal cargoes entering the region. The total regional demand for all product forms of petroleum is estimated by the South Pacific Forum Secretariat to be in the neighbourhood of 23,633,000 barrels (3.2 million tonnes<sup>1</sup>) per year or about 65,000 barrels (8,870 tonnes) per day. Of this total, all must be imported from outside the region by sea except for about 5,000 barrels (680 tonnes) per day which is produced and consumed in the Highlands region of Papua New Guinea (Energy Section, Forum Secretariat). The main consumers of imported petroleum products are: Guam, with about one third the total; PNG with roughly 20 percent; New Caledonia, with 13 percent; and Fiji and French Polynesia, each using about 10 percent.

Major supplies to these centres enter the Pacific on medium-range (MR) tankers, mainly in the 25,000–50,000 DWT (deadweight) class, which service Fiji, Samoa, Solomon Islands, Papua New Guinea, New Caledonia and French Polynesia. As an example of traffic levels, about 16 MR tankers come to Fiji per year (10 or 11 from Australia, 5 to 6 from Singapore). Guam’s products come almost exclusively from Singapore, while Papua New Guinea receives most of its supply from Australia. In American Samoa, a 16,000 tonne MR tanker from Honolulu regularly replenishes the shoreside terminal storage at Pago Pago (total capacity: 194,900 barrels) for use by fishing vessels as well as the island’s two canneries and power plant.

Although countries such as Samoa and Solomon Islands, with relatively low levels of fuel consumption, do not have the demand for the large quantities carried by MR tankers, such ships often divert from their normal routes to provide service to these areas in return for payment of a “divergence fee”.

---

<sup>1</sup> 7.33 barrels = 1 metric tonne = 256 imperial gallons = 308 US gallons

There are basically three routes for medium range tankers (parentheses indicate stops which are not always made):

- Melbourne, Port Moresby, Lae, Madang, Rabaul, (Honiara);
- Singapore, (Noumea), Vuda, (Vatia, port for Fijis gold mine), (Apia), (Suva);
- Melbourne, Noumea, Suva.

South of the equator, local coastal tankers (LCT) service other locations, mainly out of Vuda (Fiji). These include Tonga, Niue and the Cook Islands to the east, Tuvalu and Kiribati to the north, and Vanuatu to the west. These ships, of which an example is the *Pacific Rover*, have a capacity of 800 to 1,000 tonnes of oil-based products. Mobil's outlets in Palau, Federated States of Micronesia and the Marshall Islands are serviced by a 6,000 tonne ship, the *Golden Craig*.

As well as delivering to shoreside bases, several ocean-going tankers (exact number unknown but probably three to six at any one time) operate in support of the tuna purse seine vessels in the western and southern parts of the Pacific islands region. These tankers, which are mainly controlled by Korean and Taiwanese interests, are available to steam to points on the constantly changing fishing grounds, but usually operate outside the exclusive economic zone of any one country. As a rule they do not enter island ports and are for the most part invisible to island authorities.

In addition to transit shipping and carriage of oil in the region by tankers, regional and domestic shipping in general and the foreign and local fishing fleet further compound the regional marine spill risk scenario. A more detailed analysis of regional shipping is given in Preston et al 1997.

## 2. ROLES & RESPONSIBILITIES

---

### 2.1 SPREP Technical Secretariat

The SPREP Technical Secretariat, located in Apia, Samoa, has the following roles and responsibilities under PACPLAN:

- Maintaining and updating the plan, including:
  - Staying abreast of developments and changes which affect the content of the plan, and amending the plan accordingly.
  - Managing the distribution of the plan, which is a controlled document.
  - Maintaining a register of holders of the plan.
  - Ensuring that all holders receive updates to the plan as they occur.
- Organising and managing the annual PACPOL workshops, including training in marine spill response, a desk-top exercise of PACPLAN and a regional coordination meeting (refer section 9).
- Providing/co-ordinating scientific and environmental advice to island member governments in the event of a spill.
- Assisting SPREP island members, if required, with requests for external assistance in the event of PACPLAN being activated (refer section 6).
- Managing the Pacific Regional Marine Spill Reporting Centre (PACREP), including dissemination of reports to affected parties and reporting annual spill statistics to interested parties (refer section 3.1).
- Maintaining and updating the SPREP Guidelines and Template for National Marine Spill Contingency Plans (SPREP NATPLAN Guidelines), and assisting SPREP island members to develop and implement NATPLANS.
- Generally assisting SPREP island members in the prevention of, planning for and response to marine spills.

The SPREP Technical Secretariat will develop and maintain the necessary staff and material resources to enable it to fulfil these responsibilities, within the resources made available from the general PACPOL programme.

### 2.2 SPREP Island Member Governments

Each SPREP island member government (including both Pacific island countries and territories), has the following roles and responsibilities under PACPLAN, in accordance with national capacity:

- Developing and maintaining a NATPLAN and a National Marine Pollution Committee (National Committee), including any necessary sub-plans for local areas such as individual ports (SPREP has developed NATPLAN Guidelines, which are available on computer disc as a template, that

provide countries with an “instant” contingency plan consistent with all relevant international and regional conventions, based on best-practice principles in relation to marine spill contingency planning).

- Drafting, passing, implementing and enforcing national marine pollution legislation (SPREP and SPC have developed Model Marine Pollution Legislation, which is available on computer disc as a template, that provides countries with “instant” legislation consistent with all relevant international and regional conventions, based on best-practice principles in relation to marine pollution legislation).
- Designating a Responsible Authority, which has legal responsibility for administering and enforcing the national marine pollution legislation and for the overall management of the NATPLAN. Ideally, the Responsible Authority should be the national maritime transport administration.
- Designating a Lead Agency, which has operational responsibility for managing the response to marine spills. The Lead Agency may or may not be the same as the Responsible Authority. Ideally, they should be the same.
- Reporting all marine spills to PACREP, in accordance with section 3 of PACPLAN.
- Taking effective action at the national level initially, to respond to marine spills that occur within its jurisdiction.
- Cooperating with and assisting neighbouring countries and territories in the response to marine spills, in the form of personnel and/or equipment, when such assistance is requested and in accordance any relevant Memorandum of Understandings and/or joint spill response plans developed bilaterally/multilaterally between neighbouring SPREP island members (refer section 5.14).
- Facilitating the provision of any external assistance that might be requested (refer section 6).
- Complying with the national government obligations of the SPREP Pollution Protocol and the OPRC Convention not covered above (refer sections 1.1.1 and 1.1.2).
- Reporting to SPREP any changes in circumstances, including levels of risk of marine spills, capability to manage marine spills, internal administrative arrangements and contact details, that may require revision and updating of PACPLAN.
- Attending the annual PACPOL workshop.

## **2.3 SPREP Non-Island Member Governments**

Each SPREP non-island member government (Australia, France, New Zealand and USA), has the following roles and responsibilities under PACPLAN:

- Assisting SPREP island members in preventing marine spills and planning and preparing for the response to marine spills. This assistance should be provided through SPREP, under the auspices of PACPOL, in the form of financial support, support-in-kind and/or technical assistance for relevant PACPOL projects, including training and equipment acquisition projects.
- Assisting SPREP island members with the actual response to marine spills, in the form of

personnel and/or equipment, when such assistance is requested and in accordance with section 6 of PACPLAN.

- Attending the annual PACPOL workshop.

## 2.4 Oil Industry

Oil companies operating in the region have the following roles and responsibilities under PACPLAN:

- Giving highest priority to preventing spills from tankers, terminals, depots and other facilities owned and/or operated by the companies.
- Immediately reporting all marine spills from their facilities both to the Lead Agency/Responsible Authority in the country/territory where the spill occurs and to PACREP, in accordance with section 3 of PACPLAN and the relevant NATPLAN.
- Developing and maintaining local marine spill response plans, for individual tankers, terminals, depots and other facilities owned and/or operated by the companies which are potential sources of spills, and ensuring that these plans are compatible and integrated with relevant NATPLANS.
- Establishing and maintaining stockpiles of marine spill response equipment for individual tankers, terminals, depots and other facilities owned and/or operated by the companies, with the types and amounts of equipment being appropriate to the level of risk at each facility.
- Ensuring that staff are appropriately trained in marine spill prevention and response.
- Taking effective action at the local level initially, to respond to marine spills that occur at industry facilities.
- Cooperating with and assisting governments in the response to marine spills, in the form of personnel and/or equipment, when such assistance is requested and in accordance with each country/territory's NATPLAN.
- Providing the resources of the Australian Marine Oil Spill Centre Pty Ltd (AMOSC) to respond to spills from facilities owned/operated by AMOSC member companies, in accordance with relevant arrangements/agreements between AMOSC and its member companies.
- Providing the resources of AMOSC to respond to spills from non-oil industry facilities, as part of any assistance package provided to a SPREP island member by the Australian government, should the Australian government request such assistance from AMOSC, and in accordance with relevant arrangements/agreements between AMOSC and the Australian government (refer section 6.1.4.2).
- Providing the resources of Clean Islands Council (CIC) to respond to marine spills in the region, should such assistance be requested, and in accordance with *(to be developed in consultation with CIC)* (refer section 6.1.4.3).
- Providing the resources of East Asia Response Ltd (EARL) to respond to marine spills in the region, should such assistance be requested, and in accordance with *(to be developed in consultation with EARL)* (refer section 6.1.4.4).
- Actively participating in the National Committees in each SPREP island member country and territory, and in planning, exercises and training activities.

- Attending the annual PACPOL workshop.



### **3. US OCEANIA REGIONAL CONTINGENCY PLAN (ORCP)**

---

Under the United States (US) *Oil Pollution Act 1990* (OPA 90), Regional Response Teams (RRT's) are established for various regions of US jurisdiction, including an *Oceania Regional Response Team* (ORRT) for the US Pacific islands. These comprise the Territory of American Samoa, the Territory of Guam, the State of Hawaii and the Commonwealth of the Northern Marianas.

ORRT is an inter-agency team comprising US Federal, State and Local government agencies chaired jointly by District 14 of the US Coast Guard (USCG) in Hawaii and Region 9 of the US Environmental Protection Agency (USEPA) in San Francisco. ORRT advises on response planning and actual responses to marine spills in the US Pacific islands.

ORRT has developed an Oceania Regional Contingency Plan (ORCP), which provides the framework for the response to marine spills in these jurisdictions. Responses to spills in the US Pacific islands are conducted under ORCP, and not PACPLAN.

However, the US Pacific islands (excluding Hawaii) may request external assistance from non-US parties under PACPLAN, in accordance with section 6. Like-wise, non-US parties may request assistance from the US and/or US Pacific islands under PACPLAN, in accordance with section 6.

# 4. POLLUTION REPORTS & COMMUNICATIONS

---

## 4.1 Pacific Regional Marine Spill Reporting Centre (PACREP)

Under PACPLAN, SPREP has established and maintains the Pacific Regional Marine Spill Reporting Centre (PACREP), at its office in Apia, Samoa.

PACREP is simply the SPREP fax number, and provides the focal point for receiving and relaying information concerning any marine pollution incident in the region. PACREP is a facility where:

- Reports (Pollution Reports or POLREPS) of all marine spills in the region are sent to by the Lead Agency and/or oil company where the spill occurs.
- Other parties potentially affected by a spill can be alerted from.
- The progress of a spill can be monitored, through the receipt of Situation Reports (SITREPS) from the Lead Agency where the spill occurs, allowing updates to be provided to affected parties.

POLREPS received by SPREP through PACREP are entered into a database and Geographic Information System, to provide a long-term picture of trends in marine spills throughout the region. This will assist updating of risk assessments and targeting of prevention, education, surveillance and enforcement efforts, and provides a performance indicator for spill prevention efforts and state of the environment reporting. SPREP is responsible for reporting annual spill statistics from PACREP to interested parties.

The contact details for PACREP are contained in Appendix One and are provided on the standard POLREP and SITREP transmission forms (Appendices Two and Three).

It should be noted that PACREP is NOT an emergency response facility, and is only functional during normal business hours. Its main purpose is for the collection, analysis and dissemination of spill data. The Lead Agencies in each country/territory should ensure that national marine spill emergency reporting and alerting systems are established and maintained (refer sections 4.2. - 4.5.).

## 4.2 Surveillance & Spill Detection

The initial detection of marine spills is not something that can be planned for. All personnel in various industries and government agencies involved in tasks where it is possible to be the first to observe a spill, including but not restricted to ships' crew, aircraft crew, oil company employees, port personnel and members of the general public, should be required to and be able to report a spill to the relevant authorities.

The requirement to report spills to the relevant authorities should be mandated under national marine pollution legislation, including penalties for failure to report a spill.

In order to enable spills to be reported, it is necessary for the Lead Agency in each Pacific island country/territory to broadly publicise relevant pollution emergency contact numbers, including those

for PACREP. Methods of publicising such contact numbers include the emergency section of telephone directories, notices to mariners, notices to aircrew, signage at boat ramps, marinas and ports, bumper/boat stickers and educational posters and pamphlets.

In addition to relying on opportunistic reports of spills as outlined above, under PACPOL SPREP is developing a Regional Marine Pollution Surveillance System (PACPOLPatrol).

PACPOLPatrol will utilise existing surveillance platforms and programmes such as the Pacific patrol boats programme, Forum Fisheries Agency (FFA) aerial surveillance programme and routine civil aviation. This programme includes:

- Training of Pacific patrol boats personnel and fisheries/aerial surveillance personnel in marine pollution surveillance.
- A system for voluntary participation by civil aviation as opportunistic observers during routine flights and voyages. Participants from this sector will receive training in marine pollution surveillance.
- Development of mechanisms for the rapid reporting of observed pollution incidents to PACREP and directly to enforcement and response authorities within national jurisdictions.
- Development of a standardised pollution reporting format for completion by surveillance personnel and submission to PACREP at the end of each surveillance mission.

PACPOLPatrol will greatly enhance the regional capability to detect and report marine spills, especially in offshore areas remote from shore. This programme will also assist effective enforcement action and provide data on the sources, frequencies, locations and types of marine spills in the region for use by management.

### **4.3 Initial Pollution Reports (POLREPS)**

Recognising the importance of rapid dissemination of information in the event of a marine spill, any ship's master or crew, aircraft crew, oil company employee, port personnel or any other person observing a marine spill should immediately and urgently report the spill to the Lead Agency in the country/territory where the spill has occurred. Appendix One provides contact details for the Lead Agencies in each Pacific island country/territory.

The Lead Agency should complete a POLREP, using the standard format contained in Appendix Six, and transmit this to SPREP/PACREP via facsimile. POLREPS should be transmitted to SPREP/PACREP for ALL spills, not just Tier Three spills.

The Lead Agency in each country/territory should also disseminate all POLREPS to all affected/interested parties, including those potentially affected by the spill, such as neighbouring governments if it appears likely that the spill may affect their sea areas and shorelines

### **4.4 Situation Reports (SITREPS)**

In order to provide periodic updates on pollution incidents, the Lead Agency in the country/territory where the spill has occurred, should transmit SITREPS to PACREP and all affected/interested parties

via facsimile at regular intervals throughout the spill, using the standard format contained in Appendix Three.

#### **4.5 Post-Incident Reports (POSTREPS)**

After a pollution incident, each government affected should prepare a brief report including:

- Assessment of the response operation, including reference to equipment used, its effectiveness, additional equipment, and training needs.
- Documentation of clean-up costs.
- Assessment of environmental and economic damage.
- Details of problems encountered.
- Recommendations regarding amendment or revision of NATPLANS/PACPLAN.

When each government has compiled these individual reports, the On Scene Coordinators and other personnel should meet with SPREP to review their collective experiences and compile an overall Post-incident Report (POSTREP), including if necessary, any recommendations for amending or revising PACPLAN (in accordance with procedures in section 10).

# 5. RESPONSE OPERATIONS

## 5.1. General

It is not the purpose of PACPLAN to provide detailed technical information on the specific methods and techniques that should be used to respond to a marine spill. These should be provided in the respective NATPLANS of each Pacific island country and territory. However, in responding to a marine spill, a logical sequence of actions should be followed as outlined in sections 5.3 to 5.13.

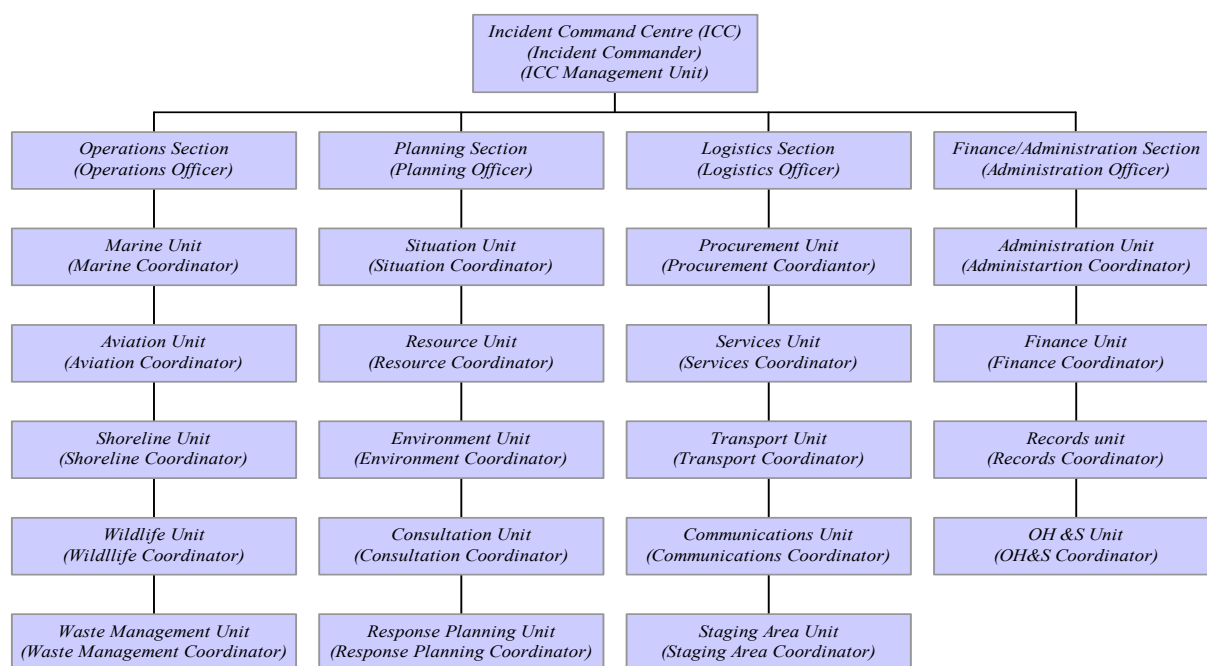
## 5.2 Incident Command System (ICS)

Response operations cannot be effectively carried out unless there is a clear organisational structure to command and control the response. This structure should be established by the designated Lead Agency of the government in each country/territory, and detailed within each NATPLAN.

A standard Incident Command System (ICS) has been adopted by many developed countries, including Australia, New Zealand and the US. To ensure consistency and inter-operability, a simplified version of the ICS is the preferred arrangement for SPREP island members.

The overall structure of the preferred ICS is depicted in Figure Six. The Incident Commander is the ultimate decision-making authority in relation to spill response activities, and should be vested with the necessary decision-making powers. Further details on ICS, including a breakdown of the roles and responsibilities of the various groups, is provided in the SPREP NATPLAN Guidelines.

Figure Five: Incident Command System (ICS) Structure



### **5.3 Secure Human Life, Health and Safety**

The highest priority when a spill has occurred is to take action to ensure that there is no threat to human life, health and safety. This should take precedence over all other actions.

### **5.4 Stem Spill Source**

The second priority action is to attempt to stop the flow of oil (or other pollutant in the case of spills other than oil), in order to minimise the potential size, extent and severity of the spill.

### **5.5 Spill Assessment & Reporting**

Once attempts have been made to stem the flow of oil (or other pollutant), the nature, size, extent, severity and likely movement of the spill should be assessed, and a POLREP completed and transmitted urgently to the Lead Agency and PACREP, in accordance with section 3.2.

Assessment of the spill should include an attempt to classify it as Tier One, Two or Three (refer section 1.3), and determine whether or not PACPLAN should be activated. The assessment of Tier levels may change over time and should be periodically reviewed during the spill.

### **5.6 Spill Surveillance and Forecasting**

It is vital that the likely movement of the spill is assessed, in order to identify possible impact areas and determine the most appropriate response options. Visual observation of any spill is essential and the Lead Agency(ies) under the appropriate NATPLAN(s) should use those resources identified in the NATPLAN(s), such as charter, military, or commercial aircraft, to assess and monitor the movement of the spill. Surveillance resources which are participants of PACPOLPatrol (refer section 3.2) may or may not be available to assist in this regard, advice on this should be sought from SPREP via PACREP.

Meteorological and hydrographic data should be obtained by the Lead Agency(ies) and analysed to obtain predictions of expected spill movement. Local knowledge from people such as fishermen and mariners should be used as a valuable source of expertise on likely spill movement.

In some areas, sophisticated spill trajectory prediction systems may be available, such as computer models. Information on the availability of such systems for various areas can be requested from SPREP non-island members, in accordance with section 6.

### **5.7 Leave Alone and Monitor**

Should surveillance and forecasting indicate that the spill is unlikely to impact on coastlines and is likely to remain in open water, then the best option is to leave the spill alone, allowing natural physical and biological degradation to occur. As outlined in section 1.5, the response to marine spills under PACPLAN should always seek to complement and make use of *natural forces* to the fullest extent possible.

However, it is vital that the movement of the spill is closely monitored, through continuing surveillance and forecasting (as per section 5.6). The next stage of response operations should be activated if even the slightest possibility of coastal impact arises.

## **5.8 Containment & Recovery at Sea**

Should surveillance and forecasting indicate that the spill may impact on coastlines, the possibility of containing and recovering the oil at sea to prevent such impact should be pursued. The techniques and equipment available for containment and recovery at sea should be outlined in the relevant NATPLAN(s) for the county/territory(ies) where the spill has occurred.

The ability to conduct effective containment and recovery operations at sea will be limited by the nature of the spill, available equipment, physical conditions and logistical considerations. In many instances, especially in open water, containment and recovery at sea may not be possible.

## **5.9 Use of Oil Spill Dispersants**

In the event that containment and recovery is not possible, or is only partially effective, another possible option to prevent or minimise the spill from impacting on the coast is to disperse it at sea, using chemical dispersants.

Dispersants can be applied to the spill from vessels or aircraft. The techniques and equipment available for the application of dispersants should be outlined in the relevant NATPLAN(s) for the county/territory(ies) where the spill has occurred.

As with containment and recovery at sea, the effective use of dispersants will be limited by the nature of the spill (including the type of oil and its dispersability), the availability of dispersant stocks and application equipment, physical conditions and logistical considerations. In many instances, effective dispersal of oil at sea may not be possible.

In addition, the inappropriate use of dispersants can cause worse environmental impacts than undispersed oil. Dispersants are pollutants themselves, and their use can temporarily increase the toxicity of the oil, by increasing its surface area to volume ratio and thereby increasing the release of the toxic components of the oil into the marine environment. If used in very shallow water and on shorelines, they can cause the oil to penetrate into sediments, creating potential long-term pollution problems.

The use of dispersants should therefore only occur under strict supervision by competent environmental and scientific authorities (SPREP can provide such advice), and in accordance with the SPREP Guidelines On the Use of Oil Spill Dispersants (available from SPREP and contained in the SPREP NATPLAN Guidelines).

If dispersants are used in accordance with the SPREP Guidelines, they represent a very useful oil spill response tool.

## **5.10 Foreshore Protection**

In most circumstances, despite best efforts to contain and recover and/or disperse a spill at sea, a weather-driven spill is highly likely to impact on coastal environments and resources. Efforts will therefore have to be made to protect foreshores. Options include the use of oil spill booms to physically prevent oil from impacting on the foreshore, or to direct it to preferred collection points (such as a sandy beach), where it can be recovered.

The techniques and equipment available for foreshore protection should be outlined in the relevant NATPLAN(s) for the country/territory(ies) where the spill threatens to impact.

The ability to conduct effective foreshore protection operations will be limited by the nature of the spill, available equipment and personnel, physical conditions and logistical considerations. In virtually every situation, it will only be possible to protect a relatively small area of foreshore. It is therefore absolutely necessary to clearly establish protection priorities, in accordance with the relative environmental sensitivities and resource values of the threatened coastal environments and resources.

The designation of environmental sensitivity gradings requires assessment at a much larger scale than can be provided by a regional plan such as PACPLAN. Individual NATPLANS should designate environmental sensitivities for coastal and marine areas, and foreshore protection operations should give priority to protecting the most valuable/sensitive coastal environments and resources as identified in these environmental sensitivity gradings.

In the event that detailed environmental sensitivity gradings and protection priorities are not available, the following general protection priorities should be used, consistent with section 1.5 of PACPLAN (in order of priority):

- Biological habitat.
- Rare and endangered species.
- Commercial resources.
- Cultural resources.
- Non-commercial property and amenity.

## **5.11 Foreshore Clean-up**

In the likely event that a spill does impact on coastal resources and environments, it may be necessary to conduct foreshore clean-up operations. However, before proceeding with clean-up, the option of leaving the oil (or other pollutant) alone and allowing natural physical and biological degradation to occur, should be considered. This is consistent with section 1.5, whereby the response to marine spills should always seek to complement and make use of *natural forces* to the fullest extent possible. However, this option is only likely to be acceptable in very remote, unpopulated areas or with high-energy wave environments.

The techniques and equipment available for foreshore clean-up should be outlined in the relevant NATPLAN(s) for the country/territory(ies) where the spill has impacted.

An important consideration during foreshore clean-up is to ensure that clean-up operations do not cause greater environmental damage than the spill itself (for example heavy machinery damaging sand-dunes, use of dispersants on foreshores driving oil into the substrate etc).

## **5.12 Oiled Wildlife Operations**

It is highly likely that wildlife will become contaminated in the event of a spill, including sea-birds and shorebirds, marine reptiles (e.g. nesting turtles) and possibly marine mammals.

The techniques and equipment available for rescuing, cleaning and rehabilitating affected wildlife



should be outlined in the relevant NATPLAN(s) for the country/territory(ies) where the spill has impacted. Because of the complexity of such operations, it may be necessary to have a separate oiled wildlife plan as a sub-set of each NATPLAN.

The status of wildlife species as rare, threatened and/or endangered under international biodiversity and species protection conventions and classification systems (e.g. IUCN Red List Categories) should be considered in prioritising oiled wildlife response. SPREP can provide technical advice in this regard. Requests for such assistance should be made in accordance with section 5.

### **5.13 Oily Waste Management**

An often difficult problem created by oiled foreshore clean-up is the generation of quantities of recovered oil and oily waste, which needs to be treated, recycled and/or disposed. The problems of oily waste management are exasperated on small islands such as those of the region, due to severe limits on management options.

Oily waste management arrangements should be outlined in the relevant NATPLAN(s) for the country/territory(ies) where the spill has impacted.

In many circumstances in the Pacific islands region, the best option may be to ship oily waste off the island that has been impacted, to a destination which has the proper waste management facilities. This option may require some form of external assistance. Requests for such assistance should be made to SPREP non-island members, in accordance with section 6.

It should be noted that the trans-boundary movement (i.e. shipment between countries) of waste oil and oily wastes is regulated under both the *Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal* (the Basel Convention) and the *Convention to Ban the Importation into Forum Island Countries of Hazardous and Radioactive Wastes and to Control the Transboundary Movement and Management of Hazardous Wastes within the South Pacific Region* (the Waigani Convention).

Any shipment of waste oil and/or oily waste collected from a spill clean-up should therefore comply with the requirements of these two conventions.

SPREP can provide technical advice in this regard. Requests for such assistance should be made in accordance with section 6.

### **5.14 Joint Response Operations**

The response to some marine spills under PACPLAN may require joint response operations by two or more SPREP island member governments. Such situations include:

- A spill within one jurisdiction which moves or threatens to move into an adjacent jurisdiction(s).
- A spill in international waters which moves or threatens to move into two or more adjacent jurisdictions.

Under these circumstances, the government whose waters are closest to the pollution incident should assume the lead role and be initially responsible for reporting the spill to SPREP using the PACREP/POLREP system. This government should also be responsible for tracking the spill and any necessary initial response.

The Lead Agency should inform neighbouring government(s) and these should activate their own response plans in close coordination with the government which has assumed the lead role.

Any government may escalate the response by calling for assistance from other SPREP island members, non-island members, the oil industry and/or other external parties, in accordance with section 6.

In the event that the spill moves across national sea boundaries, agreement should be reached between the governments concerned for the orderly transfer of the lead role and on-scene coordination function.

In preparation for possible joint operations, neighbouring countries/territories may wish to develop joint marine spill response plans and enter into bilateral or multilateral Memorandums of Understanding (MoU), which, amongst other things, should:

- Clearly define command and liaison structures for joint response operations.
- Outline procedures for cooperative use of vessels, aircraft and spill response equipment.
- Identify agreed protection priorities.
- Provide arrangements for marine operations in, or overflying of, each others' territory.

Surveillance flights to evaluate or assist in the response to marine spills may require the overflight of territorial and internal waters of another government. In order to optimise the use of aerial resources, each government should make advance arrangements with neighbouring governments for the rapid granting of permission for overflights and for the use of their airport facilities. Such arrangements should be included in respective NATPLANS and any applicable joint response plans.

Appendix Five provides a model of an MoU that countries/territories may use as the basis for developing their joint response arrangements.

## 5.15 Chemical Spills/HAZMAT Response

As outlined under section 1.3, PACPLAN is designed to cover the response to spills into the marine environment of all types of pollutants, including oil, chemicals and hazardous materials (HAZMAT).

However, technical details within PACPLAN relate primarily to marine *oil* spills. This reflects the fact that oil is the main pollutant likely to be spilled in the region, and the fact that the discipline of oil spill response is far more developed and advanced than that of chemical spill/HAZMAT response.

In the event of a chemical/HAZMAT spill within the PACPLAN Area, the general procedures and arrangements of PACPLAN should be followed. In addition, the NATPLAN of each SPREP island member, if developed in accordance with the SPREP NATPLAN Guidelines, should cover the response to chemical/HAZMAT spills. The NATPLANS should therefore outline the techniques and equipment available for chemical/HAZMAT spill response in each country/territory.

Should a SPREP island-member where the chemical/HAZMAT spill has occurred require technical advice and assistance with the response, this should be requested from SPREP non-island members, in accordance with section 6.

## 6. EXTERNAL ASSISTANCE

---

### 6.1 Requests for Assistance

Should the Lead Agency within the SPREP island member country/territory assess a spill to be a Tier Three spill (refer sections 1.3 and 6.5), it should complete a Request for Assistance form, as contained in Appendix Four, transmit it via facsimile directly to the party from which it is seeking assistance (refer Appendix One for contact details for assistance providers), and copy it to SPREP via PACREP.

The US Pacific islands (American Samoa, Guam and Northern Marianas), when requesting assistance from the US, should do so in accordance with the US ORCP, and not PACPLAN. The US Pacific islands should use the PACPLAN procedures when requesting assistance from non-US parties.

Whilst requests for assistance should be made directly from the requesting country/territory to the assistance provider, a requesting country/territory may ask SPREP to facilitate the request for assistance.

In requesting assistance, the requesting country/territory should provide as much information as possible about the nature of the spill and be as specific as possible about the type of assistance required. Determination of the most appropriate assistance package should be carried out through discussions/communications between the requesting country/territory and the assistance provider.

Requesting parties must bear in mind that the onus is on the Lead Agency in their country/territory to manage the overall spill response effort, including facilitating the activities of the assistance providers through ensuring customs, immigration, quarantine and logistics arrangements are in place (refer sections 6.2 and 6.3) and providing the command and control elements of the response. If the above responsibilities cannot be met the effectiveness of external assistance will be hampered, and such assistance should not be requested.

Five levels of assistance are available, as outlined below.

#### ***6.1.1 Assistance from a Neighbouring SPREP Island Governments***

In the first instance, SPREP island governments should seek assistance from neighbouring island governments. Such requests for assistance should be made directly between the neighbouring governments, and copied to SPREP through the PACREP system. They should be in accordance with any relevant MoU between the neighbouring governments and any applicable joint response plan(s) that the neighbours may have in place (refer section 5.14).

#### ***6.1.2 Assistance from SPREP Technical Secretariat***

In the event of a marine spill in a SPREP island member country/territory, the SPREP technical secretariat may provide or arrange technical advice in the following areas:

- The availability and application of spill trajectory prediction systems.
- The use of oil spill dispersants, including application of the SPREP Guidelines on the Use of Oil Spill Dispersants.

- Environmental sensitivity gradings and protection priorities.
- Oiled wildlife operations.
- Oily waste management.
- Environmental and scientific matters relating to the spill response in general.

Such advice would generally be provided remotely by SPREP from its office in Samoa. SPREP would be unlikely to be able to provide personnel to physically attend the spill due to limits on personnel numbers and other priority tasks.

In addition to being able to provide technical advice in the above areas, SPREP would also be able to arrange for the provision of technical advice in other, non-environmental areas, including operational disciplines, by other parties, and assist countries and territories in requesting external assistance, in accordance with sections 6.1.3 to 6.1.5 below.

SPREP also has a role in assisting countries with pre-spill planning, through the various PACPOL projects that it has initiated and manages. These include:

- Assisting countries/territories with spill prevention through PACPOL Project MS 1: Review of Spill Prevention Measures.
- Assisting countries/territories to develop NATPLANS through PACPOL Project MS 2: SPREP NATPLAN Guidelines & Template.
- Assisting countries/territories with training and exercises through PACPOL Project MS 3: Annual PACPOL Workshops.
- Assisting countries/territories with spill response equipment through PACPOL Project MS 4: Regional Spill Response Equipment Strategy.
- Assisting countries/territories to identify protection priorities and develop environmental sensitivity gradings through PACPOL Project MS 5: Coastal Resource Mapping.

### **6.1.3 Assistance from SPREP Non-island Governments**

Should the spill be of a magnitude and/or severity that additional assistance is required, SPREP island governments should seek assistance from a non-island government.

Each SPREP non-island member is the *primary source of assistance* for the SPREP island members listed under the primary column in Table Two, and depicted in Figure Seven.

Should a spill be of a size and/or severity that requires external assistance from more than one source, each SPREP non-island member is the *secondary source of assistance* for the SPREP island members listed under the secondary column in Table Two, and depicted in Figure Eight

**Table Two: Primary and Secondary Sources of Assistance - Divisions of Responsibility**

<b>Assistance Provider</b>	<b>Primary source of assistance for:</b>	<b>Secondary source of assistance for:</b>
Australia	Nauru Papua New Guinea	FSM Fiji

France	Solomon Islands Tuvalu Vanuatu Kiribati  French Polynesia New Caledonia Wallis & Futuna	Guam New Caledonia Northern Mariana Islands Palau Tonga Cook Islands Marshall Islands Niue Pitcairn Vanuatu
New Zealand	Cook Islands Fiji Niue Pitcairn Tokelau Tonga	American Samoa Nauru Papua New Guinea Samoa Solomon Islands Wallis & Futuna
USA	American Samoa FSM Guam Marshall Islands Northern Mariana Islands Palau Samoa	French Polynesia Kiribati Tokelau Tuvalu

#### ***6.1.4 Assistance from the Oil Industry***

##### *6.1.4.1 In-Country Industry*

In the first instance, SPREP island governments which require assistance from the oil industry should seek it from the oil companies that operate within its jurisdiction. Such requests for assistance should be made directly between the government and the oil company, and be copied to SPREP through the PACREP system. They should be in accordance with the relevant NATPLAN, which should outline the mechanisms for integration between in-country government and industry capabilities.

In general, the oil industry should be entirely responsible for the physical resourcing of the response to spills from its own facilities, under the command and control of the government Lead Agency. The industry should also provide assistance to government for the response to non-industry spills on a cost-recovery basis, with costs ideally being recovered from the polluter.

##### *6.1.4.2 Australian Marine Oil Spill Centre (AMOSC)*

The Australian Marine Oil Spill Centre Pty Ltd (AMOSC) is an oil spill response cooperative financed by 10 participating Australian oil companies; Ampol, Apache, BHP, BP, Esso, Mobil, Santos, Shell, Wapet and Woodside. Three member companies, BP, Mobil and Shell, are active in the PACPLAN Area..

AMOSC maintains AUD\$10M worth of state-of-the-art Tier Three (i.e. major spill) oil spill response equipment and a small technical staff, on 24 hour call to assist the responses to oil spills throughout Australia. AMOSC represents the Australian oil industry's contribution to the Australian government's overall national oil spill plan.

Access to AMOSC resources is preferentially given to member companies. The fee-paying member companies have a Service Contract that guarantees access to a certain level of equipment and

expertise in an emergency, at a hire-out rate that is substantially less than that charged to non-members. AMOSC gives priority to responding to spills from ships or facilities owned by member companies.

Third parties, such as governments, can gain access to AMOSC resources by signing a Third Party Agreement each time they require access (although AMOSC and the Australian government have a pre-determined Hiring Agreement). Tariffs are substantially higher for third parties, and there is an up-front fee of AUD\$50,000.

AMOSC's area of operation extends into the Pacific, covering much of the PACPLAN Area, although not north of the equator (Figure ). AMOSC's priority mission in the Pacific is to respond to requests for assistance from member oil companies which operate within the Pacific. Under such a scenario, the relevant oil company would request AMOSC's assistance directly, under the industry's own arrangements.

In doing so, both the requesting oil company and AMOSC should keep both the government of the Pacific island country/territory where the spill has occurred and SPREP fully informed of their intentions and activities. It is of utmost importance that any response mounted by the oil industry to a marine spill in the PACPLAN Area is fully integrated with that mounted by the relevant government(s), and that the government Lead Agency retains overall command, control and coordination functions.

In the event of a Tier Three spill from a non-oil industry facility in the PACPLAN Area, AMOSC assistance would only be available as part of an Australian government assistance package, under the Hiring Agreement between the Australian government and AMOSC.

This means that AMOSC support for non-industry spills is only potentially available to those SPREP island member governments which have Australia as their primary and secondary source of assistance (refer section 5.1.3 and Figures Eight & Nine), and would only be triggered by a Request for Assistance to the Australian government (refer section 5.1.3). The inclusion of an AMOSC component in an Australian government assistance package would be at the discretion of the Australian government and AMOSC.

In addition to offering physical oil spill response services, AMOSC also runs a range of training courses, from a practical, operational, first-level responder course through to senior executive awareness courses. AMOSC provides the central training facility for all member oil companies in Australia, with commercial fees being payable for courses. Personnel from oil companies within the PACPLAN Area routinely attend AMOSC training courses. Those that have been trained to date are contained in the Regional Register of Marine Spill Responders held at SPREP. Representatives from government and other third parties can also attend AMOSC courses, on a fee paying basis. The role of AMOSC in spill response training in the PACPLAN Area is covered in section 9.

#### *6.1.4.3 Clean Islands Council (CIC)*

(to be developed after consultations with CIC)

#### *6.1.4.4 East Asia Response Limited (EARL)*

(to be developed after consultations with EARL)

### ***6.1.4 Assistance from Other Parties.***

In addition to the above, Pacific island countries/territories may wish to request assistance from

sources which are not party to PACPLAN. These include, but are not restricted to; the governments of Canada, Japan and the United Kingdom, the European Union, international organisations such as the International Maritime Organisation (IMO), United Nations Environment Programme (UNEP) and the Global Environment Facility (GEF), and international industry groups such as the International Tanker Owners Pollution Federation Ltd (ITOPF).

Normal diplomatic channels should be used by SPREP member governments when requesting assistance from these sources. SPREP itself may be able to facilitate such requests, but would only undertake do so when efforts to secure assistance from parties to PACPLAN are exhausted.

## **6.2 Customs, Immigration & Quarantine**

For the effective provision of external assistance under PACPLAN, it is vital to move equipment, materials and personnel on-site without undue delay or formality. It is therefore essential that each government participating in PACPLAN has in place administrative arrangements to expedite customs, immigration and/or quarantine procedures for equipment and personnel entering or leaving its territory for the purpose of assisting it or another government in responding to a marine spill or the threat thereof.

Details of such arrangements should be included in each country/territory's NATPLAN and promulgated to all governments participating in PACPLAN, and to other parties which may be called upon to assist in the event of a pollution incident. Such details should include the essential customs, immigration and quarantine information which is required by the appropriate national authority to facilitate special arrangements. Ideally, such arrangements should include provisions for the rapid issue or waiving of entry visas as well as the arrangements for temporary importation of spill response equipment and material free of duty and/or import taxes.

## **6.3 Logistics**

In the event of a very large spill, considerable amounts of equipment and expertise may be mobilised on an international scale to assist the country/territory(ies) requesting such assistance.

Before this is done it is imperative that a full evaluation is carried out to ensure that equipment and materials that are appropriate to the particular circumstances of the spill are the ones that are mobilised, and that the necessary logistical support is available locally. Logistical support that may be required locally includes aircraft unloading equipment, transport, cranes, vessels and oil storage facilities. In addition, the party requesting assistance must have in place:

- Pre-agreed arrangements for hire/contracting, payment, and insurance of equipment and personnel.
- A proper system to manage the health and safety of personnel sent to the affected country.
- Proper accommodation and hospitality services for personnel sent to the affected country.
- Proper equipment maintenance and decontamination facilities and systems, so that equipment is returned ready for future use.

Requesting parties must bear in mind that the onus is on the Lead Agency in their country/territory to manage the overall spill response effort, including facilitating the activities of the assistance providers and providing the command and control elements of the response.

## **6.4 Finances**

### ***6.4.1 Funding of Spill Responses - National Marine Pollution Funds (NATFUNDS)***

It is recognised that many of the governments in the PACPLAN Area have inadequate resources, including financial reserves, to deal with major oil spills. From the moment a spill response commences, the ability to incur expenditure is required, or the Lead Agency will be unable to undertake essential operations such as the mobilisation of aircraft and vessels.

For spills from oil industry facilities, such expenditure will be covered directly by the relevant oil company. For spills from non-oil industry facilities, the government Lead Agency must be able to incur expenditure.

To counter the problem of lack of financial reserves and delegation to incur expenditure, the Regional Model Marine Pollution Legislation promulgated by SPREP and SPC includes provision for the collection of a pollution levy from shipping calling at a country/territory's ports.

Under the regional model legislation, the proceeds from this levy are deposited into a trust fund (National Marine Pollution Fund or NATFUND), and reserved exclusively for use in marine spill response. The NATFUND is administered by a board of trustees, comprising as a minimum a representative from the government Lead Agency, the oil industry and the shipping industry. Any expenditure from the NATFUND requires approval from the board of trustees, with administrative arrangements which allow rapid approval in the event of a genuine pollution emergency.

The legislation also provides for a cap on the fund, which is set according to the pollution risk and the acceptance that the NATFUND is only intended to underwrite the initial phases of a spill response. The relatively low volume of shipping in Pacific island countries/territories and the need to minimise the cost-imposition on the shipping and oil industries from the marine pollution levy, dictate that individual NATFUNDS are highly unlikely to be capable of covering the full costs of a spill response.

The above arrangements are not available if a Pacific island country/territory's marine pollution legislation does not include the marine pollution levy/NATFUND provisions promulgated by the SPREP/SPC regional model legislation. It is the responsibility of individual governments to ensure that mechanisms are in place to financially enable the initial operations required to respond to a marine spill. The NATFUND arrangements promulgated by SPREP and SPC provide a useful model for adoption by countries/territories.

### ***6.4.2 Funding External Assistance - Cost Recovery & Reimbursement***

Once initial response operations are financially enabled by the NATFUND (or other financial mechanism as established in a country/territory), financial underwriting of any subsequent external assistance should be provided by the assistance provider, with full cost recovery processed once response operations are completed.

The reimbursement of costs for external assistance is dealt with in the OPRC Convention, with the basic principle being that the requesting country/territory and the assistance provider will co-operate in attempting full cost recovery from the polluter, under existing legal regimes (such as the 1992 Civil Liability Convention and the 1992 Fund Convention).

Where legal action does not result in full compensation for expenses incurred in the assistance



operation, the requesting country/territory may ask the assistance provider to waive reimbursement of expenses which exceed the amount recovered from the polluter. In such cases, the OPRC Convention requires assistance providers to give due consideration to the needs of developing countries.

To assist in the recovery of costs, each government shall maintain individual records of action taken and equipment and other resources used, including detailed and complete records of all costs incurred. These records can be utilised both to support cost recovery, claims for compensation and for subsequent analysis of actions taken during the pollution incident, in order to upgrade PACPLAN.

### ***6.4.3 Maintenance of PACPLAN***

Whilst SPREP is responsible for maintaining PACPLAN and associated systems, resources will need to be made available to SPREP to carry out these functions. The main requirement is a percentage of PACPOL staff time (Marine Pollution Adviser and Marine Pollution Project Officer) to:

- Update and re-issue the plan form time to time.
- Maintain the Regional Register of Marine Spill Responders (refer section 9.4).
- Manage any POLREPs that come into the PACREP system.
- Facilitate any requests for assistance as they arise.
- Organise the annual PACPOL workshops, including the annual PACPLAN exercise.

It is estimated that 15% of each of the two officers time is required to fulfil these roles, and US\$50K is required each year for the annual PACPOL workshops.

Funding is available for the two PACPOL staff positions until the end of 1999 for the Adviser and mid 2002 for the Project Officer. Resourcing will need to be secured thereafter. Funding for the annual PACPOL workshops is secured for 1999 and 2000, and needs to be secured thereafter.

In addition, approximately 10% of the time of a SPREP Administrative assistant and the GIS/Database Officer will be required to enter incoming POLREPs into the PACREP database and SPREP Geographic Information System (GIS), on an ongoing basis.

As PACPLAN is focussed on implementing the Pollution Protocol of the SPREP Convention, ongoing resourcing for the above activities should be contributed to my member countries, through the existing annual voluntary member contributions, amended accordingly.

# 7. RESPONSE TERMINATION & POST-SPILL ACTIVITIES

---

## 7.1 Response Termination

In any marine spill response operation, a point is reached where the cost and effort involved in continuing clean-up operations outweigh the benefits to be gained. The OSC, in consultation with advisers and the National Committee, should determine the point when further effort and expenditure become unreasonable and can no longer be supported on grounds of environmental effectiveness and cost. The advice of scientific/environmental expertise, including any provided through external assistance, will be of paramount importance in determining when the environmental effectiveness of continued spill clean-up efforts do not justify continued expenditure.

Once a decision to terminate a spill response is made, it should be communicated to all affected/interested parties and also to SPREP through PACREP.

## 7.2 Equipment Cleaning/Restoration and Return

Oiled equipment should be cleaned as soon as possible after use. Cleaning should be carried out in a controlled situation where run-off can be contained without causing further pollution.

Equipment cleaning methods include:

- High pressure hosing.
- Steam cleaning (do not use on booms made of PVC, or plasticity of the boom will be lost).
- Apply dispersants and brush (especially heavily oiled booms).
- Flushing pumps that have been used to apply dispersants with fresh-water, immediately after use.

All oil collected from cleaning operations must be disposed of in accordance with the oily waste management procedures outlined in the relevant NATPLAN (refer section 5.13).

Once cleaning is completed, all equipment that has been provided through external assistance should be inspected and checked-off, and arrangements made in consultation with the assistance provider for returning/replacing the equipment.

## 7.3 Response Evaluation & Debriefing

As soon as possible after termination of clean-up, a full de-brief session should be held, as outlined in section 3.5. The aim of the debrief session is not to assess the performance of individuals, but to evaluate the response and to translate any lessons learned into improvements to the relevant NATPLAN and PACPLAN, so as to improve the effectiveness of any future spill responses.

## 7.4 Damage Assessment & Monitoring

Following a marine spill it is necessary to conduct post-spill damage assessment and monitoring activities, in order to scientifically and quantitatively assess:

- Ecological damage.
- Impacts on commercial resources and activities such as fisheries, aquaculture and tourism.

It will also provide a baseline against which to measure recovery from the spill.

The information gathered will assist with:

- Determination of compensation claims.
- Better understanding of the effects of spills and the ability of the environment to recover from such effects.
- Better understanding of the effects and effectiveness of the various clean-up techniques used.
- Identification of any necessary ongoing restoration and rehabilitation requirements for damaged environments and resources.

Post-spill damage assessment and monitoring plans should be contained in each country/territory's NATPLAN. Responsibility for such plans should generally rest with the government environment agency, who provides the Environment Co-ordinator on the spill response team. The following general principles should apply to post-spill damage assessment and monitoring.

- The Environment Co-ordinator should organise joint government/industry monitoring teams, to undertake coordinated, integrated studies. This will avoid duplication of effort and the possibility of conflicting results that may be used for compensation claims.
- Assessment and monitoring should aim to be as quantitative as possible, and the basis of any qualitative assessments stated.
- Monitoring must be designed so as to be statistically valid and rigorous, with the levels of confidence clearly stated.
- Data collection should commence as soon as possible after the spill.
- The use of sound pre-spill baseline data is essential to the success of post-spill damage assessment and monitoring. The Environment Co-ordinator should rapidly identify all such data, including that held by government environment and fisheries agencies, universities and research institutions.
- The monitoring design should include the identification and monitoring of control sites.
- The monitoring design should include areas impacted by the spill, areas disturbed by clean-up activities and areas used for the storage of oily waste.
- All organisations involved in post-spill damage assessment and monitoring should keep detailed records of all costs and expenses associated with these activities.
- The results obtained should be published in the scientific literature, to assist the development of the spill response discipline in general.

SPREP can provide or arrange for technical advice and assistance in the area of post-spill damage assessment and monitoring. Requests for such assistance should be directed to SPREP through the PACREP system.

## 7.5 Environmental Restoration & Rehabilitation

Following a spill, it may be necessary to undertake activities to restore and rehabilitate damaged ecosystems and resources, for example replanting mangroves killed by a spill, rehabilitating beaches damaged by clean-up activities or transplanting coral to a high-use tourist area impacted by a spill.

Post-spill restoration & rehabilitation plans should be contained in each country/territory's NATPLAN. Responsibility for such plans should generally rest with the government environment agency, who provides the Environment Co-ordinator on the spill response team. The following general principles should apply to post-spill restoration & rehabilitation.

- Areas requiring restoration and rehabilitation should be identified during post spill damage assessment (refer section 7.4).
- In determining the best options for the restoration and rehabilitation, techniques that seek to complement and make use of *natural forces* to the fullest extent possible should be selected, including the option of allowing natural recovery without active intervention.
- The effects and effectiveness of restoration and rehabilitation efforts should be assessed through rigorous monitoring, as part of post-spill damage assessment and monitoring activities (refer section 7.4).
- All organisations involved in restoration and rehabilitation should keep detailed records of all costs and expenses associated with these activities.
- The results obtained should be published in the scientific literature, to assist the development of the spill response discipline in general.

SPREP can provide or arrange for technical advice and assistance in the area of post-spill restoration and rehabilitation. Requests for such assistance should be directed to SPREP through the PACREP system.

# 8. EQUIPMENT

---

## 8.1 National Resources

Effective marine spill response cannot be carried out unless appropriate equipment is available.

Each Pacific island country and territory should establish and maintain a national marine spill response equipment inventory capable of dealing with Tier Two spills, as defined in section 1.3. This inventory and procedures to access it should be contained in each country/territory's NATPLAN.

The national equipment inventory should be a joint government/industry arrangement, with both parties contributing and having access to the equipment. In general, the oil industry should provide the equipment necessary to respond to Tier One spills from its facilities, and government should provide the balance of the stockpile necessary to bring the capability up to Tier Two level.

In determining equipment needs, the oil industry and government should work closely together to ensure compatibility and inter-operability, and that the equipment procured is the most appropriate for the level of spill risk and local conditions.

The high capital cost and significant maintenance requirements of spill response equipment mean that regionally appropriate technology and local resources should constitute as much of the equipment inventory as possible.

In order to assist each Pacific island country and territory to establish the optimum equipment inventory for its situation, PACPOL includes a project to review current equipment levels in each country/territory and identify the procurements necessary to fill current deficiencies, through PACPOL Project MS 4: Regional Spill Response Equipment Strategy. Once the review is completed this project will seek to secure sources of support to procure the necessary equipment, plus provide training in its use and long-term maintenance. This section of PACPLAN will be updated as this project proceeds.

## 8.2 Regional Resources

There is no proposal under PACPLAN to establish a regional stockpile of equipment, as it is felt that this would simply duplicate what is already available through external assistance.

The most significant stockpiles of marine spill response equipment held within the region are:

- American Samoa (USCG and oil industry/contractor)
- Guam (USCG and oil industry/contractor)
- New Caledonia (French Navy).

Access to this equipment is via the Request for Assistance procedures in section 6.

The most significant stockpiles of equipment adjacent to the region are:

- Auckland (New Zealand National Plan resources).

- Brisbane, Sydney & Townsville (Australian National Plan resources)
- Geelong (AMOSC)
- Hawaii (USCG and CIC/contractors)
- San Francisco (USCG Pacific Strike Team)
- Singapore (EARL)

Access to this equipment is via the Request for Assistance procedures in section 6.

# 9. TRAINING & EXERCISES

---

## 9.1 Annual PACPOL Workshops

Marine spill response plans such as PACPLAN are only effective if relevant personnel receive adequate training and if the plan is exercised and reviewed on a regular basis.

The primary regional training activity for PACPLAN will be PACPOL Project MS 3: Annual PACPOL Workshops. These workshops are organised by SPREP and have three components:

- A four day training course in marine spill response.
- A one day desk top exercise of a regional response to a major spill under PACPLAN.
- A half day PACPOL coordination meeting.

The four day training course is based on the IMO level 2 model course and is designed to target middle-management personnel from government environmental and maritime administrations and the oil industry in Pacific island countries/territories, who play key roles in the response to marine spills within their respective countries/territories.

The workshops are designed to provide a general but reasonably detailed overview of all aspects of the response to marine spills, and provide the participants with the knowledge and skills necessary to develop effective marine spill response arrangements within their countries/territories. They are rotated throughout the region each year.

## 9.2 Specialist Training Courses

Due to limits on resources and limits on the capacity of small island countries to absorb multiple training activities, it is not proposed to provide detailed training in specialist areas (e.g. first level responder, environmental and scientific support coordinator etc), under PACPOL.

It is considered to be more cost-effective to instead take advantage of the numerous specialist spill training activities that are already offered in countries adjacent to the region (e.g. Australia/AMOSC, New Zealand, USA), by sending Pacific islands delegates to these specialist courses on an opportunistic and needs basis, rather than to duplicate these courses within the region.

The regional oil industry should continue with in-country training of its personnel at its oil terminals and depots and also continue to send personnel to training courses at AMOSC in Australia, as an important contribution to regional training.

This combination of an annual regional workshop with attendance at specialist courses in countries adjacent to the region should provide the optimum level of marine spill training for the region, within the limits of available resources.

## 9.3 In-Country Exercises

Under each country/territory's NATPLAN, a national marine spill response exercise should be held in each country/territory on an annual basis. Such exercises should be joint government/oil industry activities and seek to further develop government/industry integration. Whilst responsibility for organising these in-country exercises rests with each National Committee, SPREP can provide technical advice and assistance.

## **9.4 Regional Register of Marine Spill Responders**

As part of its role under PACPLAN, SPREP has established a Regional Register of Marine Spill Responders. This database includes details of all regional government and oil industry personnel who have attended the annual SPREP workshops, plus those who have attended specialist training courses such as those offered by AMOSC. It will allow tracking of training recipients, ensuring optimum selection of participants for future workshops and training. It will also provide a list of personnel who could assist with actual spill responses.

In order to assist SPREP with ensuring that the database is complete and up-to-date, the Lead Agency in each country/territory and AMOSC should submit to SPREP annual lists of personnel who have received training other than the annual SPREP workshop, including the details of the training received. Over time, personnel on this database could be organised to form a Regional Marine Spill Response Team.



# 10. ADOPTION, CONTROL & REVISION OF THE PLAN

---

## 10.1 Adoption of the Plan

PACPLAN will be adopted by consensus at an intergovernmental meeting of the South Pacific Regional Environment Programme (SPREP) and contracting parties to the SPREP Convention, with such adoption requiring written endorsement from the three major oil companies which operate within the PACPLAN Area (BP, Mobil and Shell).

## 10.2 Control of the Plan

Full contact details for all holders of controlled copies of PACPLAN are maintained on a register at the SPREP office in Apia, Samoa, in order to facilitate revisions and updating.

## 10.3 Revision of the Plan

The main body of PACPLAN may only be revised by agreement of an intergovernmental meeting of SPREP and contracting parties to the SPREP Convention, with written endorsement for such revision from the three major oil companies which operate within the PACPLAN Area (BP, Mobil and Shell).

Proposed revisions to the main body of PACPLAN may be submitted by any party to the plan to the SPREP technical secretariat for circulation to other parties for consideration. In order to be considered for adoption at an intergovernmental meeting of SPREP, any proposed revision to the plan must be circulated at least 90 days prior to such a meeting.

Technical information contained in informational appendices, such as contact details, will be revised and updated regularly, and new informational appendices added as required, by the SPREP technical secretariat without the need for agreement by an intergovernmental meeting of SPREP. Such revisions and updates will be circulated by the SPREP technical secretariat to all registered holders of controlled copies of the plan.

The accuracy of technical information contained in informational appendices which relates to individual parties to the plan, is the responsibility of each party to the plan. All parties to the plan should report to the SPREP technical secretariat, any changes in circumstances, including levels of risk of marine spills, capability to manage marine spills, internal administrative arrangements and contact details, that may require revision and updating of the plan. The SPREP technical secretariat will then be responsible for circulating such updates to all registered holders of controlled copies of the plan.

# FIGURES

---

**Figure One: The Pacific Islands Region/PACPLAN Area**

(to be added - map of region showing 200nm EEZs)

**Figure Five: Transit shipping lanes in the PACPLAN Area.**

(NB: It should be noted that the routes depicted in Figure Five relate to transit shipping only. They do not include the routes followed by international shipping trading to and from the PACPLAN Area, and regional and domestic shipping within the Area. These routes have not yet been accurately mapped. They further compound the spill risk scenario within the region).

(To be added)

**Figure Seven: Primary assistance groupings for each Pacific island country/territory and SPREP non-island member.**

(to be added)

**Figure Eight: Secondary assistance groupings for each Pacific island country/territory and SPREP non-island member.**

(to be added)

**Figure Nine: Area Serviced by AMOSC**

(to be added)

# APPENDICES

---



## Appendix One: PACPLAN Marine Spill Response Contacts

**Table One: SPREP Technical Secretariat**

<p><b>SPREP Technical Secretariat</b>          Marine Pollution Adviser          South Pacific Regional Environment Programme          PO Box 240, Apia, SAMOA          Ph (685) 21929          Fax (685) 20231          Email <a href="mailto:sprep@sprep.org.ws">sprep@sprep.org.ws</a></p> <p>Please transmit all POLREPs to fax (685) 20231 for entry into the PACREP database.</p>
---

**Table Two. Lead Agency (Maritime Administration), Environment Administration and SPREP National Focal Point for each SPREP Member Country/Territory.**

(The preferred Lead Agency for assuming command of marine spill response in each country/territory is the national maritime administration. The maritime administration should be supported in this role by a National Marine Pollution Committee, chaired by the Lead Agency and containing, as a minimum, the national environment administration, the national fisheries/marine resources administration, the national disaster management administration and the local oil industry).

Country/Territory	1. LEAD AGENCY (Maritime Administration)	2. Environment Administration	3. SPREP National Focal Point
Cook Is	Director of Marine Ministry of Tourism & Transport PO Box 61, Rarotonga Ph (682) 28810 Fax (682) 28816	Director Environmental Services Ministry of Works, Energy & Physical Planning PO Box 371, Rarotonga Ph (682) 21256 Fax(682) 22256 <a href="mailto:Resources@environment.org.ck">Resources@environment.org.ck</a>	Secretary Ministry of Foreign Affairs and Immigration PO Box 105, Rarotonga Ph (682) 29347 Fax (682) 212 47 <a href="mailto:secfa@foraffairs.gov.ck">secfa@foraffairs.gov.ck</a>
FSM	Secretary Department of Transportation, Communication and Infrastructure PO Box PS2, Palikir, Pohnpei Ph (691) 320 2865 Fax (691) 320 5853 <a href="mailto:transfm@mail.fm">transfm@mail.fm</a>	Secretary Department of Economic Affairs PO Box PS 70, Palikir, Pohnpei Ph (691) 320 2646 Fax (691) 320 5854	Secretary Department of Foreign Affairs PO Box PS 123, Palikir, Pohnpei Ph (691) 320 2613 Fax (691) 320 2933
Fiji	Director Marine Department PO Box 326, Suva Ph (679) 315 266 Fax (679) 303 348	Director Department of Environment. Ministry of Urban Development, Housing & Environment. PO Box 2131, Suva Ph (679) 211 545 Fax (679) 303 515	Permanent Secretary Ministry of Urban Development, Housing & Environment. PO Box 2131, Suva Ph (679) 211 416 Fax (679) 303 515
Kiribati	Director of Marine Ministry of Information, Communication & Transport Beitio, Tarawa Ph (686) 26003 Fax (686) 26572	Permanent Secretary Ministry of Environment & Social Development PO Box 234, Bikenibeu, Tarawa Ph (686) 28211 Fax (686) 28334 <a href="mailto:mesd2@tskl.net.ki">mesd2@tskl.net.ki</a>	Permanent Secretary Ministry of Foreign Affairs PO Box 68, Bairiki, Tarawa Ph (686) 21342 Fax (686) 21466
Marshalls	Contact via 2.	General Manager Environmental Protection Agency PO Box 1322, Majuro Ph (692) 625 3035 Fax (692) 625 5202	As per 2.
Nauru	Contact via 3.	Contact via 3.	Secretary Department of External Affairs Republic of Nauru Ph (674) 444 3100 Fax (674) 444 3105

**Table Two continued.**

Country/Territory	1. LEAD AGENCY (Maritime Administration)	2. Environment Administration	3. SPREP National Focal Point
Niue	Director Public Works Department Alofi Ph (683) 4193 Fax (683) 4223 Email mechpwd@mail.gov.nu	Director Community Affairs Office PO Box 77, Alofi Ph (683) 4019 Fax (683) 4391 takaimoiu@mail.gov.nu	Secretary to Government Premier's Department PO Box 40, Alofi Ph (683) 4200 Fax (683) 4232 external@mail.gov.nu
Palau	Chief Division of Transportation Ministry of Commerce and Trade PO Box 1471, Koror Ph (680) 488 2559 Fax (680) 488 5129	Executive Officer Environmental Quality Protection Board PO Box 100, Koror Ph (680) 488 1630 Fax (680) 488 2963 eqpb@belau.com	Minister of State Office of the Minister PO Box 100, Koror Ph (680) 488 2509 Fax (680) 488 2443
PNG	Secretary Maritime Division Department of Transport & Civil Aviation PO Box 1489, Port Moresby Ph (675) 321 1866 Fax (675) 321 4968	Secretary Department of Environment & Conservation PO Box 6601, Boroko Ph (675) 325 0180 Fax (675) 325 0182	As per 2.
Samoa	Secretary Ministry of Transport PO Box 1607, Apia Ph (685) 22744 Fax (685) 25206	Director Department of Lands, Survey and Environment Private Mail Bag, Apia Ph (685) 25019 Fax (685) 23176	Secretary Ministry of Foreign Affairs PO Box L1859, Apia Ph (685) 63333 Fax (685) 21504 mfa@samoa.net
Solomons	Marine Department Ministry of Transport, Works and Aviation PO Box G32, Honiara Ph (677) 24942 Fax (677) 23798	Chief Environment & Conservation Officer Environment & Conservation Division Ministry of Forests, Environment & Conservation PO Box G24, Honiara Ph (677) 21521 Fax (677) 21245	As per 2.
Tonga	Secretary Ministry of Marine & Ports PO Box 144, Nukualofa Ph (676) 23168 Fax (676) 24267 Email marports@kalia.to	Secretary Ministry of Lands, Survey & Natural Resources PO Box 5, Nukualofa Ph (676) 23210 Fax (676) 23216	As per 2.
Tuvalu	Director Marine & Port Services Ministry of Works, Energy and Communications Vaiaku, Funafuti Ph (688) 20725 Fax (688) 20790	Secretary Ministry of Natural Resources & Environment Private Mail Bag, Funafuti Ph (688) 20102 Fax (688) 20113	Secretary to Government Office of the Prime Minister Private Mail Bag, Funafuti Ph (688) 20801 Fax (688) 20819
Vanuatu	Commissioner of Maritime Affairs Vanuatu Maritime Authority PO Box 45, Port Vila Ph (678) 23410 Fax (678) 23405	Head- Environment Unit Ministry of Lands and Natural Resources Private Mail Bag 063, Port Vila Ph (678) 25302 Fax (678) 23565 Email environment@vanuatu.gov.vu	Director-General Ministry of Lands and Natural Resources Private Mail Bag 007, Port Vila Ph (678) 25302 Fax (678) 25165
American Samoa	Supervisor U.S. Coast Guard Marine Safety Detachment P.O. Box 249, Pago Pago, 96799 Ph (684) 633-2299 Fax (684) 633-1933	Director American Samoa Environmental Protection Agency Office of the Governor Pago Pago Ph (684) 633 2304 Fax (684) 633 5801	As per 2.

**Table Two continued.**

<b>Country/Territory</b>	<b>1. LEAD AGENCY (Maritime Administration)</b>	<b>2. Environment Administration</b>	<b>3. SPREP National Focal Point</b>
French Polynesia	Principal Commissioner Marine Nationale (French Navy) Sectuer Postale 91325 00204 Armees, Tahiti Ph (689) 465 587 Fax (689) 465 056	Charge Delegation a l'Environment BP 4562, Papeete, Tahiti Ph (689) 432409 Fax (689) 419252 delenv@mail.pf	Special Adviser for Foreign Affairs Department of External Relations BP 2551 Papeete, Tahiti Ph (689) 5347 28 Fax (689) 432011
Guam	Commanding Officer U.S. Coast Guard Marine Safety Office Guam PSC 455, Box 176 FPO, AP 96540-1056 Ph (671) 339-2001 Fax (671) 339-2005	National SPREP Representative Guam Environmental Protection Agency 15-6101 Mariner Ave, Tiyan, Barrigada Ph (671) 472 8863 Fax (671) 477 9402	As per 2.
New Caledonia	Director Department of Merchant Marine & Marine Fisheries Boite Postale 36 98845 Noumea Ph (687) 272 626 Fax (687) 287 286	Contact via 3.	SPREP Correspondant Government Delegate for New Caledonia and Wallis/Futuna French High Commission BP M2 Noumea Ph (687) 272822 Fax (687) 272 828
Northern Marianas	Supervisor U.S. Coast Guard Marine Safety Detachment Emergency Operations Center Capitol Hill Saipan MP 96950-5000 Ph (670) 233-9495 Fax (670) 233-9493	Director Division of Environmental Quality P O Box 13.4 Saipan MP 96950 Ph (670) 664 8500 Fax (670) 664 8540 deq.director@saipan.com	SPREP Contact Caller Box 1007 Saipan MP 96950 Ph (670) 664 2200 Fax (670) 664 2211
Pitcairn	N/a	N/a	First Secretary (Press & Public Affairs) British High Commission PO Box 1812, Wellington New Zealand Ph (64) 4 4726 049 Fax (64) 4 711 974
Tokelau	Contact via 2.	Director Department of Natural Resources & Environment Atafu, Tokelau Ph (690) 21227 Fax (690) 2108	As per 2.
Wallis & Futuna	Contact via 3.	Contact via 3.	Prefect (SPREP Correspondent) Chief Territorial Administrator Mata-utu Ph (681) 722 952 Fax (681) 72 324
Australia	Executive Manager International Relations Australian Maritime Safety Authority GPO Box 2181 Canberra City ACT 2601 Ph (61) 2 6279 5614 Fax (61) 2 6279 5009 michael.julian@amsa.gov.au	Director International Unit Department of the Environment and Heritage Level 5, NCC House 16 Moore St, Canberra Ph (61) 6 6274 1388 Fax (61) 6 6274 1858 richard.bomford@ea.gov.au	High Commissioner Australian High Commission Apia, Samoa Ph (685) 23411 Fax (685) 23159 o'callaghan@daft.gov.au
France	Contact via 3.	Contact via 3.	Deputy Permanent Representative French Delegation to the Pacific Community BP 8043, Noumea, New Caledonia Ph (687) 261 603 Fax (687) 261 266 jpgaltier@spc.org.nc

**Table Two continued.**

<b>Country/Territory</b>	<b>1. LEAD AGENCY (Maritime Administration)</b>	<b>2. Environment Administration</b>	<b>3. SPREP National Focal Point</b>
New Zealand	Divisional Manager Marine Environment Protection Maritime Safety Authority of New Zealand PO Box 27006, Wellington Ph (64) 4 473 0111 Fax (64) 4 473 1245 mike.patrick@msa.govt.nz	Secretary Ministry for Environment PO Box 10362, Wellington Ph (64) 4 473 4990 Fax (64) 4 471 0195 rmo@mfe.govt.nz	High Commissioner New Zealand High Commission Beach Road, Apia, Samoa. Ph (685) 21711 Fax (685) 20086
USA	Chief Marine Safety Division District 14 US Coast Guard 300 Ala Moana Blvd Honolulu HI 66950 Ph (1) 808 541 2114 Fax (1) 808 541 2116 trice@d14uscg.mil	Manager Pacific Insular Area Programs United States Environmental Protection Agency 75 Hawthorne Street (CMD-5) San Francisco CA 94105 Ph (1) 415 744 1559 Fax (1) 415 744 1604 lovelace.norm@epamail.epa.gov	Science Affairs Officer OES/OA/MLP, Room 5805 Department of State 2201 C Street NW Washington DC 20520 Ph (1) 202 647 3883 Fax (1) 202 647 9099 AlcantaraRR@state.gov

**Table Three: Oil Industry**

<b>Australian Marine Oil Spill Centre (AMOSC)</b>	<b>Clean Islands Council (CIC)</b>	<b>East Asia Response limited (EARL)</b>
Manager Australian Marine Oil Spill Centre PO Box 305, North Shore Geelong, Victoria 3214 Australia Ph (61) 3 5272 1555 Fax (61) 3 5272 1839 24 hour emergency pager (61) 016 379 326 amosc@amosc.com.au www.aip.com.au/amosc	(to be added)	Chief Executive Officer East Asia Response Limited Regional Centre 2 Jalan Samulun Singapore 2262 Ph (65) 266 1566 Fax (65) 266 2312 admin@earl.com.sg

## **Appendix Two: Standard Pollution Report (POLREP) Form**

(This standard form is available in electronic format from SPREP if required)

**PACPLAN**  
**Pacific Islands Regional Marine Spill Contingency Plan**

---

**Pollution Report (POLREP)**

---

Should you observe or receive a report of a marine pollution incident, please:

- 1. complete this POLREP in as much detail as possible,*
- 2. fax it immediately to the Lead Agency for marine pollution where the incident has occurred.*  
(see PACPLAN for contact details of national Lead Agencies)
- 3. please also fax it to SPREP at + (685) 20231.*

---

Name/contacts of person completing this report: \_\_\_\_\_

Date/time of report: \_\_\_\_\_ Date/time of incident: \_\_\_\_\_

Location of incident: Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_

Description of location (e.g. name, distance and bearing to nearest landmark): \_\_\_\_\_

Nature and source of incident (indicate which of the following, identify vessels/specific source where possible):

- Vessel aground/collision and leaking oil: \_\_\_\_\_
- Vessel underway and discharging/leaking oil: \_\_\_\_\_
- Vessel at anchor/moored/berthed and discharging/leaking oil: \_\_\_\_\_
- Land-based source: \_\_\_\_\_
- Oil slick with no definite source: \_\_\_\_\_
- Other (please describe): \_\_\_\_\_

Visual appearance and extent of pollution (estimate area and quantity if possible): \_\_\_\_\_

Direction and rate of drift of pollution: \_\_\_\_\_

Wind speed & direction: \_\_\_\_\_ Sea state: \_\_\_\_\_ Tide: \_\_\_\_\_

Identity & position of vessels in the vicinity: \_\_\_\_\_

Photographs taken?: \_\_\_\_\_ Samples taken?: \_\_\_\_\_ Other action taken?: \_\_\_\_\_

**Please submit this POLREP immediately!**  
**(Attach additional information if required)**

**Appendix Three: Standard Situation Report (SITREP) Form**

(This standard form is available in electronic format from SPREP if required)

**PACPLAN**  
**Pacific Islands Regional Marine Spill Contingency Plan**

---

**Situation Report (SITREP)**

---

As the response to a marine pollution incident progresses, please:

- 1. complete these SITREPs on a regular basis,*
- 2. fax them to affected/involved/interested parties*
- 3. please also fax them to SPREP at + (685) 20231.*

---

SITREP No. \_\_\_\_\_ Name/contacts of person completing this report: \_\_\_\_\_

Date/time of SITREP: \_\_\_\_\_ Date/time of incident: \_\_\_\_\_

Location of incident: Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_

Description of location (e.g. name, distance and bearing to nearest landmark): \_\_\_\_\_

Nature and source of incident (indicate which of the following, identify vessels/specific source where possible):

- Vessel aground/collision and leaking oil: \_\_\_\_\_
- Vessel underway and discharging/leaking oil: \_\_\_\_\_
- Vessel at anchor/moored/berthed and discharging/leaking oil: \_\_\_\_\_
- Land-based source: \_\_\_\_\_
- Oil slick with no definite source: \_\_\_\_\_
- Other (please describe): \_\_\_\_\_

Visual appearance and extent of pollution (estimate area and quantity if possible): \_\_\_\_\_

Direction and rate of drift of pollution: \_\_\_\_\_

Wind speed & direction: \_\_\_\_\_ Sea state: \_\_\_\_\_ Tide: \_\_\_\_\_

Events since POLREP/last SITREP: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**(Attach additional information if required)**



**Appendix Four: Standard Request for Assistance Form**

(This standard form is available in electronic format from SPREP if required)

**PACPLAN**  
**Pacific Islands Regional Marine Spill Contingency Plan**

---

**REQUEST for ASSISTANCE**

---

Requesting Country/Territory: \_\_\_\_\_

Lead Agency: \_\_\_\_\_

Contact person: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_ Email: \_\_\_\_\_

Request to: \_\_\_\_\_ Fax: \_\_\_\_\_

Nature of Pollution Incident: \_\_\_\_\_

Type of pollutant spilled: \_\_\_\_\_ Quantity: \_\_\_\_\_

Location of spill (Latitude & Longitude): \_\_\_\_\_

Source of spill: \_\_\_\_\_

Environmental impacts (actual and threatened): \_\_\_\_\_

Action taken to date: \_\_\_\_\_

Assistance Required: \_\_\_\_\_

Technical Advice?  If yes, in what areas? \_\_\_\_\_

Personnel?:  If yes, what areas of expertise?: \_\_\_\_\_

Equipment?:  If yes, what types and for what purpose?: \_\_\_\_\_

Are customs, immigration and quarantine procedures cleared for incoming personnel and equipment?

Details: \_\_\_\_\_

Are logistics, including transport and accommodation, in place for incoming personnel and equipment?

Details: \_\_\_\_\_

(Attach additional information if required)

**Appendix Five: Model Memorandum of Understanding for Bilateral Cooperation**

(This model MoU is available in electronic format from SPREP if required)

**Memorandum of Understanding (MoU) Between**  
*(Lead Agency for Government of            ) and (Lead Agency for Government of            )*  
**on**  
**Marine Spill Preparedness and Response**

1. In accordance with the provisions of the International Convention on Oil Pollution Preparedness, Response and Co-operation 1990 (OPRC 90), and the Protocol Concerning Co-operation in Combating Pollution Emergencies in the South Pacific Region (SPREP Pollution Protocol), *(insert name of Lead Agency)* and *(insert name of Lead Agency)*, which are the national Lead Agencies responsible for the overall command and control of the response to marine pollution incidents in *(country/territory)* and *(country/territory)* respectively, hereby place on record their intention to co-operate on marine spill preparedness and response.
2. In the event of a marine pollution incident, each national Lead Agency can request assistance from the other party. The requesting party shall be the sole judge of the need for such assistance.
3. Requests for assistance will be directed through *(channels to be agreed and details inserted)*.
4. The parties will keep each other advised of the designations of officers authorised to request assistance under his MoU.
5. Subject to availability of relevant resources under their direct control, each party undertakes to provide equipment, materials and personnel for the purpose of assisting the response to a marine pollution incident. Equipment, materials and personnel not under the direct control of a party, for example those under the control of the oil industry, may also be made available following a special approach for those resources by the party receiving the request.
6. When requesting equipment, the requesting party will itemise the equipment by referencing the type, name, size etc from the national equipment inventory lists as provided from time to time.
7. Reimbursement of costs of assistance will be determined in accordance with the provisions of OPRC 90.
8. Experienced personnel will accompany specialised equipment at the discretion of the providing party.
9. To facilitate Customs requirements all equipment and materials will be entered on behalf of the government of the requesting party.
10. Transport of equipment, materials and personnel will be by the most convenient means and will be arranged at the time of the incident after consultations between each party.
11. Each party agrees to regularly consult on matters relating to marine spill response, including exchanging:
  - information on changes in equipment and materials,
  - copies of contingency plans and marine pollution laws,
  - information on significant pollution incidents,and conducting joint exercises and training activities.
1. The parties agree to co-operate in the enforcement of marine pollution laws.
2. This MoU will come into effect at the date of signing and will remain in effect unless terminated by either party, giving the other party six months notice in writing of its intention to terminate.

Signed in duplicate at *(insert location)* on this ..... day of .....

.....  
*(insert name/ position of authorised signing officer)*    *(insert name/position of authorised signing officer)*

