NATIONAL MARINE SPILL CONTINGENCY PLAN

" NATPLAN "

The Republic of the Fiji Islands

[add logo of FIMSA]

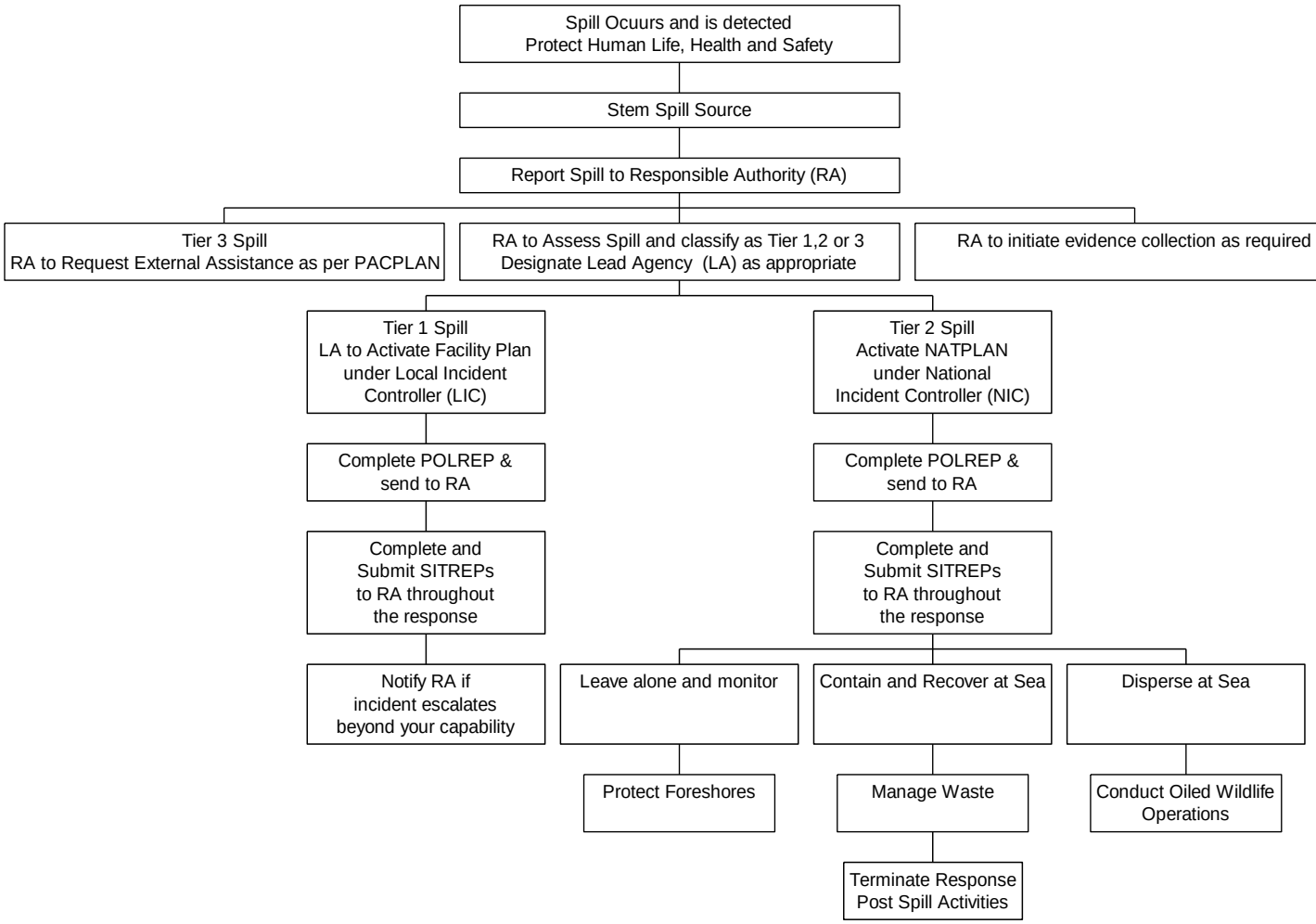
This plan has been developed to reflect the essential steps to initiate, conduct and terminate an emergency marine spill response in the Fiji Islands

NATPLAN provides a concise and easy to follow guide to the management of spill response and associated linkages to supporting documentation.

This plan consists of two main parts, the core plan text and annexes designed to provide key supporting information to assist with spill response operations and planning.

24 – Hour Contact for Marine Pollution Reports
[National Fire Authority – 000, DISMAC – 311 611]

Marine Spill Response Action Checklist



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ANNEXES [To update……]

[other appendices may be added as a country see fit. Examples are; technical details on oil types carried in the country, including spreading and evaporation rates; Material Safety Data Sheets for dispersants stockpiled in the country; the SPREP Dispersant Use Guidelines etc].

1. INTRODUCTION

1.1 Background

The Government of the Fiji Islands has developed this National Marine Spill Contingency Plan (NATPLAN) as part of its commitment to protecting our valuable coastal and marine resources from the threat of marine pollution incidents.

NATPLAN has been developed to reflect the essential steps necessary to initiate, conduct and terminate an emergency spill response on, or into the navigable waters of the Fiji Islands on the adjoining shorelines, the waters of the contiguous zone or into waters of the exclusive economic zone.

This plan also meets the obligations of the Fiji Islands under the Protocol Concerning Cooperation in Combating Pollution Emergencies in the South Pacific Region (SPREP Pollution Protocol) of the Convention for the Protection of the Natural Resources and Environment of the South Pacific Region (SPREP Convention). As well as obligations under the International Convention on Oil Pollution Response, Preparedness and Cooperation 1990 (OPRC 90).

In the event of a marine pollution incident in the Fiji Islands all government departments and agencies and all oil companies, shipping companies and other relevant parties, which operate within the Fiji Islqands, are required to follow the procedures laid down in this plan.

1.2 Aim & Objectives

The Aim of the NATPLAN for the Fiji Islands is:

- *To plan and provide for an appropriate response capability to prevent/minimise damage to marine and coastal environments and resources from marine pollution events.*

The Objectives of NATPLAN are:

- *Provide the basis of planning for marine pollution and other maritime emergencies at a National level.*
- *To provide the organsiational structure and procedures for the coordinated, timely and effective response to maritime spills of oil and other noxious and hazardous substances.*
- *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 facilitate the implementation of the SPREP Pollution Protocol and OPRC 90 in the Fiji Islands*

1.3 Technical Scope & Tier One, Two and Three Spills

This NATPLAN covers the response to spills into the marine environment of all forms of pollutants, including oil, chemicals and other hazardous materials. However, it retains a primary focus on oil spills, as oil is the main pollutant likely to be spilled Fiji Island waters.

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

For the purposes of NATPLAN, spills are classified as Tier One, Two and Three spills. Classification is dependant upon the type and amount of pollutant spilt, or likely to be spilt, the resources required and level of support both Nationally and Internationally.

Tier One

- *Small spills that are within the response capability and resources of an individual port or oil terminal within the Fiji Islands These spills would normally have low potential for environmental or economic harm and are usually covered by oil terminal, port or other facility specific response arrangements.*

Tier Two

- *Medium spills that are within the national capability and resources of the Fiji Islands. These spills would have a moderate potential for environmental and/or economic harm and are* ***c****overed by this NATPLAN.*

Tier Three

- *Major spills that are of a magnitude and/or severity that is beyond the response capability and resources of the Fiji Islands, and/or*

- *that impacts or threatens to impact within the jurisdiction of both the Fiji Islands and neighboring country(ies) and,*

- *the spill has the potential to cause extensive local or regional environmental damage and loss of resources.*

Tier Three spills are initially covered by this NATPLAN and also require activation of PACPLAN - the Pacific Islands Regional Marine Spill Contingency Plan or other international mutual assistance agreements.

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 of oils and hazardous chemicals may fit the Tier Two or even Tier Three category, depending on the response capabilities and resources available, 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 been done at the time of the spill, according to an assessment by the Responsible Authority.

Because in reality spills do not fall into convenient categories, the boundaries between Tiers will inevitably be blurred. The Responsible Authority 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.

1.4 Integration with Other Contingency Plans

This plan is complimented with National Disaster plans, local, oil industry, site and port emergency plans as well as international support plans like PACPLAN.

This plan will be subordinate to the National Disaster Management Plan which is the framework by which all disaster planning and response is addressed in the Fiji Islands.

1.5 Geographical Scope

The geographical scope of NATPLAN, referred to hereafter as the NATPLAN Area, is all of the coastlines and all marine waters below highest astronomical tide within the 200 nautical mile limit of Fiji Islands.

Figure One: The NATPLAN Area for [Pasifika].

[Add map showing the 200 nautical mile EEZ limit for Pasifika – **Request SOPAC**]

1.6 Underlying Principles, Protection Priorities & Environmental Sensitivities

The main four underlying principles of an environmental pollution emergency plan are:

Prevention:	*regulatory and physical measures to prevent incidents or mitigate the effects of the pollutant.*
Preparedness:	*arrangements to mobilise and deploy all necessary resources and services.*
Response:	*actions taken during and immediately after a pollution emergency to minimise effects.*
Recovery:	*arrangements to restore the affected environment to normal.*

NATPLAN 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 such efforts, for various reasons, spills will continue to 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 and national level. NATPLAN constitutes the national contingency plan for the Fiji Islands.*

- *The primary purpose of NATPLAN is to provide a national mechanism for the **prevention/minimisation of damage** to marine and coastal **environments and resources** from marine spills, and to hasten the **recovery** of any environments and resources damaged by marine spills.*

- *The response to marine spills under NATPLAN will always seek to maximise co-operation, co-ordination 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 NATPLAN, the following protection priorities should be adhered to (in order of priority accepted internationally):

- *Human life, health and safety.*
- *Biological habitat.*
- *Rare and endangered species.*
- *Cultural resources.*
- *Commercial resources.*
- *Non-commercial property and amenity.*

Within these protection priorities, various marine and coastal environments and resources have different environmental sensitivities, requiring further prioritisation of spill response efforts.

The distribution of coastal resources is shown in Figure Two and the designation of environmental sensitivity ratings and protection priorities is shown in Figure Three [add sub figures for specific areas if necessary].

Figure Two: Coastal Resource Map.

[Add Figure Two. More than one figure may be required (e.g. a separate map may be required for each island where the risk of a spill is significant). Refer Section 10 of Explanatory Notes for further information]

Figure Three: Environmental Sensitivity Ratings & Protection Priorities

[Add Figure Three. More than one figure may be required (e.g. a separate map may be required for each island where the risk of a spill is significant).

[Detail areas that warrant specific attention.]
[Identify in particular;

- marine parks
- reserves and national parks
- special protected areas
- world heritage areas
- RAMSAR wetlands etc]

[Refer Section 10 of Explanatory Notes for further information]

1.7 Risk Assessment

International data suggests that 80% of marine oil spills occur within port or harbour areas. These spills are usually small in nature resulting from normal operations such as loading/unloading and bunkering of fuels.

[add details of PACPOL risk assessment]

[add summary of risk assessment, a few paragraphs only. Refer Section 9 of Explanatory Notes for further information].

- risk of collision
- risk of groundings
- hazard to navigation
- records of seaworthiness of vessels (Port/State Control inspections)
- negligence and competence of crews
- size/type of vessels
- type/amount of oil/chemicals carried
- traffic density
- environmental factors (weather, tides, severe weather events eg cyclone frequency)
- environmental resources under threat
- petUnitum facilities
- tank farms
- offloading mechanisms eg wharf/fixed pipeline/floating pipeline

[type of spills expected, realistic scenarios]

1.8 Types of Oils and Chemicals Transported in Region

[From outcomes of the PACPOL Risk Assessment Project]

[Detail the major categories of oils, fuels & chemicals, imported, exported and manufactured in Pasifika]

Figure Four: High Risk Areas for Marine Pollution Incidents

[Add Figure Four showing location of shipping lanes, vessel refuelling and tanker discharge/loading facilities, pipelines and oil terminals in your country. More than one figure may be required (e.g a separate map may be required for each island where the risk of a spill is significant). Refer Section 9 of Explanatory Notes for further information].

2. UNITS & RESPONSIBILITIES

2.1 National Marine Pollution Committee

The National Marine Pollution Committee consists of high level representatives from the following organisations:

- Fiji Islands Maritime Safety Authority (FIMSA) - *(Chair of the committee).*
- Maritime and Ports Authority of the Fiji Islands
- Department of Environment.
- National Fire Authority.
- [add name of national disaster/emergency management administration]?
- *The oil industry. – BP, Mobil and Shell*
- *The shipping industry?*

The Unit of the committee and its members are to:

- *Develop, implement and maintain the NATPLAN.*
- *Oversee the response to marine spills and monitor performance and effectiveness.*
- *Review local/facility contingency plans for consistency with National arrangements*
- *Oversee national marine spill response training and exercises.*
- *Make available those facilities or resources, that may be useful in a response situation, consistent with the agencies authority and capability.*
- *Provide advice to government on general marine pollution issues and contribute to development of policy, legislation and other initiatives relating to the prevention and response to marine pollution*
- *Promote public awareness of, and appropriate commUnity participation in marine pollution prevention, preparedness and response.*

2.2 Responsible Authority

The Fiji Islands Maritime Safety Authority (FIMSA) is the Responsible Authority for all marine spills within [Pasifika] *waters.*

The Responsible Authority has legal or statutory responsibility for administering and enforcing the national marine pollution legislation and for the overall management of the NATPLAN.

2.3 Lead Agency.

The Fiji Islands Maritime Safety Authority is the Lead Agency for all Tier Two and Three marine spills within Fiji Island waters that require the activation of this NATPLAN. FIMSA, as the Lead Agency has operational responsibility during the response to marine spills, through the designated National Incident Controller (NIC). The lead Agency has the responsibility for taking physical action to mitigate the impacts of the spill on the environment. Refer Section 4 below for further details.

In the case of Tier One spills where the NATPLAN is not activated the Lead Agency will be the entity operating the facility. All relevant facilities such as oil terminals and ports will be required to have their own contingency plans. A Local Incident Controller (LIC) will be appointed in each facility and will have operational responsibility during the response.

2.4 Other Government Departments

Regardless of which agency bears lead responsibility all other government departments shall support the Responsible Authority and Lead Agency in accordance with the organisational structure outlined in Section 4 below.

2.5 Responsible Party (Polluter)

The party responsible for causing the spill has the following responsibilities:

- *Reporting the spill immediately to the Responsible Authority.*
- *Taking immediate action to control or stem the source of the spill.*
- *Taking immediate action to contain the spill and prevent it from spreading.*
- *Co-operating fully with the Responsible Authority in the response to the spill under the direction of the National Incident Controller (NIC).*
- *Any legal obligations and responsibilities not covered above as required by relevant legislation, including those relating to meeting the costs of the spill response and clean-up and mitigation of any environmental and economic damage.*

2.6 Oil Industry

All oil companies operating in the Fiji Islands have the following Units and responsibilities under NATPLAN:

- *Giving highest priority to preventing spills from tankers, pipelines, terminals, depots and other facilities owned and/or operated by them.*

- *Immediately reporting all marine spills from their facilities to the Responsible Authority.*

- *Developing and maintaining local marine spill contingency plans for all facilities that they own, manage and/or operate as well as ensuring that these plans are compatible and integrated with NATPLAN.*

- *Establishing and maintaining stockpiles of marine spill response equipment for all facilities that own, manage and/or operate, with the types and amounts of equipment being appropriate to the level of risk at each facility.*

- *Ensuring that personnel are appropriately trained in marine spill prevention and response.*

- *In the event of a spill from its facilities, the Units and responsibilities outlined in Section 2.5 above.*

- *Actively participating in the National Marine Pollution Committee and in planning, exercises and training activities.*

2.7 Unit of P&I Clubs

Approximately 90% of the world's shipping fleet is entered with a Protection and Indemnity insurer, called a P&I Club. The risks covered by the P&I Clubs include;

- ♦ Liability arising from the carriage of cargo
- ♦ Pollution liability
- ♦ Liability for loss of life and injury to crew members, passengers and others such stevedores on a ship
- ♦ Damage to fixed and floating objects and to other property
- ♦ Wreck removal
- ♦ And other such parts of the liability for collision damage as is not covered under a vessel's hull policy.

When an incident occurs a P&I Club usually appoints a correspondent to assist the P&I Club in relation to claims that arise where the correspondent operates.

The Unit of the correspondent in marine pollution incidents involving vessels includes but not limited to;

- Notifying the P&I Club of incidents that occur in his area of responsibility
- To attend an incident scene if appropriate
- To appoint surveyors/experts to attend at the scene of a maritime casualty
- To liaise with governments, maritime authorities at the scene of a maritime casualty
- To monitor salvage operations, pollution containment/removal at the scene of the casualty
- To assist in posting security for claims and,
- To assist in carrying out investigations on cause of loss of vessel/cargo

The IC should ensure that the P&I Club and/or P&I Correspondent are fully informed of the activities being undertaken during the incident response and that they have access to running records of costs of the incident. The correspondent would also be working closely with the Salvors and ships master so they will be a valuable conduit for information flow.

3. POLLUTION REPORTS & COMMUNICATIONS

3.1 Surveillance & Spill Detection

All maritime oil and chemical spills should be reported to the Responsible Authority and recorded systematically. Vessel incidents such as groundings, collisions, fires, explosions or other accidents or incidents should also be reported as these can often lead to the release of cargoes or vessel fuels and oils.

Under the MARPOL Convention there is an obligation on the master of a vessel to report any marine pollution incidents without delay, and to the fullest extent possible, to the coastal State in order to facilitate necessary counter-pollution actions. Mandatory reporting requirements for incidents involving harmful substances are contained in article 8 and Protocol 1 to MARPOL 73/78.

All personnel in industry, government agencies, members of the general public, as well as crews of civil and military aircraft, should be required to, and be able to, report a spill to the Responsible Authority or Lead Agency 24 hours a day.

3.2 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 report the spill to the Responsible Authority or Lead Agency.

It is essential that a 24 hour hotline number be established and maintained to provide a focal point to government, industry and the general public.

24-Hour Emergency Hotline for the Fiji Islands
National Fire Authority – 000, DISMAC - 311611

The Lead Agency in consultation with the Responsible Authority should assess the implications of the situation and make a decision on whether any response is likely to be required. Also if operational personnel need to be placed on standby and whether other parties need to be made aware of a potential pollution situation.

The Lead Agency should immediately complete a POLREP, using the standard format contained in Appendix Two, and urgently transmit this to all members of the National Marine Pollution Committee, any other affected/interested parties and to SPREP via facsimile (see 3.6 below).

3.3 Situation Reports (SITREPS)

In order to provide periodic updates on pollution incidents, the Lead Agency should complete SITREPs, using the standard format contained in Appendix Three. These SITREPs should be frequently compiled from field information and transmitted to all members of the National Marine Pollution Committee, any other affected/interested parties and to SPREP via facsimile, at regular intervals throughout the spill.

3.4 Post-Incident Reports (POSTREPS)

After a pollution incident, the Lead Agency 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 NATPLAN.*

When the Lead Agency has compiled this report, the National Incident Controller and other personnel should meet with the National Marine Pollution Committee to review their collective experiences and compile an overall Post-incident Report (POSTREP), including if necessary, any recommendations for amending or revising NATPLAN.

3.5 Media and Public Reporting

When an incident occurs it is imperative to give the public prompt, accurate information on the nature of the incident and actions underway to mitigate the damage. Media and commUnity relations personnel should ensure that all appropriate public and private interests be kept informed and their concerns are considered throughout a response. (see Annex ? Media Plan)

3.6 Pacific Islands Regional Marine Spill Reporting Centre (PACREP)

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

PACREP is simply the SPREP fax number (685) 20231, which provides the focal point for receiving and relaying information concerning any marine pollution incident in the region. PACREP is a facility where:

- *POLREPS of all marine spills in the region should be sent to by the Lead Agency where the spill occurs.*

- *The progress of a spill can be monitored, through the receipt of SITREPs from the Lead Agency where the spill occurs.*

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 SPREP 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 Sectional during normal business hours. Its main purpose is for the collection, analysis and dissemination of spill data. All spills within the Fiji Islands must be reported to the Responsible Authority.

4. Incident Command & Control

4.1 Elements of Effective Control of Spill Response

Establishing effective control and initiating a spill response requires a number of actions, these include:

- *appointment of a National Incident Controller (NIC),*
- *mobilising the Marine Spill Response Team,*
- *establishing a suitable incident control centre,*
- *establishment of effective communications,*
- *effective collation, transfer, display and storage of information,*
- *effective management of public and commUnity relations (media and consultative processes).*

4.2 Incident Control System and Marine Spill Response Team

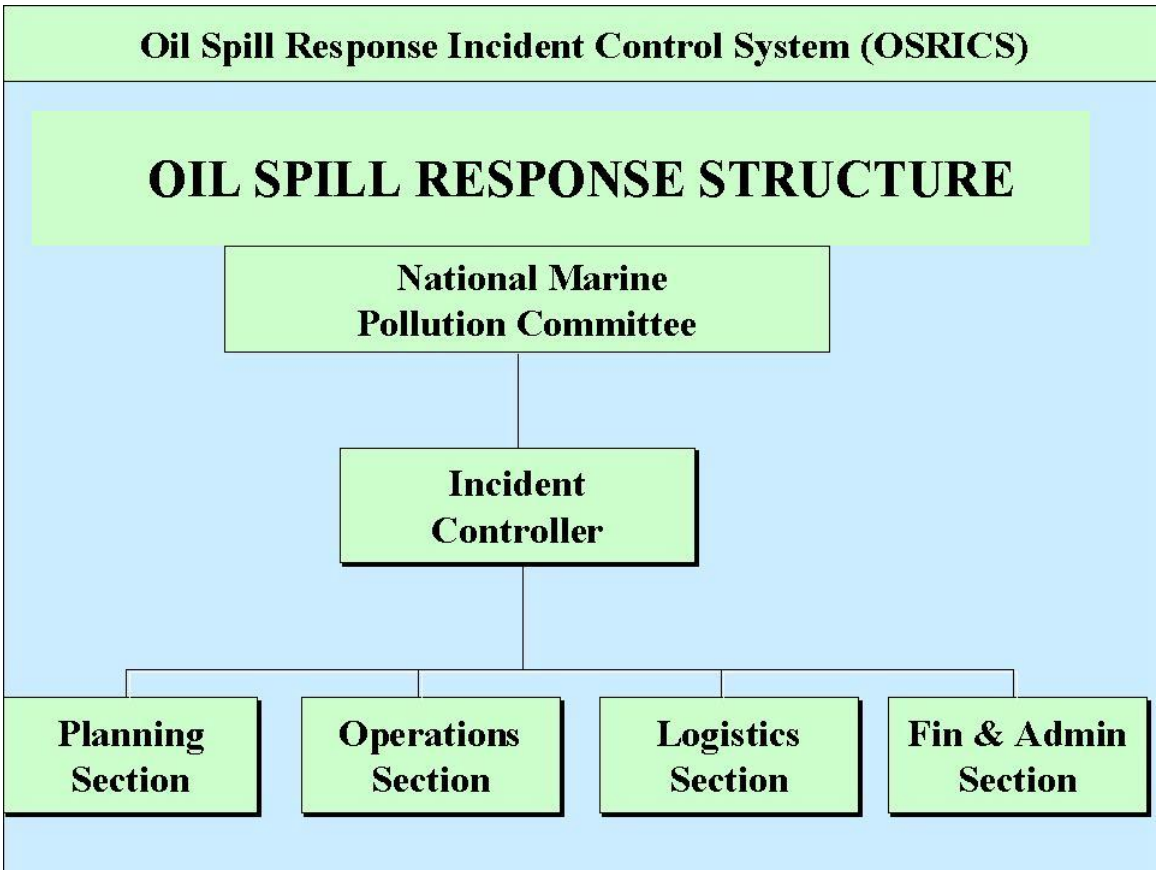
Response operations cannot be effectively carried out unless there is a clear organisational structure to command and control the response and trained individuals to carry out the response plans..

The overall structure of incident command and control system is depicted in Figure Five. In the event of a marine spill within Fiji Island waters, a Marine Spill Response Team based on this structure should be immediately established by the designated Lead Agency.

The number and nature of the individual Sections should be flexible and tailored to suit the size and nature of the spill. Several Sections may be combined under a single coordinator for small spills.

The NIC directs response efforts and co-ordinates all efforts at the scene and is the primary decision-making authority in relation to spill response activities. This is achieved through the Incident Control System especially modified to support oil spill response called the Oil Spill Response Incident Control System or OSRICS.

Figure 5: Marine Spill Response Team (Oil Spill Response Incident Control System)



The responsibilities of the various Marine Spill Response Team can be summarised as follows:

- ***Planning Section*** *- responsible for the provision of scientific and environmental information, the maintenance of incident information services, and the development of the Incident Action Plan.*

- ***Operations Section*** *- responsible for undertaking all response operations in the field.*

- ***Logistics Section*** *- responsible for the provision of resources to sustain the response.*

- ***Finance & Administration Section*** *- responsible for maintaining financial and administrative records of the response activities.*

4.3 Units and Responsibilities of Marine Spill Response Team

The OSRICS system allows flexibility for the escalation or reduction in the organisational /management structure as the scale of the response increases or diminishes. The number of personnel comprising each of the Sections, and its sub Units, will be determined by both the size of the incident and the needs of the National Incident Controller.

The Units and responsibilities the various members of the Marine Spill Response Team are as follows:

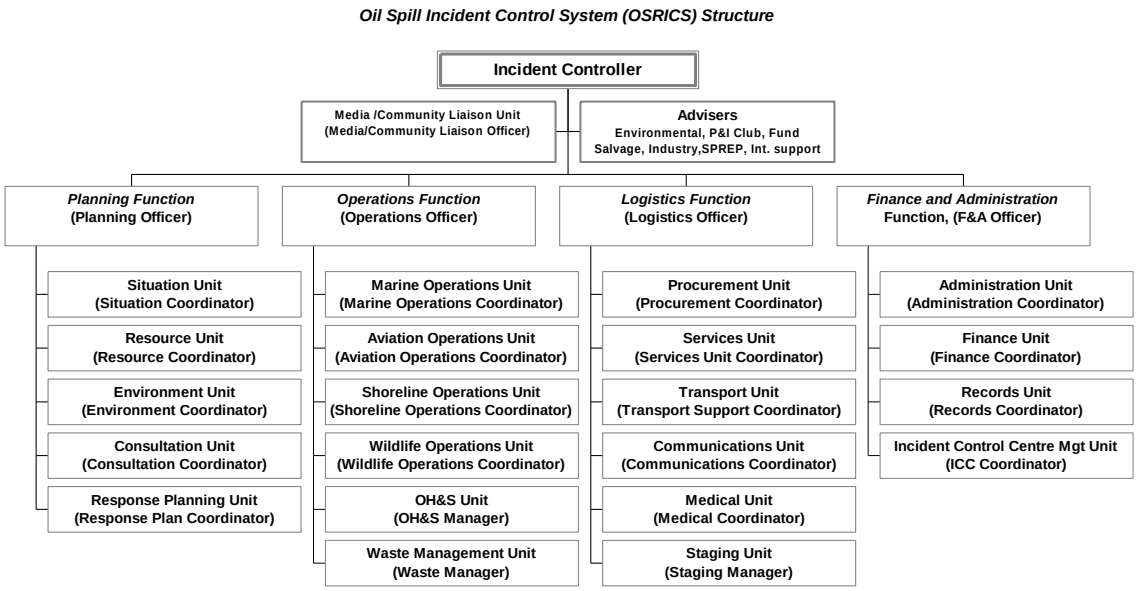
4.3.1 National Incident Controller

The Director of FIMSA (or his designee) is designated as the NIC for all marine spills within Fiji Island waters.

In the event of a marine spill, the IC will assume operational responsibility for commanding the response to the spill and will control and direct the use of all resources. The national government invests the IC with the authority necessary to command all national assets and resources the are deemed necessary to deal with the incident.

In carrying out his/her Unit, the IC shall be supported by an incident response team comprising the personnel and organisational structure outlined in Figure Six.

Figure Six:. Organisational Structure – Response to Marine Pollution



4.3.2 Planning Section

The Planning Section has clearly defined specific responsibilities which provide the basis for all operational activities. The Planning Section may be split into a number of sub Units in a major incident to enable it to more effectively meet its responsibilities. The sub Units identified in OSRICS and their Units are as follows:-

Situation Unit -	*responsible for the collection, processing and organization of information*
Resource Unit -	*responsible for information on the deployment of resources*
Environment Unit –	*responsible for the collection and collation of environment data and advice*
Consultation Unit –	*responsible for the coordination and development of commUnity and commercial consultation*
Response Planning Unit –	*responsible for the coordination, development and review of incident action planning*

4.3.3 Operations Section

The operational aspects of the response will take place in the field, remote from the Incident Control Centre where the planning process has taken place.

It is, therefore, essential that significant links are developed and maintained between the response personnel in the field, the Operations and Planning Section staff in the Incident Control Centre.

OSRICS provides for these links to be established by the development of reporting lines on a similar basis to those implemented within the other Sectional Sections. Operations in the field have been subdivided into Units with responsibility for specific aspects of the response activities.

These Units have been developed with quite clear operational parameters. The six Units, each under the direction and control of a Coordinator who is responsible to the Operations Officer, cover the following operations:-

Marine Unit -	*all activities undertaken by waterborne craft and equipment*
Aviation Unit -	*all activities undertaken utilising fixed wing aircraft or helicopters*
Shoreline Unit -	*all clean up activities undertaken on the shoreline*

Wildlife Unit -	*all activities involved in the collection and treatment of oiled wildlife*
OH&S Unit -	*all activities related to the implementation of the Occupational Health & Safety Plan provisions*
Waste Management Unit -	*all activities related to the containment and disposal of recovered oil and oil debris*

4.3.4 Logistics Section and Finance & Administration Section

In any emergency situation there is a vital need to ensure that response personnel are provided with adequate resources to enable an effective response to be mounted and that these personnel are provided with the essential amenities. To carry out these Sections, OSRICS identifies a Logistics Section which is given responsibilities for ensuring that these resources are made available as required.

A vital component of any incident response is the need to ensure that fully detailed records are maintained to enable full cost recovery to be achieved from the polluter. OSRICS provides for these records to be kept through a Finance & Administration Section. In addition, the Finance & Administration Section is responsible for the management of the Incident Control Centre. Each of these Sections is under the direction of a Section Officer and, in cases where the sub-Units are formed, each sub Unit is under the direction of a Coordinator who reports to the Section Officer.

As with the other Sectional Sections in a major incident, the responsibilities of each of these Sections may be split into sub Units as follows:-

Logistics

Procurement Unit –	*responsible for acquisition of personnel and equipment*
Services Unit –	*responsible for the acquisition of services and facilities*
Transport Unit –	*responsible for the provision of aviation, land and sea transport services*
Communications Unit –	*responsible for the provision of communications services and support*
Medical Unit –	*responsible for the provision of medical services*
Staging Area Unit –	*responsible for the activation and management of assembly and staging areas*

Finance & Administration

Administration Unit –	*responsible for administrative services*

Finance Unit –	*responsible for the provision of financial services*
Records Unit –	*responsible for the collation of incident records*
I C C Management Unit –	*responsible for the management of the Incident Control Centre*

5. RESPONSE ACTIONS & OPERATIONS

The ecological impact of a oil, fuel, chemical or hazardous substance spill can be minimised by good management and planning as well as the response actions put into effect by the Responsible Authority and Lead Agency. Such actions will largely depend on several factors;

- *the type of oil, fuel or chemical(s) involved;*
- *the size of the spill;*
- *the location of the spill;*
- *prevailing sea and weather conditions at the spill site;*
- *the environmental sensitivity of the coastline/site impacted.*

In commanding the response to the spill, the IC should ensure that defensive actions should begin as soon as possible to prevent, minimise or mitigate the threat to the environment or public health from the pollution.

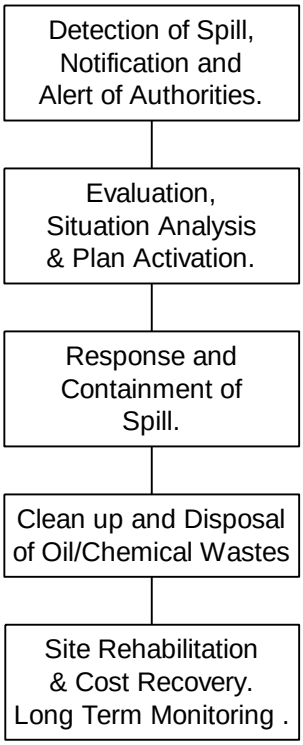
To ensure that these actions are taken, the IC should delegate relevant tasks to the Marine Spill Response Team. To assist in this process a Spill Response Action Checklist at the front of the NATPLAN summarises this sequence.

Depending on the nature of the spill, some of the actions listed below may not be applicable or may be carried out in parallel rather than in sequence, as determined by the IC.

5.1 Phases of a Response

There are five main phases to the overall process of responding to oil or hazardous chemical spills which can be summarised as follows in figure 7;

Figure 7. Five Phases - Response to Marine Spills.



5.2 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 protection of public health and safety as well response personnel should take precedence over all other actions to minimise environmental damage.

Every oil, fuel or chemical spill incident has its own unique dangers to which response personnel may be exposed. The protection of the public and response personnel should always be of prime importance in the decision making. In marine spill response situations, equipment or personnel <u>should not</u> be deployed:

- *if the identity of the fuel oil or chemical(s) spilled and hazards are unknown;*
- *if weather or sea conditions pose an undue risk to personnel safety;*
- *if there is a threat of fire or explosion;*
- *if required personnel protective equipment is not available.*

Operations should be suspended or terminated if an unsafe condition arises during a response operation.

Major vessel incidents such as fires, explosions, groundings etc can result in the need for the search and rescue of mariners. First priority should always be to the health and safety of personnel.

5.3 Stabilising Spill Source & Intervention at Sea

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.

All efforts must be focused on saving a vessel so that the problem is not compounded. Stablising the situation includes securing the source of the spill and/or removing the remaining oil from the vessel, tank or pipeline to prevent additional pollutant entering the sea.

With accession to the United Nations Convention on the Law of the Sea (UNCLOS), [Pasifika]'s *jurisdiction extends to the Exclusive Economic Zone and the Territorial Sea extends to 12 miles from the coastline. This permits* [Pasifika] *to intervene on the high seas against the wishes of the ship and cargo interests. This is only to the extent necessary to prevent, mitigate or eliminate grave and imminent danger to the coastline or related interests from pollution or threat of pollution of the sea, following a maritime casualty, which may be reasonably expected to result in major harmful consequences.*

The measures taken must be proportionate to the damage, whether actual or threatened, and must not go beyond what is reasonably necessary to achieve the ends of protection and must cease when those ends have been achieved.

Such measures may include:

- *move the ship or part of the ship to another place;*
- *remove cargo from the ship;*
- *salvage the ship, part of the ship or any of the ships cargo;*
- *sink or destroy the ship or any part of the ship;*
- *sink, destroy or discharge into the sea any of the ship's cargo, or*
- *take over control of the ship or any part of the ship.*

5.4 Salvage of Casualty

In the event of an incident involving a damaged or disabled ship, it is paramount that the salvage industry be involved in the response as soon as possible. Salvage activities may need to be arranged for taking the vessel in tow, refloating a grounded vessel, or reducing or stopping a discharge of pollutant to minimise environmental damage resulting from the casualty. It is essential that these operations are undertaken as soon as possible

In accordance with Fiji Islands legislation FIMSA has responsibility for safety issues relating to vessels on coastal or foreign voyages and will be responsible for ship operational matters. These Sections include alerting and liaising with salvors, taking measures to minimise pollution release or outflow and other salvage activity.

A salvor will normally be appointed by the vessel's owner or master by signing a Lloyds Open Form Agreement. However, in cases where this does not occur FIMSA may use its powers under the International Convention relating to Intervention on the High Seas in Cases of Oil Pollution Damage 1969, to either direct the Master/Owner to engage a Salvor or alternatively contract a salvor to undertake necessary work, with costs recoverable from the owner.

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 all members of the National Marine Pollution Committee, other affected/interested parties and SPREP.

The NIC is responsible for the assessment of the spill to attempt to classify it as Tier One, Two or Three (refer Section 1.3), and determine whether or not external assistance is required though activating PACPLAN (refer Section 6 below). 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 operate response options. There are three main ways a spill trajectory can be determined;

- ⇒ *direct observation (surveillance),*
- ⇒ *manual calculation using currents & winds,*
- ⇒ *and computer modeling.*

Visual observation of any spill is essential and the NIC, through his support personnel, should arrange for charter, military or commercial aircraft to assess and monitor the movement of the spill.

Meteorological and hydrographic data should be obtained by the NIC, through his support personnel, 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.

It is essential that the results of such observations and predictions are transmitted to other parties likely to be affected by the spill (e.g. neighboring islands).

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 through SPREP.

5.7 Response Option Assessment Criteria

Alternative control and protection options shall be assessed to determine whether they can adequately protect human health and the environment in both the short term and long term from the unacceptable risks posed by the oil or hazardous substance spill.

When assessing the appropriate response options the criteria the Planning Unit and NIC should use are;

- *overall protection of human health and the environment,*
- *short and long term effectiveness on reducing flow, mobility or toxicity of pollutant,*
- *implementability of option and availability of equipment and materials,*
- *government/commUnity acceptance of option,*
- *and relative cost compared to other options.*

It is the responsibility of the Planning Section to develop a Response Action Plan (RAP) which must include;

- *Clear environmental objectives for the plan (eg protection / clean-up)*
- *A strategy for the response and necessary action to be undertaken by the Operations Section*
- *Clear time-lines for actions to phases of the plan and,*
- *Concise statements of responsibilities for the set actions/tasks.*

5.8 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 maybe to leave the spill alone, allowing natural physical and biological degradation to occur at sea.

The response to marine spills under NATPLAN 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. The next stage of response operations should be activated if even the slightest possibility of coastal impact arises.

5.9 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 NATPLAN, and will need to be inserted into accompanying Annex].

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.

5.10 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 NATPLAN, and will need to be inserted into accompanying Annex].

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 and in accordance the SPREP Environmental Guidelines On the Use of Oil Spill Dispersants (Refer to the Guidelines or contact SPREP).

If dispersants are used in accordance with the SPREP Guidelines, they represent a very useful oil spill response tool and it is advised that the nominated environmental Unit of the response team be involved in the planning and use of dispersants.

To ensure only approved dispersants are used in Fiji Island waters the National Marine Pollution Committee shall maintain a schedule of dispersants and other response chemicals that may be authorised for use on oil spills at sea or on shorelines.

5.11 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 NATPLAN, and will need to be inserted in the Annex].

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 ratings is shown in Figure Three [Figure Three will have to be added to Section.5].

5.12 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 However, this option is only likely to be acceptable in very remote, unpopulated areas or with high-energy wave environments.

Where oil does come ashore, the extent of clean-up of oiled coastal areas is to be carefully planned with the view of minimising further environmental damage which may result from the clean-up operation.

Sometimes, oil on shorelines may best be left to weather and degrade naturally. This is particularly true where oil impacts a sensitive area such as mangroves, salt marshes or mud flats. In these areas the clean-up operations can result in more environmental damage than the oil itself due to physical disturbance and substrate erosion.

The selection of shoreline clean-up techniques depends on many different factors, which include:

- *type of substrate;*
- *amount of oil on the shoreline;*
- *depth of oil in the sediments;*
- *type of oil (tar balls, pooled oil, etc);*

- *presence of wildlife;*
- *prevailing oceanographic and meteorological conditions;*
- *environmental or culturally significant sites; and*
- *access and trafficability for equipment.*

Shoreline clean-up methods may consist of one or more of the following methods, depending on the extent of oiling and the shoreline environment:

- *removal of floating or pooled oil;*
- *removal of oiled material and vegetation;*
- *use of sorbent materials;*
- *low pressure flushing;*
- *mechanical collection and removal of oiled material;*
- *manual collection and removal of oiled material;*
- *use of Bioremediation agents; and*
- *dispersant application.*

[The techniques and equipment available for foreshore clean-up should be outlined in the NATPLAN, and will need to be inserted in Annex].

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, etc).

5.13 In-situ Burning

Burning of the spilt oil or fuels at sea has the potential of removing large quantities of spilt oil or fuels but has not been used extensively in oil spill response in the region
.
The application of in-situ burning could prevent oil coming ashore into populated areas or preventing oil contamination of environmentally sensitive habitats and wildlife. The technique offers the advantage of a quick removal process minimising shoreline contamination and reducing the quantity of oily waste products requiring treatment or disposal, as well as removing the oil before it spreads or moves to other areas under the action of wind and currents.

The disadvantages of in-situ burning is the inefficient combustion of the oil resulting in a visible black smoke plume. It has been perceived that atmospheric fallout of combustion by-products, soot, combustion gases and volatilised hydrocarbons could pose a health risk down wind. Recent research has shown that these emissions and their toxicity were lower than expected. Residues after in-situ combustion tests varied between 1-10% of the original oil.

The combustion behaviour of the oil spilled must be known prior to this option being considered for use. The field monitoring or plume dispersion modeling of the combustion cloud and fumes is a high priority in the decision to use this option. Great caution must be exercised with the in-situ burning of petrol spills as this must be carried out well away from population centres and can emit large quantities of radiant heat and fumes in the vicinity of the burn.

For in-situ combustion to be sustained the heat generated by the burning of the oil must overcome the cooling effect of the sea. Thin slicks do not burn and a minimum thickness of oil is required for combustion. For in-situ combustion to work the oil must have sufficient volatility and light oils must have 2-3 mm thickness and for heavy oils 8-10 mm thickness. Because oil spreads rapidly, especially low viscosity oils, the use of containment systems such as fire resistant booms, are sometimes required to maintain this minimum thickness. These booms are very expensive and not readily available within Pacific region or even Australia and often require full replacement after one use.

In-situ burning of oil spills in open waters is receiving greater attention by response agencies world-wide as it offers a very viable and cheap option to stop oil spreading, especially in remote areas where the lack of equipment or weather conditions limits conventional open water containment and clean-up.

5.14 Bioremediation

Bioremediation is the artificial enhancement of hydrocarbon degrading organisms designed to consume and break down oil. By accelerating the natural biological processes of biodegradation, bioremediation aims to increase the rate of degradation, by either stimulating micro-organisms existing naturally in the area, or by seeding more micro-organisms. However, the immediate environment is quickly depleted of available nutrients, especially nitrogen, which is necessary to support this increased population. Thus, most uses of bioremediation will require the application of fertiliser to the affected area. In some cases it may be beneficial to start fertiliser application before an area is affected.

Whilst bioremediation has not been a primary response strategy to an oil spill historically, it is now receiving renewed attention and can be used successfully to assist an area to recover oil foreshores from the effects of an oil spill.

Bioremediation of oil spills can incorporate three general techniques to artificially enhance the biological degradation of oil:

- *addition of nutrients to the environment (fertilisation);*
- *culture and inoculation of in-situ or exotic organisms;*
- *culture and inoculation of genetically enhanced organisms.*

The most effective bioremediation strategies for oiled foreshores have utilised the fertilisation technique.

5.15 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 marine mammals.

[The techniques and equipment available for rescuing, cleaning and rehabilitating affected wildlife should be outlined in the NATPLAN and will need to be added. Because of the complexity of such operations, it may be necessary to have a separate oiled wildlife plan as a sub-set of NATPLAN or detailed annex].

5.16 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.

Oil and oily wastes recovered in cleanup operations shall be disposed of in accordance with local legislation and by-laws.

Temporary oily waste storage sites must be selected taking into account;

- *Accessibility of the storage site*
- *Distance from where oily wastes is collected*
- *Oil type*
- *Composition of contamination eg vegetation, sand, sorbents*
- *Volume of oil/contaminants*
- *Potential for groundwater pollution*
- *Potential for flooding from tidal movement*
- *Compatibility with on-site and adjacent land use*
- *Proximity to environmentally sensitive areas*
- *Wildlife access to site eg birds.*

[Oily waste management arrangements should be outlined in the NATPLAN, and will need to be inserted in an associated Annex.].

5.17 Chemical Spills/HAZMAT Response

As outlined under Section 1.3, NATPLAN 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 NATPLAN 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 NATPLAN Area, the general procedures and arrangements of NATPLAN should be followed.

External assistance may be requested via SPREP.

6. EXTERNAL ASSISTANCE

Should the Responsible Authority assess a spill to be a Tier Three spill (refer Sections 1.3 and 5.3), it should activate a Request for Assistance through SPREP, in accordance with the procedures laid down in PACPLAN - the Pacific Islands Regional Marine Spill Contingency Plan.

Copies of PACPLAN are held by the Responsible Authority, the Department of Environment and the SPREP National Focal Point.

In requesting assistance, as much information as possible about the nature of the spill should be provided and the request should be as specific as possible about the type of assistance required.

6.1 Pacific Islands Regional Marine Spill Contingency Plan (PACPLAN)

The Pacific Islands Regional Marine Spill Contingency Plan (PACPLAN) now endorsed by countries sets up a framework for the activation of a regional response to large marine spills that are beyond the response capability of one country or that have the potential to impact on more than one country. It allocates responsibilities in the event of marine spill incidents for the Secretariat, Pacific island members, non-island members and industry. It also provides a mechanism to address the responsibilities of countries to the SPREP Convention of 1986.

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 Co-operation in Combating Pollution Emergencies in the South Pacific Region (SPREP Pollution Protocol). The Protocol provides a formal framework for co-operation 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).*
- *Co-operate 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.*

PACPLAN now provides the framework for co-operative regional responses to major marine spills in the Pacific Islands region, including broad aims and objectives, underlying spill response philosophies and priorities, Units and responsibilities of relevant organisations, regional and international linkages and mechanisms for accessing regional and international assistance.

6.2 Other Mutual Aid Arrangements

All three oil companies operating in Fiji are members of AMOSC and have arrangements to utilise AMOSC's response capabilities if required. AMOSC is in turn linked to EARL and OSRL to provide further assistance if necessary.

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 IC, in consultation with his/her support personnel under the Marine Spill Response Team and the members of the National Marine Pollution 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 the nominated 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.

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 of the environment.

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 NATPLAN.

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. 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 NATPLAN, so as to improve the effectiveness of any future spill responses.

It is preferred a concise report of lessons learnt and any operational deficiencies be compiled for submission to the National Marine Pollution Committee for action.

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.*

Responsibility for initiating and coordinating post-spill damage assessment and monitoring should generally rest with the Department of Environment, which provides the Environmental Scientific Coordinator (ESC) on the spill response team. The following general principles should apply to post-spill damage assessment and monitoring.

- *The Department of Environment, 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 Department of Environment 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.*

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.

Responsibility for Post-spill restoration & rehabilitation should generally rest with the Department of Environment, that provides the ESC 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.*

8. Cost Recovery & Reimbursement

It is the responsibility of the Responsible Authority to initiate cost recovery actions direct with the polluters representative, eg P&I Club correspondent. If required to negotiate or to take legal action to achieve full settlement of amounts incurred in the response. In most cases the identity of the spiller is known and a representative of the P&I Club or Fund will be aware of the Authorities intervention.

The reimbursement of the costs of a marine spill response should be attempted from the polluter, under existing legal regimes (such as relevant national legislation, the 1992 Civil Liability Convention and the 1992 Fund Convention, if applicable).

To assist in the recovery of costs, detailed records of action taken and equipment and other resources used to respond to the incident, including detailed and complete records of all costs incurred, must be kept by all parties. 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 NATPLAN.

The IC through the Marine Spill Response team shall ensure the necessary collection and safeguarding of oil and environmental samples, information, accounts, receipts and reports for the recovery of costs through the spillers insurer.

9. EQUIPMENT

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

A list of equipment available in the Fiji Islands, storage locations and contact details is contained in Appendix Five .

Additional equipment may be available through external assistance (refer Section 6).

10. TRAINING & EXERCISES

A national spill response exercise/drill should be held in on an annual basis. Such exercises should be joint government/oil industry activities and seek to further develop government/industry integration. Responsibility for organising these in-country exercises rests with the National Marine Pollution Committee. SPREP can provide technical advice and assistance in the development, conduct and monitoring of these exercises.

11. APPLICABLE LEGISLATION, ENFORCEMENT & PROSECUTION

In the Fiji Islands, marine pollution is regulated under the Marine Act

This Act is administered by the Fiji Islands Maritime Safety Authority.

Under this Act, it is an offence to [add details as relevant].

In the event of a marine spill, the Responsible Authority, assisted by the Lead Agency and other government departments, will arrange for the collection of all necessary evidence, including sampling and analysis of the pollutant and its suspected source, photographs, records of interview and inspection of records, vessels, equipment and other facilities; to assist the effective prosecution of any offence that may have been committed.

[Annex ??? contains Investigation and Sampling Guidelines.]

12 . APPROVAL, CONTROL & REVISION OF THE PLAN

12.1 Approval of the Plan

NATPLAN is to be approved by the government of the Fiji Islands, with such approval requiring written endorsement of the plan by all members of the National Marine Pollution Committee.

12.2 Control of the Plan

NATPLAN will be a controlled document under the direction of the Responsible Authority. Full contact details for all holders of controlled copies of NATPLAN are maintained on a register at the office of the Responsible Authority, in order to facilitate revisions and updating.

12.3 Revision of the Plan

The main body of NATPLAN may only be revised by agreement of all members of the National Marine Pollution Committee followed by approval by Cabinet.

Proposed revisions to the main body of NATPLAN may be submitted by any member of the Committee for consideration by the Committee.

Technical information contained in informational annexes, such as contact details and equipment inventory, will be revised and updated regularly, and new informational appendices added as required, by the Lead Agency, without the need for agreement by the Committee. Such revisions and updates will be circulated by the Lead Agency to all registered holders of controlled copies of the plan.

The accuracy of technical information contained in informational annexes, which relates to individual Committee members, is the responsibility of each Committee member. Committee members and other parties to the plan should report to the Lead Agency, 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 Lead Agency will then be responsible for circulating such updates to all registered holders of controlled copies of the plan.