



**SOLOMON ISLANDS
SPILL CONTINGENCY PLAN**

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SPILL
CONTINGENCY PLAN**

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

The Plan 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,

Part A: The core plan text designed to provide key supporting information to assist with spill response operations and planning.

Part B: Appendixes & Annexes which contain Operational information for Oil Spill Planning, Preparedness & Response.



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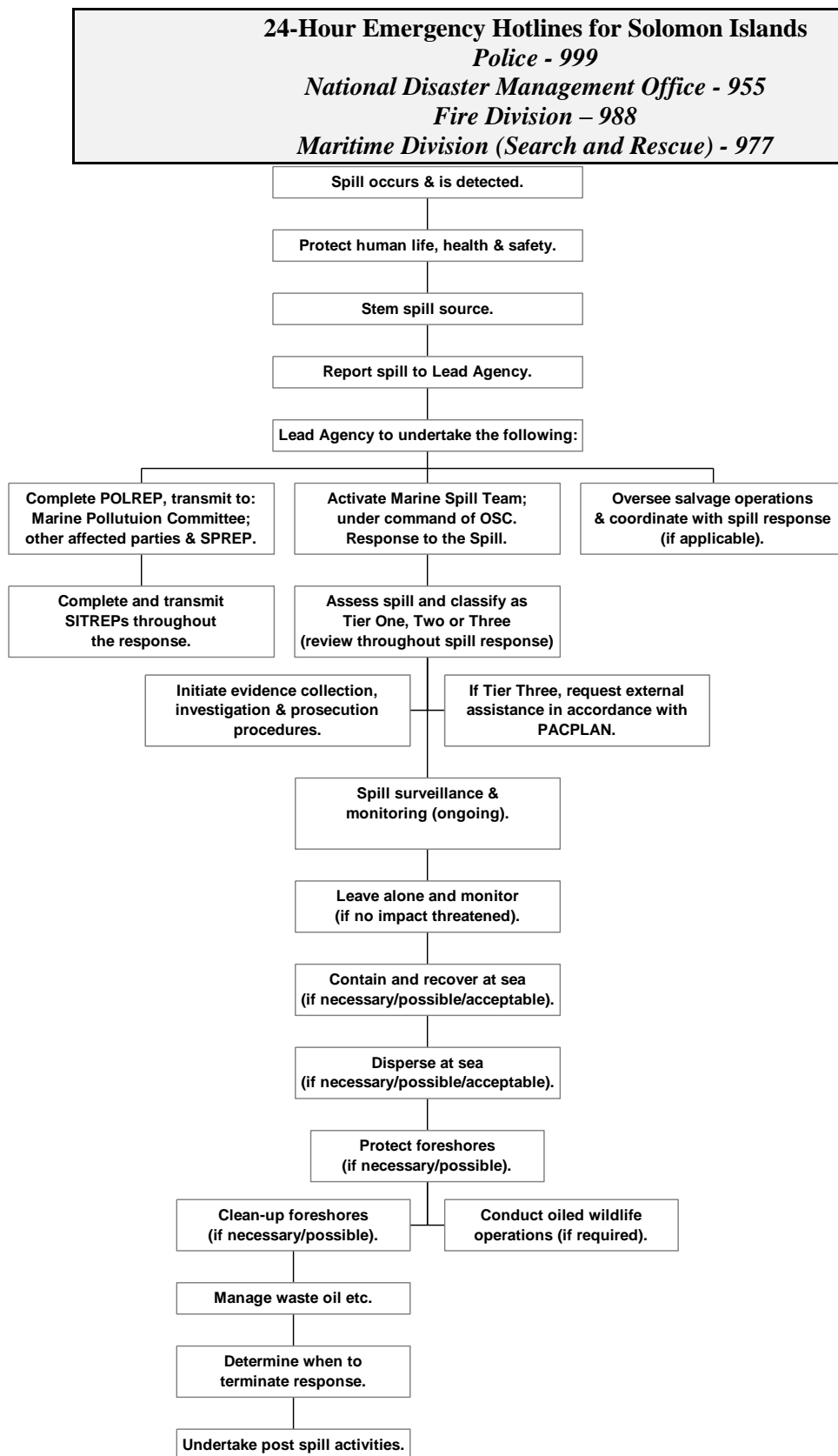
<i>Copy No.</i>	<i>Agency</i>	<i>Date Issued</i>	<i>Signature</i>
	Maritime Division		
	National Disaster Management Office		
	Solomon Islands Ports Authority		
	South Pacific Oil		
	Markwarth Oil		
	Department of Environment and Conservation		
	Gold Ridge Mine		
	GPP Oil		
	Tradco Shipping Agent		
	Sullivan Shipping Agent		
	SPREP – Marine Pollution Adviser		



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SPILL RESPONSE – ACTION CHECKLIST



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1. INTRODUCTION

1.1 Background

The Government of Solomon Islands has developed this Spill Contingency Plan as part of its commitment to protecting its valuable coastal and marine resources from the threat of pollution from spill incidents.

The Plan has been developed to reflect the essential steps necessary to initiate, conduct and terminate an emergency spill response on, or into Solomon Islands waters. The Plan extends to also address spill response to spill incidents on land.

While Solomon Islands is a party to 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)* but not a Party to the *International Convention on Oil Pollution Response, Preparedness and Cooperation 1990 (OPRC 90)* the Plan meets the objectives of these conventions and will facilitate the meeting of obligations should it become a party.

In the event of a pollution incident in Solomon Islands all government departments and agencies and other relevant parties, which operate within Solomon Islands, are required to follow the procedures laid down in this Plan.

1.2 Aim & Objectives

The Aims of the Solomon Islands Spill Contingency Plan is:

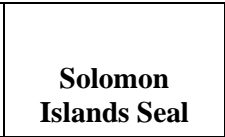
- To plan and provide for an appropriate response capability to prevent and minimize damage to the environment and resources as a result of pollution incidents.

The Objectives of the Plan are:

- Provide the basis of planning for pollution emergencies.
- To provide the organizational structure and procedures for the coordinated, timely and effective response to spills of oil and other hazardous and noxious substances (HNS).
- To provide systems for the detection and reporting of 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 minimize the environmental, economic and social impacts of a spill.
- To facilitate the implementation of the SPREP Pollution Protocol and OPRC 90 in Solomon Islands.
- To complement the Pacific Islands Regional Marine Spill Contingency Plan (PACPLAN).



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1.3 RESPONSIBILITY

Agencies having responsibility to ensure that response is made to oil spill incidents are:

The Harbour Master for all Oil Spills in waters inside the designated limits of the Harbours under their jurisdiction; and

The Maritime Division concerning oil spills in waters outside the Ports Harbour limits within SI's Territorial Sea and Exclusive Economic Zone (EEZ).

The lead agencies to take initial response action in the event of an oil spill incident (i.e. mobilise the initial ON SCENE COMMANDER) are:

inside harbour limits:

- at oil industry terminals
- elsewhere in harbour limits
- Terminal Manager;
- Harbour Master;

and

outside harbour limits:

- at platforms/suffrage ports
- elsewhere outside harbour limits-
- Operator;
- Maritime Division

1.4 Technical Scope & Tier One, Two and Three Spills

This Plan covers the response to spills into the 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 in Solomon Islands waters.

The Plan covers spills into the environment from all sources, including both shipping and shore-based facilities. While the primary focus is marine spills the plan also covers terrestrial spills.

For the purposes of this Plan, spills are classified as Tier One, Two and Three spills. Classification is dependant upon the amount of pollutant spilt, or likely to be spilt, the resources required to respond to the spill.

Tier One

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

Tier Two

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- Medium spills that are within the capability and resources of Solomon Islands and that occur within Solomon Islands waters. These spills would have a moderate potential for environmental and/or economic harm and are covered by this Plan.

<i>Tier Three</i>

- Major spills that are of a magnitude and/or severity that is beyond the response capability and resources of Solomon Islands, and/or
- That impacts or threatens to impact within the jurisdiction of both Solomon Islands and neighbouring country (ies) and,
- The spill has the potential to cause extensive local or regional environmental damage and loss of resources.

Tier Three spills are covered by this Plan 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 spills 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 Lead Agency.

Because in reality spills do not fall into convenient categories, the boundaries between Tiers will inevitably be blurred. The Lead Agency 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 Integration with Other Contingency Plans

This Contingency Plan is a sub-plan of the Solomon Islands National Disaster and Risk Management Plan as well as international support plans like PACPLAN. The plan will provide a framework within which local oil industry, site and port contingency plans will be implemented.

1.6 Geographical Scope

The geographical scope of NATPLAN, referred to hereafter as the NATPLAN Area, is the land area, all of the coastlines and all marine waters below highest astronomical tide within the 200 nautical mile Exclusive Economic Zone (EEZ) of the Solomon Islands.

1.7 Underlying Principles, Protection Priorities & Environmental Sensitivities

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

Mitigation: regulatory and physical measures to prevent incidents or mitigate the effects of the pollutant.

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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.

In the event of a spill requiring a response to be mounted under this Plan, the following order of protection priorities should be adhered to:

- Human life, health and safety.
- Protection of ecological habitat.
- Rare and endangered species.
- Cultural resources.
- Commercial resources.
- Non-commercial property and amenity.

1.8 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.

Port Facilities and Shipping

Ports in the Solomon Islands are administered by the Solomon Islands Ports Authority. The Solomon's main port of entry is Honiara. It has a 120 m deepwater berth with a depth alongside of 10 m. There is also a 52m bunkering jetty, however the working length of that jetty (with a depth alongside of 3.4 m) is only 25m.

Oil products are discharged to shore through a submarine pipeline on a Mediterranean mooring adjacent to the SPOL terminal.

There is another deepwater port at Noro, Western Province where petroleum products is discharged at the berth. At the Port of Gizo, Western Province it is a shallow water port and product is transported on a Local Coastal Tanker (LCT) and discharged via floating hose.

The Solomon Islands has regular shipping links with Australia, New Zealand, Hong Kong, Japan and Europe, as well as neighbouring Pacific island states. The Port of Honiara has around 144 international ship calls per year including 24 tankers (MRX). Port of Noro has 36 ship calls per year including 12 tankers. Port of Gizo has 6 LCT calls per year.

There is also significant movement and storage of product at logging sites/suffrage ports.

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Port	No. of tankers (MRX & LCT)	Volume
Honiara	24 (MRX)	
Noro	12 (MRX)	
Gizo	6 (LCT)	
Yandina	3 barges	

The Solomon Islands supports a substantial domestic trading and inter-island passenger fleet. It is expected that this fleet is very active and its operations widely dispersed, given the size of the population, the geographical spread of the nation and the number of islands that make up the nation. It is also assumed that these are mainly old and small vessels, of a few hundred tons at most.

The Solomon Islands permits access to its waters by a substantial number of FFVs, supported by 'motherships'. It is understood that motherships often remain at anchor for extended periods in coastal waters, undertaking a degree of processing of the catch.

In analysing the risk from such activities we have to take into account risks from ships, petroleum operations, land spills, environmental factors, and unique Solomon Islands circumstances. Using the Risk Assessment Matrix, the various scenarios can be ranked as High (H), Medium (M), and Low (L).

Risk of Collision – Low Risk.

This is a low risk factor in the Solomon Islands waters due to a combination of a lack of heavy ship traffic lanes and the fact that lanes that are more heavily trafficked is not congested or constrained. The almost universal use of radar and advanced navigation and communication equipment is another mitigating factor as is the increasing competence of crews.

Risks from Groundings – High Risk

The Solomon Islands have many off lying islands, unmarked shoals, rocks or shallows. This is the most likely area of risk and there have been several incidents with both large and small vessels over the years, which testify to the reality of this risk.

The main inter-island shipping route navigational aids are being upgraded and are well marked in parts. Most other parts are not well charted, surveyed and have no navigational aids. Navigation depends largely on local knowledge. The difficulties lie in the narrow entrances and crosswinds at Solomon Islands' harbours and landing places.

The risk mentioned above could be improved through improvement of navigational aids, maintenance of vessels, communications, and trained personnel.

Risks from WWII Wrecks – High Risk

Solomon Island have a number of WWII wrecks and derelict vessels. These wrecks are a potential source of oil pollution in particular around Iron Bottom Sound. In April 2007, there was an earth quake and resulting Tsunami that caused wide spread damage and loss of life particularly in the Western & Choiseul Provinces. There is an active volcano on Savo Island adjacent to Iron Bottom Sound. Earthquakes and other natural disasters could trigger leaks from WWII wrecks and derelict vessels.



Risks from Seaworthiness of Vessels and Crew Competence – Medium Risk

For the most likely spill candidates, the oil tankers arriving at Honiara from Singapore etc. there is no problem with seaworthiness or crew competence and they are all covered by P&I Club insurance. Some of these vessels may use heavy fuel oil, which could marginally increase spill risk

Longline fishing boats are generally seaworthy and crew competence is variable but generally acceptable. The fishing vessels tend to act quickly to help each other out in the event of a problem and carry relatively low levels of potentially polluting spill materials.

The situation changes when looking at the local cargo vessels, as there are some real issues with the importation of second hand vessels that are not in good condition. There is particular concern over the suitability and fitness of barges to carry fuel as cargo in the barge tanks. The lack of enforcement and implementation of standards on these vessels by authorities make them potentially hazardous, not only for spills but also for general navigation. There needs to be strengthening of enforcement of the various regulatory requirements through capacity building.

The spill risk could be reduced if these inter island trading vessels were to maintain a quantity of Sorbent materials on board, and store them in an approved manner to prevent deterioration. Pressure should also be applied to the operators to try and raise their standards of survey and crew compliance. There is a mitigating factor in that these vessels are only likely to create minor Tier One spills.

Risk from Environmental Factors (weather, tides, severe weather events) – Low Risk

Tides are less than 1 metre so presents little or no hazard. Cyclones average 4 per year in the Solomon Islands area but good warnings are usually available, therefore spill risk is minimal as long as vessels follow prudent and accepted practices (i.e. leaving harbour and lying in the lee of islands). Storm surges do threaten petroleum industries and tank farms along the coast.

Risk from Petroleum Facilities and Tank Farms – Low Risk

This risk is reasonably well contained by the oil facilities themselves, although evidence suggests that both South Pacific Oil and Markwarth tank farms are at considerable risk in the event of cyclones. A major cyclone would almost certainly cause more devastation. However, in such an event other disaster response issues would be prioritised over any oil spill. Unless terminals are relocated inland, there are few steps available to be taken to appreciably reduce risks.

Risk from Discharge Pipelines – Medium Risk

The Oil Companies use a submarine hose and pipeline to discharge/load cargo. This is a medium risk potential for spill and needs good asset management to ensure hose and pipeline integrity.

The tanker mooring is a designated area under the ISPS security plan. This means that there is restricted access for any unauthorised vessels.

Specific Risk Factors for Outer Islands – Low Risk

The Outer Islands of the Solomon Islands are largely free of high-risk activities, as on most of the islands potentially polluting substances are transferred to shore in sealed 200 litre drums, which present a minimal risk of spill incidence and volume. Environmental resources in the outer islands

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are at greater risk because their harbours, lagoons, and landing places, are less developed with greater biodiversity and more pristine natural marine ecosystems. Risks could be mitigated if any vessels delivering petroleum products to outer islands have on board sufficient absorbent materials to handle minor spills from leaking drums.

1.9 Types of Petroleum Products and Chemicals in Solomon Islands

The following petroleum products are stored and transported in Solomon Islands:

- Diesel
- Gasoline
- Kerosene/Jet A1 (Dual Purpose Kerosene - DPK)
- Lubricating Oils

There is also bulk storage and transportation of palm oil.

There is no bulk transportation or storage of chemicals in Solomon Islands. (Check whether new mines will bring in any)

2. ROLES & RESPONSIBILITIES

The proclamation of an Emergency is the prerogative of the Minister responsible for the National Disaster Council of Solomon Islands. In this event, the Cabinet is to be informed as soon as practicable.

2.1 National Disaster Council of Solomon Islands

The National Disaster Council of Solomon Islands is constituted by the National Disaster Council Act of 1989. The Council is responsible for coordination of all national disaster related activities including disaster prevention; preparedness, response and recovery. The National Disaster Management Office is the Secretariat to the Council and is responsible for executing all its directions and decisions.

The Disaster Council consists of:

- Permanent Secretaries of the Department of Home affairs (Chair);
- Secretary to Cabinet;
- Permanent Secretaries of the Department of Foreign Affairs;
- Permanent Secretaries of the Department of Finance and Treasury;
- Permanent Secretaries of the Ministry of Health;
- Permanent Secretaries of the Department of Provincial Government;
- Permanent Secretaries of the Department of Communications;
- Permanent Secretaries of the Department of Works;
- Commissioner of Police;
- And any other co-opted member as necessary.

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Under the disaster management act the disaster council may establish sub-committees. The sub-committee responsible for marine oil spill response is called the National Oil Pollution Committee and will consist of:

- Director for Maritime – chairperson;
- Director of National Disaster Management Office;
- Director of Fire Services;
- Director for Environment;
- General Manager Ports Authority;
- General Manager South Pacific Oil Limited;
- General Manager Markwarth Oil Limited;
- And any other co-opted member as necessary.

The committee shall meet at least quarterly in a year (every three (3) months). The committee shall be tasked to set out an action plan including forming appropriate legal instruments, acquire funds for running of this committee (usually by a pollution levy), holding regular Oil Spill Tier II, III exercises and the purchase of oil spill equipment. The Chair of the National Oil Pollution Committee shall be the Lead Agency.

The committee shall be responsible for the fulfilment of the action plan and to make recommendation to the National Disaster Council for amendments to the NATPLAN and recommended equipment to be purchased.

2.2 Responsible Authority

The National Disaster Council is the Responsible Authority for all emergencies in the Solomon Islands including that due to spills on land, the coastal and marine environments within Solomon Islands waters under the NDC Act of 1989.

The Responsible Authority has legal or statutory responsibility for administering and enforcing the regulatory requirements in the event of spills.

2.3 Lead Agency.

The Lead Agency has operational responsibility for the co-ordination of the response to spills. The Lead Agency designates the Incident Controller (IC).

The Maritime Division is the Lead Agency for all spills in Solomon Islands waters. The Incident Controller for Marine Spills is Director of Maritime.

The Police Department (Fire Service) is the Lead Agency for land-based spills. The Incident Controller is Chief Fire Officer.

2.4 Other Government Agencies

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

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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.
- Taking immediate action to clean up the spill.
- Co-operating fully with the Lead Agency in the response to the spill under the direction of the Incident Controller (IC).
- 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 Role of P&I Clubs

In the case of marine spill, 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 role 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 and will be a valuable conduit for information flow.

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2.7 Oil Industry

All oil companies operating in the Solomon Islands have the following roles 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 spills from their facilities to the Responsible Authority or Lead Agency.
- Developing and maintaining local 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 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 spill prevention and response.
- In the event of a spill from its facilities, the roles and responsibilities outlined in section 2.5 above.
- Actively participating in the National Oil Pollution Committee and in planning, exercises and training activities.



3. POLLUTION REPORTS & COMMUNICATIONS

3.1 Surveillance & Spill Detection

All 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 *International Convention for the Prevention of Pollution from Ships (MARPOL 73/78)* 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)

Recognizing the importance of rapid dissemination of information in the event of a spill, any person observing a spill including any ship's master or crew, aircraft crew, oil company employee, port personnel should immediately report the spill to the Responsible Authority.

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 Hotlines for Solomon Islands

Police - 999

National Disaster Management Office - 955

Fire Division – 988

Maritime Division (Search and Rescue) - 977

The Lead Agency should assess the implications of the situation and make a decision on whether any response is likely to be required. The Lead Agency must also consider whether other parties need to be made aware of a potential pollution situation if operational personnel need to be placed on standby.

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

3.3 Situation Reports (SITREPS)

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In order to provide periodic updates on pollution incidents, the Lead Agency should complete SITREPs, using the standard format contained in Appendix Two. These SITREPs should be frequently compiled from field information and transmitted to all members of the Council, 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 the State Plan.

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

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. The Media Officer is responsible for all media issues. For each incident the incident controller will designate a Media officer.

3.6 Pacific Islands Regional Marine Spill Reporting Center (PACREP)

In the case of marine spills, SPREP has established and maintains the Pacific Islands Regional Marine Spill Reporting Center (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.

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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. All spills within Solomon 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 an Incident Controller,
- Mobilizing the 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 Structure

Response operations cannot be effectively carried out unless there is a clear organizational 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 spill on land or within Solomon Islands waters, a Spill Response Team based on this structure should be immediately established by the designated Lead Agency. The number and nature of the individual sections and units should be flexible and tailored to suit the size and nature of the spill. Several functions may be combined for small spills.

The IC 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 Command Structure (OSRICS). While originally designed to apply to oil spills it is equally applicable to all types of spills and is used in this Plan in that context.

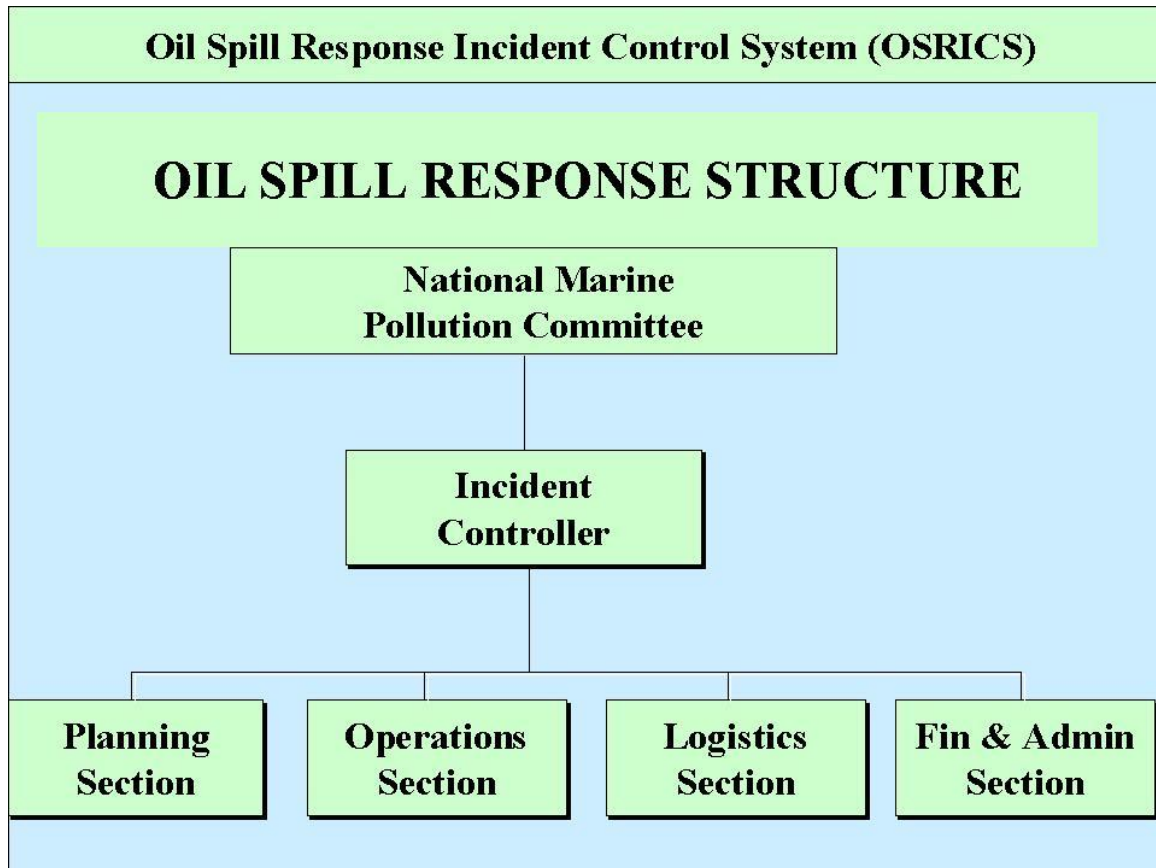
4.2.1 Incident Controller

Incident Controller (IC): The Superintendent of Marine is designated as the IC for all spills in Solomon Islands waters. The Chief Fire Officer is the IC for spills on land.

In the event of a 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 state government invests the IC with the authority necessary to command all state assets and resources as deemed necessary to deal with the incident.

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

Figure 5: Oil Spill Response Incident Control System



The responsibilities of the various roles within the Spill Response Team can be summarized 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. The Incident Controller is responsible for the Incident Action plans.
- ◆ **Operations Section** - responsible for undertaking all response operations in the field. The Incident Controller is responsible for operations.
- ◆ **Logistics Section** - responsible for the provision of resources to sustain the response. The Director of the National Disaster Management Office is responsible for logistics.
- ◆ **Finance & Administration Section** - responsible for maintaining financial and administrative records of the response activities. The Director of the National Disaster Management Office is responsible for Finance and Administration.



5. RESPONSE ACTIONS & OPERATIONS

The ecological impact of oil, fuel, and chemical or hazardous substance spill can be minimized 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 weather and where applicable sea conditions at the spill site;
- The environmental sensitivity of the impacted sites.

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

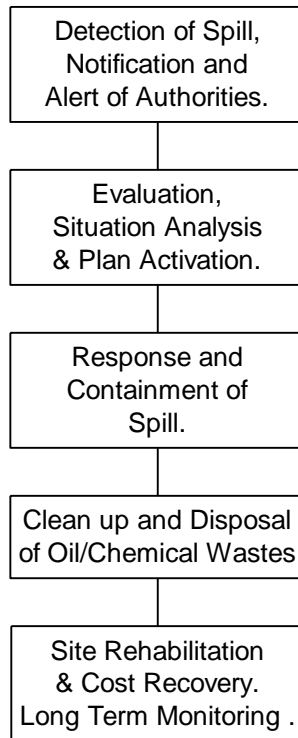
To ensure that these actions are taken, the IC should delegate relevant tasks to the Spill Response Team. To assist in this process a Spill Response Action Checklist at the front of the Plan summarizes this sequence.

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 summarized 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.

Each 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 spill response situations, equipment or personnel should not 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

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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. Stabilising 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.

Becoming a party to the Intervention Convention would permit Solomon Islands to intervene on the high seas when there is a threat of pollution. 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 be undertaken as soon as possible

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

The vessel's owner or master will normally appoint a salvor by signing a Lloyds Open Form Agreement. However, in cases where this does not occur, the Director of Maritime may use its powers under the Shipping Act No. 5 of 1998, 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 Oil Pollution Committee, other affected/interested parties and SPREP.



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The responsible authority on the advice of the National Oil Pollution Committee is responsible for the assessment of the spill and to classify it as Tier One, Two or Three (refer section 1.3). 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,
- Computer modelling.

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

Meteorological and hydrological data should be obtained by the IC, 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 be transmitted to other parties likely to be affected by the spill (e.g. neighbouring 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 IC 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,
- Relative cost compared to other options.

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

- Clear environmental objectives for the plan (e.g. 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.



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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 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 might impact on coastlines, the possibility of containing and recovering the oil at sea to prevent such impact should be pursued.

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.

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 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 in appendix 7).

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 the Solomon Islands waters the National Oil 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.



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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, where it can be recovered.

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.

In the event of a spill outside Honiara Harbour it may be possible to direct much of the spill into the harbour through the use of booms and natural currents. This would be particularly viable in the event of a spill on the eastern side of the coast from the harbour. Once inside the harbour there would be minimal environmental impact and collection and disposal more easily effected. Towed booms could be effective along the coast if weather cooperated and there were available vessels and booms.

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 that 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 mobilisation of equipment



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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

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). Also that wastes collected are kept to a minimum to avoid costly waste disposal and loss of foreshore materials and biota.

Equipment such as the following can be used on foreshore cleanup operations if available.

- Rope mops
- Sorbents materials and booms
- Skimmers
- Direct suction equipment (vacuum trucks)
- Water flushing equipment
- Other mechanical equipment etc.

5.12.1 Coastal Swamps and Mangroves

Coastal swamps and mangroves are very fragile and important ecosystems and a high level of protection should be placed on these coastal environments.

- Oil should be prevented from entering coastal swamps by using dispersant on marine spills well off-shore;
- Booms should be deployed so as to restrict flow of oil into the mangrove area;
- Oiled swamps should not be cleaned unless:
 - Access is readily available and sediment is firm;
 - The mangroves do not have aerial roots (pneumatophores)
- Seek expert environmental advice before using dispersant on or near mangroves;
- Manually clean up mangrove areas must be strictly supervised.

5.13 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.

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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.

5.14 Oiled Wildlife Operations

It is possible that wildlife will become contaminated in the event of a spill, including sea birds and shorebirds, reptiles (e.g. nesting turtles) and mammals. The likelihood of wildlife becoming contaminated in the Solomon Islands is relatively low and would probably consist of fairly small numbers of affected species.

5.15 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 e.g. 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 e.g. birds.

The collection and disposal of oily waste in smaller quantities would normally be in 200 litre drums, available at the Oil Companies. There are also Tanktainers of 25000 litre capacity available that can be used to contain larger quantities.

Currently there are no disposal facilities to cater for oily waste. Therefore waste thus collected would be kept in storage for disposal either through export or other locally approved methods.

5.17 Chemical Spills/HAZMAT Response

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

However, technical details within NATPLAN relate primarily to 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 under PACPLAN and MOUs.



6. EXTERNAL ASSISTANCE

Arrangements for external assistance to spills are currently limited to marine spills.

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

The Solomon Islands National Government SPREP and PACPOL Focal Point hold controlled Copies of PACPLAN.

When 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 state and national levels to respond to pollution incidents.
- 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.

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- 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, roles and responsibilities of relevant organizations, regional and international linkages and mechanisms for accessing regional and international assistance. Below are the primary and secondary responder responsibilities under PACPLAN. The Primary responder responsible for Solomon Islands is Australia.

Primary and Secondary Sources of Assistance - Divisions of Responsibility

Assistance Provider	Primary source of assistance for:	Secondary source of assistance for:
Australia	Nauru, PNG, Solomon Islands, Tuvalu, Vanuatu, Kiribati	FSM, Fiji, Guam, New Caledonia, Northern Mariana, Palau, Tonga
France	French Polynesia, New Caledonia, Wallis & Futuna	Cook Islands, Marshall Islands, Niue, Vanuatu
New Zealand	Cook Islands, Fiji, Niue, Tokelau, Tonga	American Samoa, Nauru, PNG, Samoa, Solomon Islands, Wallis & Futuna
USA	American Samoa, FSM, Guam, Marshall Islands, Northern Mariana, Palau Samoa	French Polynesia, Kiribati, Tokelau, Tuvalu

6.2 Other Mutual Aid Arrangements

It is recommended that South Pacific Oil Limited, Markwarth Oil Limited and Solomon Islands Ports Authority become associate members of the Australian Marine Oil Spill Centre (AMOSC) where they will be covered through AMOSC's Tier 3 spill arrangements.

Most merchant vessels will carry P&I Club insurance. All shipping agents should be aware of what P&I Clubs cover their vessels and who their P&I Club Correspondent are. The P&I Club is one of the first contacts that need to be made when the spill is from a vessel. It is recommended that a register be kept with the name of all vessels frequently coming in to Solomon Islands Ports or transiting Solomon Islands Waters and details on their P&I Club and Correspondents.

National Oil Pollution Committee to facilitate the process in case of external assistance through these private arrangements.



7. RESPONSE TERMINATION & POST-SPILL ACTIVITIES

7.1 Response Termination

In any 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 Spill Response Team and the members of the National Disaster Council, 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 Oil Pollution Committee for action.

7.4 Damage Assessment & Monitoring

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

- Ecological damage.

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- 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 under the direction of the National Disaster Council, 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, 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.

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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, which 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

Pollution response is to be undertaken according to the “Polluter Pays Principle.” It is the responsibility of the Responsible Authority to as far as practicable ensure that the costs of the spill response and any monitoring and remediation activities are borne directly or recovered from the polluter.

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 utilized both to support cost recovery, claims for compensation and for subsequent analysis of actions taken during the pollution incident, in order to upgrade the Plan.

The IC through the 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.

For marine spills it is the responsibility of the Responsible Authority to initiate cost recovery actions direct with the polluter’s representative, e.g. 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.

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9. EQUIPMENT

In general, the oil industry, ports and power stations 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.

In the Solomon Islands the equipment is co-owned by Markwarth Oil Limited & South Pacific Oil Limited (SPOL). The equipment is stored on Ports Authority land and maintained by SPOL. There is an arrangement for access to the equipment by Ports Authority. There is currently no formal arrangement for access and use by other parties.



10. TRAINING & EXERCISES

Training of key personnel is an essential component of contingency planning and preparedness. All personnel involved in spill response should have as a minimum health and safety training. Ideally they should have sufficient training to fully understand their responsibilities during a spill response, be capable of operating all equipment and performing all duties allocated to them in a safe, timely, efficient and environmentally safe manner.

Drills will be conducted at sea or on-site using the resources that would be used in an actual spill. Hands-on experience with clean up equipment and techniques will be used where practical.

Types of exercises to be considered include:

- Deployment of selected equipment (as in a training exercises);
- Call-out of personnel who would be involved or contacted during a spill event (including other government department officers, port and harbour personnel, oil industry company personnel, etc.); and
- Full scale exercises.

A state spill response exercise/drill should be held at least on an annual basis. Such exercises should be joint government/oil industry activities and seek to further develop government/industry integration. Responsibility for organizing these on-island exercises rests with the Council. SPREP can provide technical advice and assistance in the development, conduct and monitoring of these exercises.

11. APPLICABLE LEGISLATION, ENFORCEMENT & PROSECUTION

In the Solomon Islands, marine spill response is enabled under the Disaster Management Council Act 1989.

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.

	SOLOMON ISLANDS SPILL CONTINGENCY PLAN	Solomon Islands Seal
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12. APPROVAL, CONTROL & REVISION OF THE PLAN

12.1 Approval of the Plan

The Plan will be approved pursuant to the Disaster Management Council Act 1989.

12.2 Control of the Plan

The Plan will be a controlled document under the direction of the Responsible Authority. Full contact details for all holders of controlled copies of the Plan 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

Any member of the Council may submit proposed revisions to the Plan. Any proposed revision of the Plan PART A, shall be considered and requires approval by the Disaster Management Council of Solomon Islands. The Responsible Authority will then be responsible for circulating such updates to all registered holders of controlled copies of the plan.

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

	SOLOMON ISLANDS SPILL CONTINGENCY PLAN	Solomon Islands Seal
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PART B APPENDICES

Appendix 1: MAPS including Site Sensitivity Area Charts.

Appendix 2: Risk Assessment

Appendix 3: Report Forms - Standard Pollution Report (POLREP)& Standard Situation Report (SITREP)

Appendix 4A: Equipment Inventory

Appendix 4B: Available Resources listed by company/department

Appendix 5: Investigation and Sampling Guidelines

Appendix 6: Oil Product Specifications in Solomon Islands

Appendix 7: SPREP Dispersant Use Guidelines

Appendix 8: Scenarios & Action Plan.

Appendix 9: Media Plan

Appendix 10: Contact List