

Front Cover



SURF LIFE SAVING NEW SOUTH WALES

VERSION CONTROL

The record of changes to the
Tsunami Response Plan is outlined below:

Version Number	Author	Approved by	Date	Reason/Comments
1	Dean Storey		July 2007	Initial Development
2	Chris McCaskie		October 2010	Updates from NSW SES
3	Bernard Utteridge		June 2015	Full Review

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LIST OF ABBREVIATIONS

The following abbreviations have been used in this plan:

ATWS	Australian Tsunami Warning System
BoM	Australian Government Bureau of Meteorology
BDO	SLS Branch Duty Officer
DOL	SLS Director of Lifesaving (NSW)
EOC	Emergency Operations Centre
EMPLAN	State Emergency Management Plan
JATWC	Joint Australian Tsunami Warning Centre
JMIC	Joint Media Information Centre
LG's	Lifeguards
LGS	Lifeguard Service
MAC	NSW Police Marine Area Command
NSW	New South Wales
PC	Patrol Captain
REMC	Regional Emergency Management Committee
SAR	Search and Rescue
NSW SES	NSW State Emergency Service
SLG	Supervisor Lifeguards
SLS	Surf Life Saving
SLNSW	Surf Life Saving New South Wales
SLNSW CEO	SLNSW Chief Executive Officer
SOC	SLNSW State Operations Centre
SDO	SLNSW State Duty Officer

Part 1 - Introduction

PURPOSE

This supporting plan covers the arrangements for SLSNSW response to tsunami events as a support agency to the NSW SES.

AUTHORISATION

The NSW SES is the combat agency for tsunamis in NSW.

The SLSNSW Tsunami Response Plan has been developed in accordance with the NSW State Tsunami Plan 2015, and outlines the roles and responsibilities of SLSNSW in supporting NSW SES tsunami operations.

REFERENCES

The following agencies have been consulted in the development of this response plan and can be contacted for additional information:

- NSW SES; and,
- NSWPF.

The following plans and documents have been researched in the development of this response plan:

- NSW State Emergency Management Plan (EMPLAN) December 2012;
- NSW State Tsunami Plan 2015;
- SLSNSW Standard Operating Procedures (Lifesaving Services – V3, 2012); and,
- Surf Life Saving Australia Policy Statement Tsunami Policy 1.16 July 2009.

SCOPE

This plan deals with the response of SLSNSW and the Australian Lifeguard Service Pty Ltd upon the activation of the NSW Tsunami Emergency Sub Plan.

It should be read in conjunction with the:

- a. NSW State Tsunami Plan 2015;
- b. SLSNSW Standard Operating Procedures (Lifesaving Services – V3, 2012); and,
- c. Surf Life Saving Australia Policy Statement Tsunami Policy 1.16 - July 2009.

AREA COVERED BY THE PLAN

The plan covers the NSW coastline, from Flagstaff/Duranbah Beach, Tweed Heads (northern point) to Aslings Beach, Eden (southern point). This plan does not cover Lord Howe Island as there are no SLS assets.

TSUNAMI AND THE POTENTIAL EFFECTS IN NSW

Although rare in occurrence, tsunami can impact the NSW coast.

Exposed to the open ocean, where tectonic activity with the potential to generate tsunami exists, the impact of a significant tsunami on the NSW coastline would be widespread and destructive.

Part 2 - Responsibilities

SLSNSW as a defined 'supporting agency' shall be responsible for the following, as outlined in the *NSW State Tsunami Plan 2015 – Section 2.34*

- a. Contribute to Tsunami community engagement and capacity building programs.
- b. Assist the NSW SES with the dissemination of warnings.
- c. Close and evacuate beaches on receipt of a NSW Tsunami Warning or upon observation of unusual ocean behavior indicative of a tsunami, in consultation with Local Government Councils.
- d. Assist with the rescue of people from the impact zone following the impact of a Tsunami.
- e. Notify the NSW SES when unusual ocean behavior indicative of a Tsunami is observed or a tsunami has occurred for which there has been no prior warning.

INTERNAL (SURF LIFE SAVING) RESPONSIBILITIES

Preparedness

- Develop and maintain this plan;
- Support the training/education of lifesaving personnel regarding Tsunami operations;
- Facilitate and communicate relevant procedures and protocols to lifesaving personnel and services; and,
- Evacuation Planning – SLS internal preparedness.

Response

- Disseminate warnings and instructions to the Emergency Services Officer of lifesaving events/carnivals/competitions;
- Assist the NSW Police Force with search and rescue operations; and,
- Provide situation reports incorporating the activities of SLS services.

Recovery

- Coordinate the conduct of after action reviews / debriefs following tsunami operations.
- Participate in recovery committees as required.

Task	Who may assume (best person)	Action
State wide coordination	SLSNSW State Duty Officer	<p>Provide 'Situation Reports' and 'Media Releases' (SITREPS).</p> <p>Request SLSNSW State Operations Centre be activated.</p> <p>Assume communications control of operations (where practicable – i.e. SOC) and monitor the situation.</p> <p>Advise NSW SES & other agencies at State level, particularly the NSW Police VKG/Marine Area Command.</p> <p>Assist and or provide SITREPS and assist as able with information to the Media Manager.</p> <p>Acquire and coordinate dissemination of information to both internal and external support resources as appropriate.</p> <p>Will assume the position of 'Incident Commander' in their absence (SLSNSW/ALS).</p>
SLSNSW State Operations Centre	SLSNSW State DOL Lifesaving Manager Lifesaving Officers Duty Operations Coordinator	<p>Attend State Operations centre (where practicable).</p> <p>Brief SLSNSW CEO and President.</p> <p>Post Event debrief (state level).</p>
SLSNSW State operational representation	SLSNSW Liaison Officer Communications Officer	<p>Attend NSW SES HQ (where practicable).</p> <p>Advise NSW SES & other agencies at State level, particularly the NSW Police VKG/Marine Area Command.</p>
SLSNSW Media Spokesperson	SLSNSW Lifesaving Manager Media and Communications Manager State DOL	<p>Attend SLSNSW SOC (where practicable).</p>

Task	Who may assume (best person)	Action
<p>Regional EOC representation & operational coordination</p>	<p>SLSNSW Branch DOL Branch Duty Officers REMC representatives</p>	<p>Advise and establish liaison arrangements with their Branch Duty Officer (or delegate), Lifeguard Supervisor, SurfComs, other emergency services and participating organisations.</p> <p>Establish a joint response plan with other organisations/agencies – setting clear tasks/goals/milestones and always considering risk/safety.</p> <p>Liaise with or act as the Incident Commander (Lifesaving Services).</p> <p>Liaise with the Incident Controller (NSW SES/NSW Police).</p> <p>Arrange to provide logistic/operational support for out-of-area group.</p> <p>Maintain constant communications and SITREPs with SLSNSW State Operations Centre.</p> <p>Activate and assume ‘command’ of their lifesaving operations.</p> <p>Advise other agencies of their requirements for support and arrange that support and establish appropriate on-site liaison.</p> <p>Liaise with other onsite agency Incident Commanders and personnel.</p> <p>Maintain constant communications with Incident Commander (lifesaving services).</p> <p>Post event debrief (regional level).</p>
<p>Local EOC representation & operational coordination</p>	<p>SLSNSW Branch Duty Officers Lifeguard supervisors Lifesaving services</p>	<p>Advise and establish liaison arrangements with their Incident Commander (Duty Officer/Supervisor), SurfCom, other emergency services and participating organisations.</p> <p>Establish a joint response plan with other organisations/agencies – setting clear tasks/goals/milestones and always considering risk/safety.</p> <p>Commence operations.</p> <p>Call for assistance from Branch Duty Officer and/or Lifeguard Supervisor if required.</p> <p>Maintain constant communications and SITREPs with Branch Duty Officers and/or Lifeguard Supervisor.</p> <p>Post event debrief (local service).</p>

Part 3 - Preparedness

PLANNING

The SLSNSW Lifesaving Manager will maintain the currency of this plan by:

- a. Ensuring that all volunteer lifesaving services and Australian Lifeguard Services Pty Ltd employees are aware of their roles and responsibilities.
- b. Participating in exercises to in line with NSW SES to test arrangements.
- c. Reviewing the contents of the Plan:
 - After each tsunami operation;
 - After a tsunami response exercise;
 - After changes in the knowledge of tsunami risk affecting NSW;
 - When there are changes which alter agreed plan arrangements; and
 - In any event, the Plan is to be reviewed no less frequently than every five years.

COMMUNITY ENGAGEMENT

SLSNSW will contribute to and help deliver tsunami awareness and education programs as required at the request of NSW SES.

EVACUATION PLANNING

Evacuation sites will need to be located on high ground and away from the coast to ensure lifesaving services are not directly at-risk and that they are well outside of any potential area of risk.

This will typically mean an area 1 kilometre from the coast and/or above ten metres above sea level.

Specific evacuation arrangements for individual localities are to be developed within SLSNSW Patrol Operations Manual.

Lifesaving service evacuation plans should provide an estimate of the time required to evacuate tsunami risk areas. These estimates should account for seasonal variations in population.

Part 4 – Response

Concept of Operations

OPERATIONAL OBJECTIVES

The operational objectives of this plan are:

1. Protection of life (highest priority); and,
2. Minimise interruption to lifesaving services and/or re-establish lifesaving services as soon as possible.

PRINCIPLES OF OPERATIONS

The NSW SES is the designated ‘combat agency’ for tsunami events. The NSW SES is assisted in this role by other supporting and participating agencies as outlined in the NSW State Tsunami Plan 2015.

SLS services response operations are coordinated by the SLSNSW State Duty Officer under advisement of the NSW SES to meet the operational objectives listed above.

The SDO will coordinate the dissemination of mandatory instructions and information on behalf of the NSW SES to NSW Council Lifeguard Services.

This plan can only be activated by the SDO or SLSNSW Lifesaving Manager upon confirmation from the NSW SES of a tsunami threat to NSW.

SEQUENCE OF OPERATIONS

The response phase consists of the following activity periods:

PRE-IMPACT:	Begins when a tsunami watch or warning is issued. Distant or regional tsunami impact will be preceded by a period of several hours to almost a day depending on the distance of generation from the NSW coastline. Locally generated tsunami may not be preceded by a period of notification and could arrive at the initial point of impact with little or no warning.
IMPACT:	Likely to last several hours and be characterised by a series of separate waves. Operations during this phase may be limited for safety of members.
IMMEDIATE POST IMPACT:	Commences upon the issue of a tsunami warning cancellation indicating that the destructive potential of the tsunami has ceased.

SLS Actions (NSW State Tsunami Plan 2015)

PHASE	ACTION	COMBAT AGENCY
PRE IMPACT	Warning and evacuation of threatened communities and waterways to safe areas.	NSW SES
IMPACT	Detection of impact by means other than tide gauges or tsunami buoys.	NSW SES
	Continued warning and evacuation of threatened communities and waterways to safe areas (during period of successive waves).	
	Search and rescue of people from the sea and estuaries.	NSWPF
IMMEDIATE POST IMPACT	Search and rescue of people from the sea and estuaries.	NSWPF

End of response operations

Response operations will conclude once all of the following conditions have been met:

- Physical tsunami impact has ceased;
- The need for warning and evacuation no longer exists;
- There is no further prospect of rescuing people trapped by the tsunami waves or their destructive impacts; and,
- Response to fire and hazmat incidents have concluded (not including subsequent clean-up of contaminated sites).

Recovery for SLS services

- Recovery includes the process of returning affected Surf lifesaving services to their proper level of functioning after a tsunami.
- Preparation for recovery will begin during the pre-impact period. Recovery operations will begin concurrently with impact period response operations.

Communication

- SLSNSW uses the Public Switched Telephone Network (PSTN) as the primary means of communication between State, Branch, Clubs and Council Lifeguard services.
- SLSNSW also uses mobile telephone to supplement the PSTN.
- SLSNSW operates its own Coastal Radio Network where it provides coverage on UHF (Ultra High Frequency) systems in the 400MHz frequency range.
- All radio communications will be as per the SLSNSW SOPs for radio communications (LS 07 Radio Communications) unless otherwise advised by the SDO or Local Police Incident Controller on-scene.

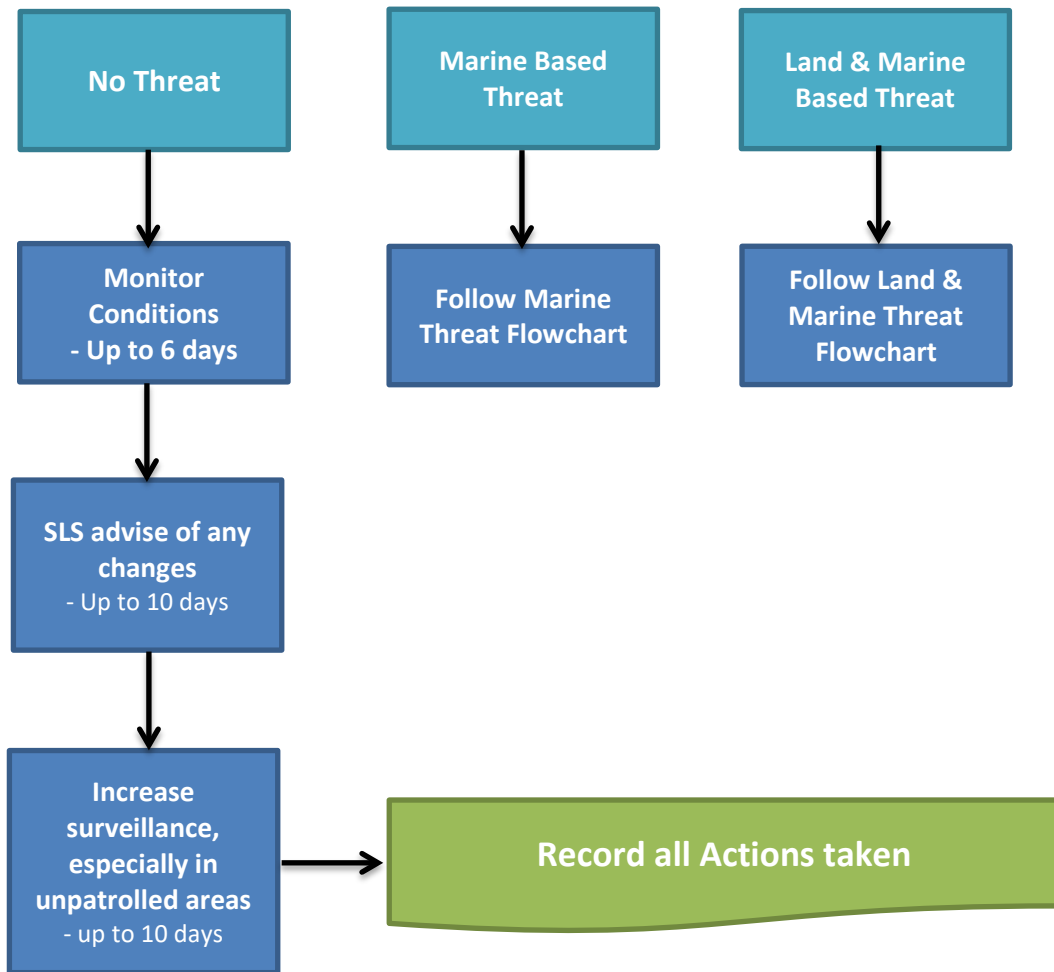
Operations Centres 'SurfComs'

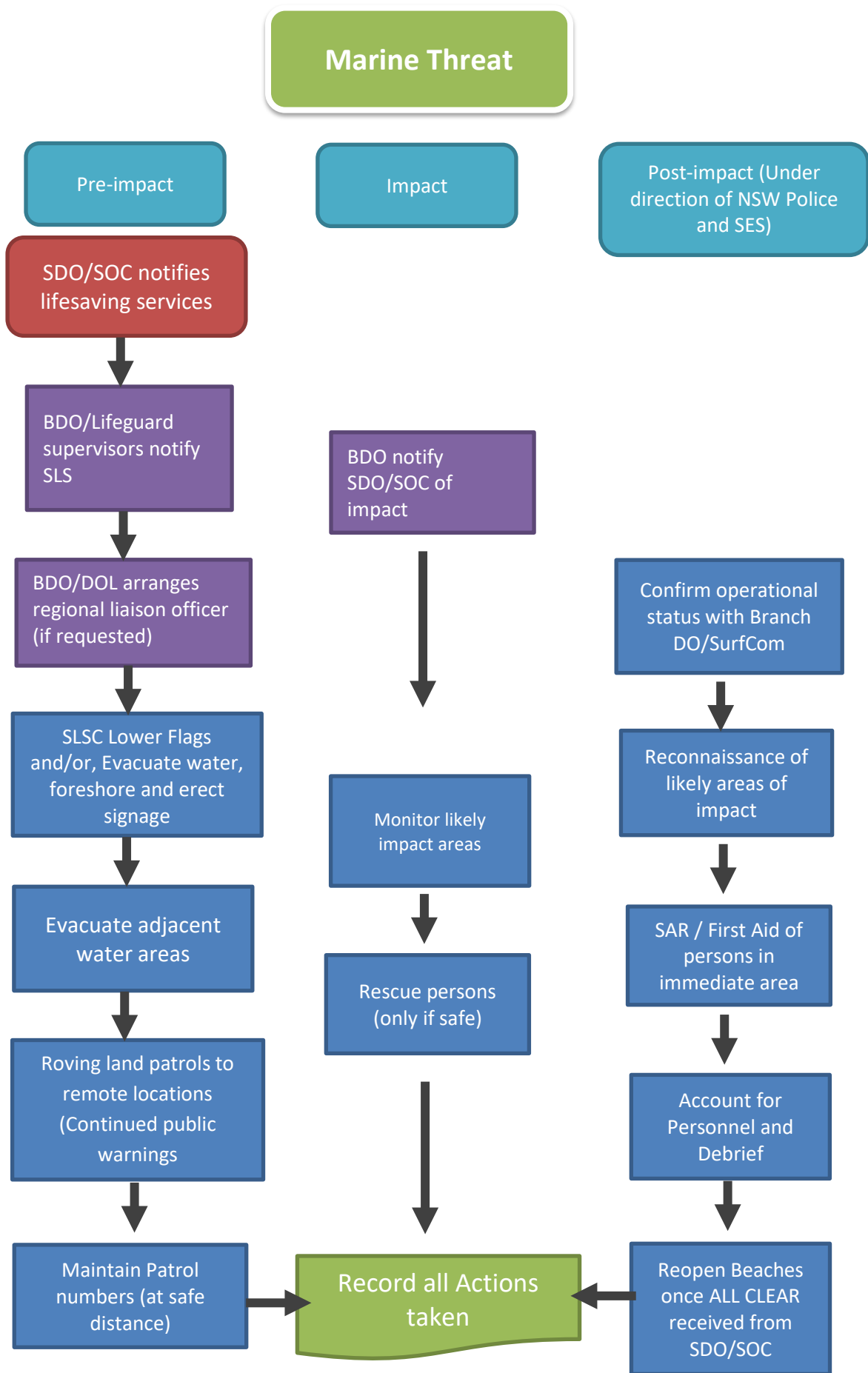
The SOC will be activated on receipt of a Tsunami warning from the NSW SES. SLSNSW SurfCom at Fisherman's Beach, Collaroy shall be evacuated if a land inundation warning is issued. All SurfComs shall have an evacuation plan in the event that they need to move their operations due to safety reasons. All plans shall be provided to SLSNSW.

Westpac Lifesaver Rescue Helicopter Services

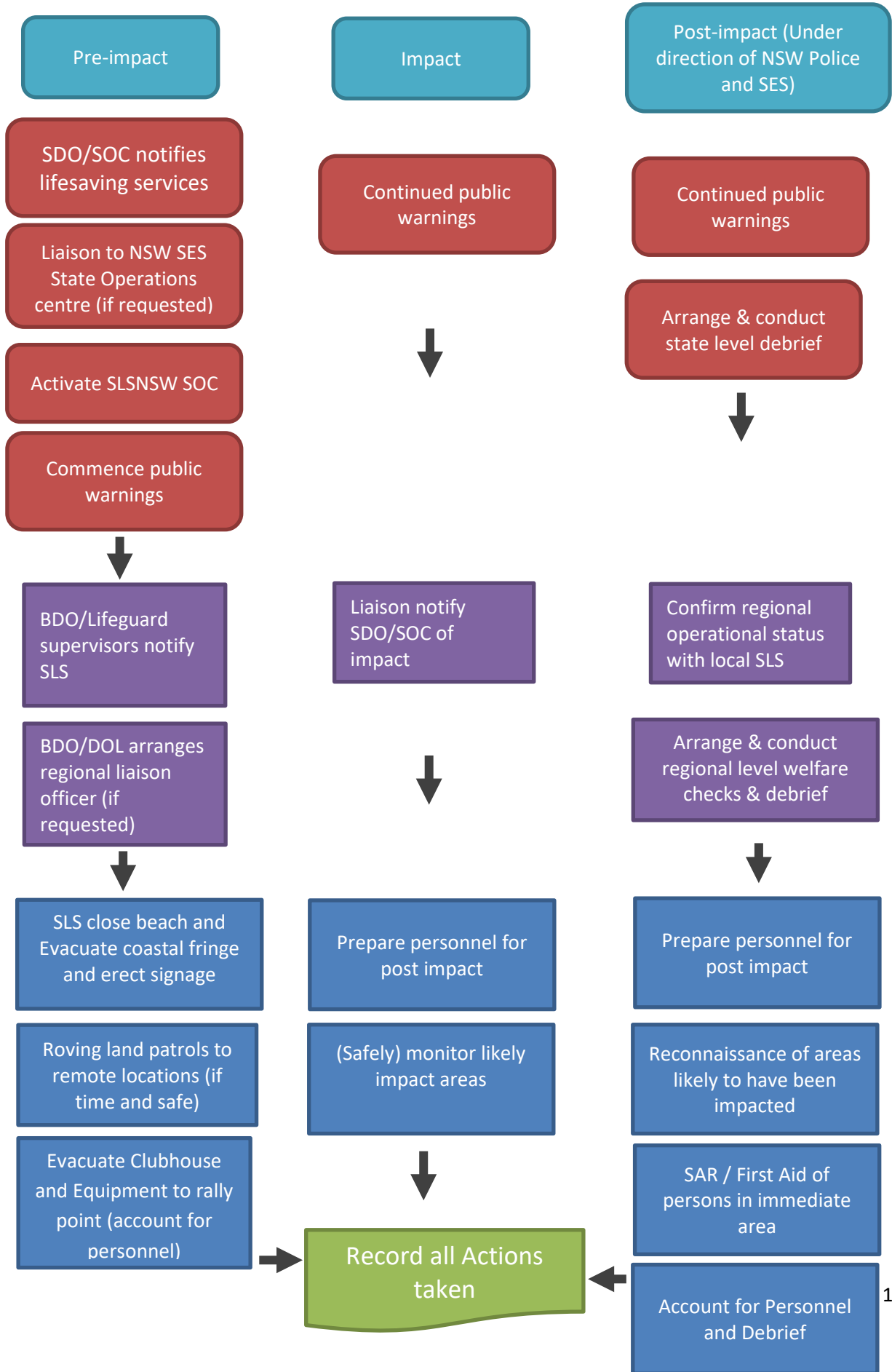
The Westpac Lifesaver Rescue Helicopter Services (Southern Region) are a vital tool in assisting the management of waterways and dissemination of information, and may be tasked by the NSW SES (via the SDO) to assist in the management of waterways, warning dissemination and evacuation of personnel (if required).

Tsunami Watch





Land & Marine Threat



Apart from the response functions, this plan remains active at all times to enable preparedness functions.

Response operations will commence:

- a. On receipt of a tsunami watch or warning from the JATWC indicating a potential threat to NSW; or
- b. On receipt of a Pacific Tsunami Bulletin that refers to Australia; via the BoM from the Pacific Tsunami Warning Centre; or
- c. After reports of a large earthquake on or near the NSW coast; or
- d. After the impact of a locally generated tsunami; or
- e. When unusual ocean behaviour indicative of an imminent tsunami is observed; or
- f. When any other evidence leads to the possibility that a tsunami may impact on the NSW coast.

If tsunami observed by patrols, act immediately to:

- Initiate the 'Evacuation Plan' list. If high ground is not available move as far inland as possible away from creeks, rivers and lakes.
- Notify SurfCom, who will notify the SLSNSW State Duty Officer.

PRE-IMPACT

WATCH AND WARNING DISSEMINATION

- a) The NSW SES (or NSW Police) will notify the SDO, via 13SURF, of tsunami watches and warnings following their issue by the BoM.
- b) The SDO (or delegate) will contact SurfCom and lifesaving services. The Emergency Services Officer of any Surf Life Saving events/carnivals/competitions will be informed.

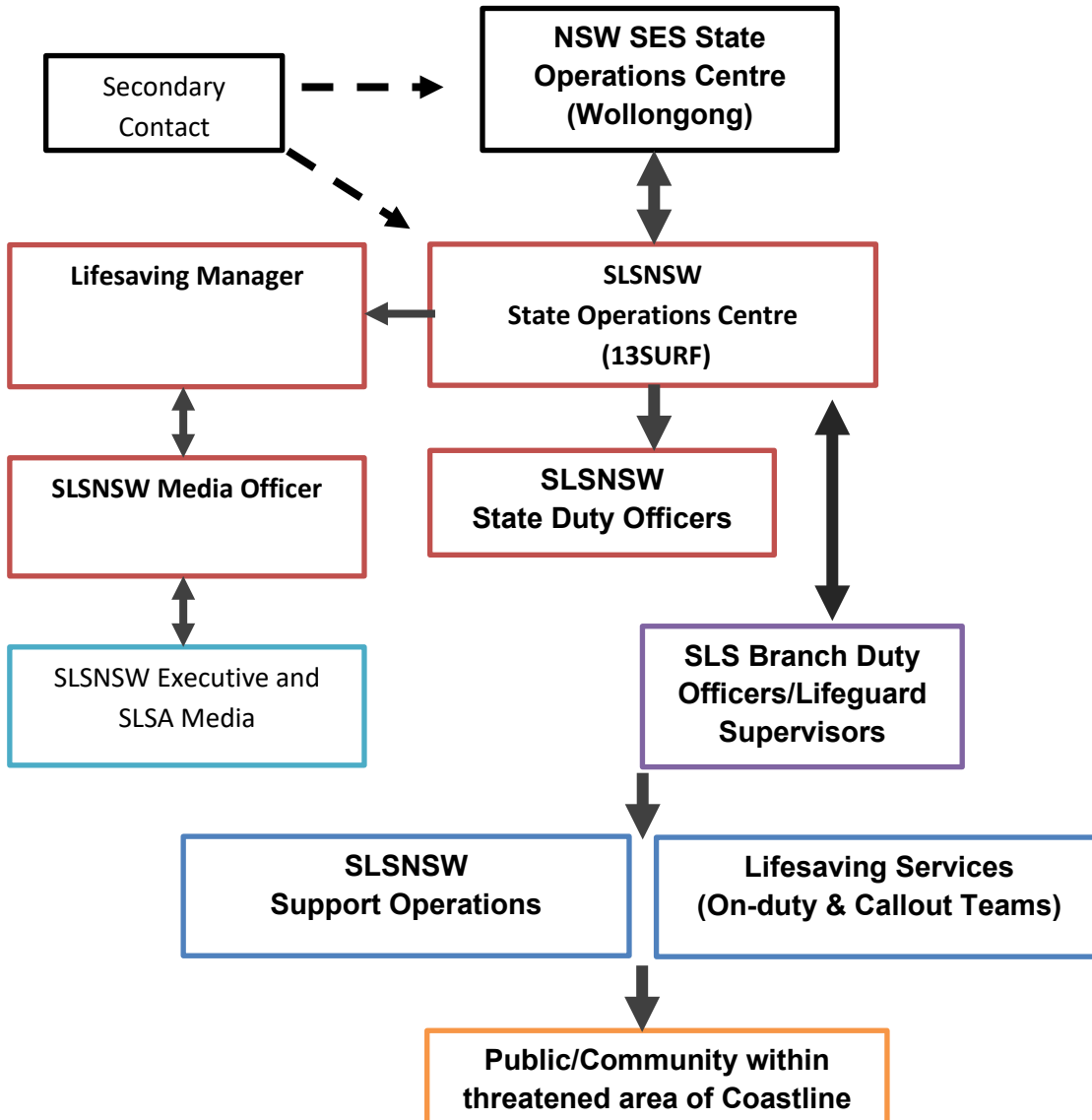
In the event of a non-forecast and/or locally generated event, the SDO shall be contacted immediately by the lifesaving service/SurfCom. The SDO will contact the NSW SES State Operations Centre immediately.

METHODS FOR WATCH AND WARNING DISSEMINATION

SLSNSW will assist the NSW SES to disseminate watch and warning information through the following:

- On-beach personnel ;
- Beach Emergency Evacuation Siren and Flags ;
- Mobile and fixed public address systems;
- Surf Life Saving Helicopter Rescue Services;
- Surf Life Saving Jet and Offshore Rescue Boats (during pre-impact stage only);
- Two-way radio;
- Beach Signage; and,
- Directing public to NSW SES website and social media

WATCH AND WARNING DISSEMINATION FLOW CHART



This chart also serves for the flow of information during the impact and post impact stages.

COMMUNICATION

The SDO is to maintain regular updates (at minimum) on an hourly basis to all communication stakeholders or as deemed necessary.

BDOs, SurfCom, Lifeguard Services should limit all but emergency communications to the SDO within this period.

BDOs should maintain contact with lifesaving services in their region and maintain their designated pre impact activities unless otherwise advised by the SDO. Branch Duty Officers will provide hourly SITREPS to the SOC including:

- Current position/Situation (including assets tasked);
- Welfare Issues;
- Actions underway; and,
- Further Action.

LIAISON

SLSNSW will provide liaison officers to NSW SES State, Regional or Local headquarters as requested.

EVACUATION

Evacuation and closure of beaches, estuaries and rock platforms within specified coastal waters areas will be required on receipt of a tsunami warning indicating a marine or major land inundation threat to the marine environment and immediate foreshore areas. SLS services may also be called on to assist with the evacuation of close by waterfront areas of harbours.

Evacuation priority (by area), will be given to the following:

1. Patrolled/flagged area;
2. Adjacent water areas ;
3. SLSC Clubhouse, lifesaving facilities and buildings;
4. Beach and car parks; and,
5. Adjacent camping grounds/houses.

SURF LIFE SAVING EVENTS/CARNIVALS/COMPETITIONS

- a) SLSNSW shall follow the instructions of the NSW SES and NSW Police, namely regarding emergency evacuations of marine, coastal and other at-risk areas in a tsunami or flood warning event.
- b) SLSNSW recognises the delegated authority provided to the SDO by the NSW SES under the NSW State Tsunami Plan to disseminate warning and evacuation instructions and advice/information on behalf of the NSW SES, to lifesaving services and any/all surf lifesaving carnivals/events.
- c) SLSNSW recognises that instructions provided by the SDO to a Surf Life Saving carnival/event Emergency Services Officer (or equivalent) on behalf of the NSW SES, may include the requirement to postpone or cancel surf lifesaving carnivals/events and/or evacuate the area, in which case 3.1 (a) shall apply.

All Surf Life Saving event/carnival risk management plans shall include this information within their respective emergency planning sections.

LOGISTICS

If lifesaving services are insufficient or likely to be exhausted, additional regional resources may be deployed through the SDO or SOC.

MEDIA

In the event of a tsunami a 'Joint Media Information Centre' (JMIC) will be established. All media (local, state and national) for a tsunami shall be coordinated to the JMIC. The SLSNSW Media liaison will nominate SLS representative/s to act as the 'Media Spokesperson' for the event (if required).

The SLSNSW Media liaison (or delegate) shall be located at the JMIC (if possible).

To reduce the likelihood of conflicting information being provided to lifesaving services and communities, warnings provided to media outlets or the public shall be coordinated by the SLSNSW Media liaison in conjunction with the NSW SES, SLSNSW State Duty Officer and the NSW SES Joint Media Information Centre.

Surf Life Saving patrols/clubs/branch offices and lifeguard services shall contact the SLSNSW Media liaison prior to assisting with any media.

IMPACT

SEARCH AND RESCUE AUTHORITY

Search and Rescue will be controlled and coordinated by the NSW Police Force.

The NSW Police Force will liaise with SLSNSW State Operations Centre, State Duty Officer and regional Lifesaving Services.

All search and rescue operations will be in accordance with the SLSNSW Standard Operating Procedures, under the guidance of the SLSNSW State Duty Officer and command of local lifesaving service incident commanders (Branch Duty Officers/Lifeguard Supervisors etc.).

END OF RESPONSE OPERATIONS / ALL CLEAR

Response operations will conclude once the 'All Clear' has been issued by the NSW SES. This will be in the form of a **Tsunami Warning Cancellation**.

The NSW SES will advise SLSNSW when an 'All Clear' is issued to:

- Confirm that the destructive impacts of a predicted tsunami will not occur.
- Following the impact of a destructive tsunami, when it is safe to return to coastal areas.

The SLSNSW State Duty Officer is to advise all responsible agencies and assets.

End of response may take two forms for Lifesaving Services:

Status	Objective & Action	Methodology
Tsunami Watch		
Lifesaving personnel and equipment at positioned	Objective: Personnel safety and positioned to provide assistance if requested by the NSW SES/NSW Police.	Maintain communication with Incident Commander /NSW Police via radios or mobile. Awaiting further instructions.
'All Clear' given	Objective: Return to club and return to normal operations.	Ensure ' All Clear ' is confirmed and factual, before returning to the coast.
Recovery	Objective: Account for all personnel and equipment + debrief.	As per post-incident SOP's LS 14.
or		
Marine/Land Inundation		
Impacts	Objective: Member safety and positioned to provide assistance if requested by the NSW SES/NSW Police.	Follow directions of Incident Commander / Police. Note: Tsunami can pose a threat for a long period of time (multiple waves etc.).
Post Impact	Objective: Provide search and rescue assistance to the NSW SES/NSW Police, while maximising personnel safety.	As per SOP's for search and rescue – maintain communications with command/control point & SurfCom. Objectives and roles clearly defined to members.
Recovery	Objective: Account for all personnel and equipment + debrief.	As per post-incident SOP's LS 14.

POST-IMPACT

Search and Rescue will continue Post – Impact with the tsunami warning cancellation.

DAMAGE CONTROL

In the immediate post-impact period there may be some scope for action to be taken to limit danger to the public and further damage to structures.

Damage control operations will be coordinated by the NSW SES through the SLSNSW State Duty Officer. This activity will only be undertaken when it does not conflict with rescue and recovery operations.

Part 5 - Recovery

Recovery efforts shall be in line with SLSNSW SOP LS14 and NSW State Recovery Plan 2014.

OPERATIONAL DEBRIEFS

All areas shall conduct debriefs as soon as possible after the end of response operations. There will be a number of debriefs that will occur. For Surf Life Saving these will be as follows:

- Lifesaving services internal Debrief;
- SLSNSW internal Debrief – State Operations Centre and DOLs (or delegate);
- State interagency debrief – SLSNSW Lifesaving Manager; and,
- Local interagency debrief – LEMC delegate / Incident Commander.

DEBRIEFS

- a. The SLSNSW State Duty Officer will co-ordinate a state wide internal debrief.
- b. The Branch Duty Officer will control the local region internal debrief.
- c. Lifesaving Services will refuel, replenish and undertake post operational checks.
- d. All Lifesaving Services will complete the necessary documentation.
- e. Lifesaving Services will participate in an external debrief as required locally and at a State level.

GLOSSARY	
ALL CLEAR	An advice that danger to life and property has passed.
COMBAT AGENCY	Means the agency identified in the State DisPlan as the agency primarily responsible for controlling the response to a particular emergency.
EVACUATION ORDER	Advice to the community authorised by the NSW SES when the intent of an Operations Controller is to instruct a community to immediately evacuate in response to an imminent threat.
EVACUATION WARNING	Advice to the community authorised by the NSW SES when the intent of an Operations Controller is to warn a community of the need to prepare for a possible evacuation.
INLAND WATERS	All riverine and estuary systems within NSW not included in State Waters (see State Waters).
LIFESAVING SERVICES	Refers to Council lifeguards, ALS and Volunteer Lifesavers.
LIAISON OFFICER	A person nominated or appointed by an agency or functional area, to represent that agency or functional area at a control centre, emergency operations centre or coordination centre. A liaison officer maintains communications with and conveys directions/requests to their agency or functional area, and provides advice on the status, capabilities, actions and requirements of their agency or functional area. A liaison officer must have the authority to commit the resources of their parent agency.
SUPPORTING PLAN	Prepared by an agency or functional area, which describes the support which is to be provided to the controlling or coordinating authority during emergency operations. It is an action plan which describes how the agency or functional area is to be coordinated in order to fulfil the roles and responsibilities allocated under this plan and the State DisPlan.
TSUNAMI	A series of travelling waves generated by the sudden displacement of the sea by submarine earthquakes, volcanic eruptions, landslides or asteroid impacts. The word 'tsunami' is Japanese for 'harbour wave'.
LOCAL TSUNAMI	A tsunami that is generated close to the areas it floods, for example the 1998 PNG tsunami. This type of tsunami may also be referred to as 'near-field' tsunami.

REGIONAL TSUNAMI	Tsunami generated within the South West Pacific Region.
DISTANT TSUNAMI	A tsunami generated from a distant source, generally outside the south-west pacific region. This type of tsunami may also be referred to as 'far field tsunami'.
TSUNAMI WARNING	A tsunami warning may be issued once there is high degree of confidence that a tsunami threat exists based upon detection that a tsunami has been generated; or if there is a potential threat (unconfirmed) to NSW within the next 90 minutes. This warning will outline the areas under threat using coastal waters forecast districts and the actions that should be taken by the community. Warnings are stratified to give some indication of tsunami magnitude. Tsunami warnings may be issued for the NSW mainland coast and/or Lord Howe Island. Tsunami Warnings are issued by the Bureau of Meteorology and are distributed to all media outlets and emergency management agencies.
MARINE ENVIRONMENT AND IMMEDIATE FORESHORE THREAT	The tsunami is expected to mainly affect the marine environment for specified coastal areas. Although major land inundation is not expected, there may be local amplification of the tsunami in some areas leading to land inundation in limited low-lying coastal areas. Significant sea level variations may continue for many hours and even days along the affected coastal areas. Strong rips and currents may result in extreme danger to people in the water. Potential for damage to marine facilities and craft in marinas and harbours. Potential for sea water intrusions to the top of the beach, minor overtopping of sea walls and even over very low lying foreshore areas –paths, roads, beachfront car parks etc.
MAJOR LAND INUNDATION THREAT	Major sea level variations along the affected coastal areas. Significant overtopping of foreshore dunes and sea walls, with areas of inundation beyond the immediate foreshore. Extreme danger extending beyond the water to low lying coastal areas. Probable extensive damage to ports, marina and small boats. Potential damage to buildings and infrastructure near the shore. Extremely dangerous affects in the water continuing for many hours and even days. Tsunami warnings can be cancelled if the situation is reassessed as having no threat, or at a point following an event at which the situation is assessed as posing no further threat
TSUNAMI WATCH	A tsunami watch is a notification of a possible tsunami threat after an undersea earthquake has been detected and analysed. When the threat is confirmed or the potential tsunami may impact on NSW in less than 90 minutes a tsunami warning will be issued. A tsunami watch will typically be issued less than 30 minutes after an earthquake. Three types of tsunami watches exist; all have the same technical meaning but differ in the areas they apply to: <ul style="list-style-type: none"> • National Tsunami Watch – issued in the context of Australian region • NSW Tsunami Watch – issued in the context of NSW only. Issued when there is a warning for some part of the Australian region. • Lord Howe Island Tsunami Watch - issued in the context of Lord Howe Island only. Issued when there is a warning for some part of the Australian region. Tsunami watches can be cancelled if the situation is reassessed as no threat. Tsunami Watches are issued by the Bureau of Meteorology and are distributed to all media outlets and emergency management agencies.
PERIOD	The length of time between two successive tsunami wave peaks or troughs. May vary due to complex interference of waves. Is usually measured in minutes.

WAVE HEIGHT	Height of a tsunami wave is most important at shore and refers to the depth of water under the wave crest.
INUNDATION	The maximum horizontal penetration of the tsunami from the shore line measured in tens of metres or kilometres.

Appendix 1 – Local Responsibilities:

Threat Level	Objective, Action	Actioned By
Tsunami Watch threat may exist		
PRE IMPACT	Lifesaving services advised.	SDO, BDO, LGS
	Lifesaving services prepare equipment and personnel for response operations.	PC,SLG
	Maintain communications with Branch Duty Officers and Lifeguard Supervisor.	PC,SLG
	Maintain vigilance.	ALL
Tsunami Warning Marine and Immediate Foreshore Threat		
PRE IMPACT	Close water/beach areas.	PC,SLG
	Issue evacuation instructions to beach and foreshore users (in-person, sirens, load-speakers, signage).	PC,SLG
	Erect warning signage at beach access ways.	BDO, LGS, PC, SLG
	Move lifesaving equipment from beach to secure area.	BDO, LGS
	Evacuate at-risk (low-lying) club houses/facilities.	PC,SLG
	Restrict access to water/beach area.	BDO, LGS, PC, SLG
	Roving beach patrols to adjacent unpatrolled locations (as able).	BDO, LGS
	Establish command post at safe area (SLSC/Tower etc.).	BDO, LGS
	Maintain communications with Branch Duty Officers and Lifeguard Supervisors, SurfCom.	PC, SLG
	Maintain Contact with Incident Commander.	BDO, LGS
	Evacuate any non-essential personnel (stand down from active duty).	PC, LGS
	Establish local liaison with NSW SES and NSW Police Force.	BDO, LGS
IMPACT	Assist NSW Police Force to restrict access to water/beach areas.	BDO, LGS, PC, SLG
	Continue Public warnings.	SDO
	Rescue persons – under direction of NSW Police Force & not risking safety of SLS personnel.	BDO, LGS, PC, SLG
POST IMPACT	Roving beach patrols to adjacent unpatrolled locations (as able).	BDO, LGS, PC, SLG
	Undertake activities in support of NSW SES and NSW Police Force via the State Duty Officer.	ALL
	Debrief and welfare checks at club, regional and state level.	SDO, BDO

Appendix 1 – Local Responsibilities:

Threat Level	Objective, Action	Actioned By
Tsunami Warning Land Inundation Threat		
PRE IMPACT	Close water/beach areas.	PC, SLG
	Issue evacuation instructions to beach and surrounds –coastal fringe (in-person, sirens, load-speakers, signage).	
	Erect warning signage at beach access ways.	
	Evacuate clubhouse/lifesaving facilities.	
	Roving patrols to adjacent unpatrolled locations (as able).	BDO, LGS
	Establish a command post at pre-determined rally-point / safe area (high-ground).	BDO, LGS
	Transport key lifesaving equipment to command post / rally-point.	PC, SL
	Evacuate any non-essential personnel (stand down from active duty).	PC, LGS
	Maintain communications with Branch Duty Officers and Lifeguard Supervisors, SurfCom.	PC, SLG
	Maintain Contact with Incident Commander.	BDO, LGS
	Establish local liaison with NSW SES and NSW Police Force at rally point.	BDO, LGS
	IMPACT	Prepare personnel for post impact.
POST IMPACT	Monitor likely impact areas.	BDO, LGS, PC, SLG
	Administer First aid.	BDO, LGS, PC, SLG
	Continue public warnings.	SDO
	Maintain communications with Branch Duty Officers and Lifeguard Supervisors.	PC, SLG
	Reconnaissance of areas likely to have been impacted.	BDO, LGS, PC, SLG
	SAR of persons in distress.	BDO, LGS, PC, SLG
	Undertake activities in support of NSW SES and NSW Police Force via the State Duty Officer.	ALL
	Debrief and welfare checks at club, regional and state level.	SDO, BDO
Note: Extent of warning actions shall be determined by available time		

Appendix 2 - General Public Safety Advice:

A TSUNAMI IS NOT A SINGLE WAVE, BUT A SERIES OF WAVES THAT MAY CONTINUE FOR HOURS/DAYS
DO NOT GO TO THE COAST TO WATCH THE TSUNAMI

Tsunami Watch

Identify the nearest high ground and safest routes to it.

Heed natural warnings - earthquakes, rumbling or sudden changes in the behaviour of coastal seas can all be signs of an approaching tsunami.

Monitor local radio and television closely. Pay special attention when the [Standard Emergency Warning Signal \(SEWS\)](#) is aired.

If you cannot get to higher ground move inland and shelter in the upper floor of the closest sturdy building and stay there until advised that it is safe to return to lower floors. Homes and small buildings are not designed to withstand tsunami forces.

Marine and Immediate Foreshore Threats

Get out of the water and move away from the immediate water's edge of harbours, coastal estuaries, rock platforms, and beaches.

Boats in harbours, estuaries and in shallow coastal water should return to shore. Secure your boat and move away from the waterfront.

Check that your neighbours have received this advice.

Keep listening to your local radio station for updates and advice.

A Tsunami Warning Cancellation will be issued when the tsunami threat has passed.

Land Inundation Threat

Go to higher ground, at least ten metres above sea level, or if possible move at least one kilometre away from all beaches and the water's edge of harbours and coastal estuaries.

Take only essential items that you can carry including important papers, family photographs and medical needs.

Consider walking to safety if possible to avoid traffic jams.

Get out of the water and move away from the immediate water's edge of harbours, coastal estuaries, rock platforms and beaches.

If you cannot leave the area take shelter in the upper storey of a sturdy brick or concrete multi-storey building.

Boats in harbours, estuaries and in shallow coastal water should return to shore. Secure your boat and move away from the waterfront.

Vessels already at sea should stay offshore in deep water until further advised.

Do not go to the coast to watch the tsunami.

Check that your neighbours have received this advice.

Keep listening to your local radio station for updates and advice.

A Tsunami Warning Cancellation will be issued when the tsunami threat has passed.

After the tsunami:

Do not return to the threat area until the all clear has been given by the emergency services. Check with authorities if it is all clear before returning to the treat area

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