

SafeWaters

A NSW GOVERNMENT WATER SAFETY INITIATIVE

# NSW minimum dataset for water rescues

July 2003

Prepared by

NSW Water Safety  
Taskforce

## **NSW minimum dataset for water rescues**

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#### **Background**

The Minister for Sport and Recreation established the NSW Water Safety Taskforce in 2000 in recognition of the importance of water safety and the need for a coordinated approach to water safety in NSW. This Taskforce has developed the NSW Water Safety Framework 2001-2003 to provide strategic advice to the government on water safety related matters.

Three key priority areas have been identified in the Framework – Education, Standards, and Evidence – accompanied by seven objectives and 19 strategic directions. One of the key objectives of the Evidence area is to have access to comprehensive data on drownings, near drownings and water-related injuries through the development and implementation of improved data collection methods.

The agencies represented on the sub committee responsible for Evidence (Research and data collection sub committee) recognise the importance of having consistent data collection and coding mechanisms for the reporting of water safety statistics. As a result, the agencies agreed to develop a minimum dataset for the collection of information regarding water safety in NSW.

#### **Drowning Deaths**

The Commonwealth Department of Health and Ageing funded the Monash University National Centre for Coronial Information (MUNCCI) to conduct a feasibility study of including a drowning module in the National Coronial Information System (NCIS). The study found that it would be feasible to use the NCIS as a vehicle for collecting additional data on drownings and other water-related fatalities.

MUNCCI has recommended:

- (a) the use of the minimum dataset for death investigation by police;
- (b) adding the extra data items regarding water safety to the NCIS; and
- (c) the development of specific NCIS data dictionary definitions and coding instructions for water-related death variables.

The development of the data dictionary and coding instructions for water-related deaths is still to be developed. As the data dictionary and water safety variables would be collected Australia-wide, it is proposed that the NSW Water Safety Taskforce does not establish its own definitions for water-related deaths, but uses the definitions that will be developed nationally by MUNCCI.

Currently, in NSW the Royal Life Saving Society obtains details from coronial records to describe the number, rate, location, and activity being performed by a person who has drowned.

#### **Near drowning**

NSW Health inpatient statistics and emergency department presentations are able to be accessed to determine the number of near drowning episodes that occur in NSW that require treatment at a hospital.

## **Boating Incidents**

There is a National Marine Safety Data Collection to which each State and Territory in Australia is asked to provide information. Data standards and definitions for these marine incidents have already been developed and are used to assist in the formulation, monitoring and measurement of uniform marine safety policy and legislation.

The National Marine Safety Minimum Data Set applies exclusively to incidents involving recreational and small commercial vessels (ie. vessels licensed or surveyed under jurisdictional legislation). Incidents that involve trading vessels which require investigation are reported to the Australian Maritime Safety Authority (AMSA).

## **Rescues, Preventive Actions and Beach Usage**

Surf Life Saving NSW and the Australian Professional Ocean Lifeguard Association (APOLA) both collect information regarding rescues, preventive actions, and general beach usage statistics. It has been proposed that the collection of information regarding the person being rescued might be possible for certain types of events described below:

- (a) **Rescue - major** – any rescue where the rescue of a person involved more than one lifeguard/lifesaver or a member of the public to render assistance OR where the rescued persons had to be resuscitated OR where an other agency had to render assistance (eg. ambulance, rescue helicopter).
- (b) **Rescue** – any rescue where a person was physically assisted or supported to return to shore or other place of safety (eg. retrieving a person in difficulty).
- (c) **Preventive action** – any water safety advice provided to the public (eg. asking people to swim between the flags; use of PA and/or whistle).

All rescues and preventive actions undertaken by lifeguards and lifesavers are considered to be important. It would be relatively easy for a minor incident to turn into a major rescue event without the rapid response that is provided by lifeguards and lifesavers in NSW.

## **Public Swimming Pools**

The Royal Life Saving Society in NSW is in a position to be able to coordinate the collection of rescue information from some public pools in NSW. It has been proposed that the collection of detailed information regarding the person being rescued might be possible for certain types of events (as describe above).

## **Minimum Dataset for Water Rescues**

In order to develop a more consistent collection of data between the agencies who collect information on water safety rescue activities, members of the NSW Water Safety Taskforce have indicated that it would be beneficial to develop common data items and definitions. Types of information that have been recommended as being beneficial to be collected have been listed overleaf.

## **Acknowledgements**

The Data Collection and Research Sub-committee of the NSW Water Safety Taskforce developed this minimum dataset. This Sub-committee consist of representatives of: the Injury Prevention and Policy Branch of NSW Health; the Department of Sport and Recreation; Australian Professional Ocean Lifeguards Association; Farmsafe NSW; Surf Life Saving, NSW; Royal Life Saving Society, NSW; Waterways Authority; and with feasibility testing conducted by the NSW Injury Risk Management Research Centre.

## Variable Summary

<b>Variable</b>	<b>Variable Definition</b>	<b>Page</b>
Unique identifier	A consecutive number allocated to each person who was rescued.	6
Location	Where did the rescue incident occur?	7
Date	What was the date when the person was rescued?	8
Time	What was the time when the person was rescued?	9
Day of the week	What was the day of the week when the person was rescued?	10
Location – beach	At what beach did the rescue occur?	11
Age - exact	What was the exact age of the person who was rescued?	12
Age - estimate	What was the estimated age of the person who was rescued?	13
Sex	What was the sex of the person who was rescued?	14
Main language	What was the main language spoken at home of the person who was rescued?	15
Suburb	What was the suburb of the usual residence of the person who was rescued?	16
Postcode	What was the postcode of the suburb of the usual residence of the person who was rescued?	17
Indigenous status	Was the rescued person of Aboriginal or Torres Strait Islander origin?	18
Swimming ability1	What was the swimming ability of the person who was rescued (rescued person's estimate)?	19
Swimming ability2	What was the swimming ability of the person who was rescued (rescuer's estimate)?	20
Swimming strength1	What was the strength of the swimming ability of the person who was rescued (rescued person's estimate)?	21
Swimming strength2	What was the strength of the swimming ability of the person who was rescued (rescuer's estimate)?	22
Activity	What activity was the rescued person performing just prior to the rescue?	23
Activity – text	What activity was the rescued person performing just prior to the rescue?	24
Performed rescue	Who performed the rescue?	25
Performed rescue - text	Who performed the rescue (text)?	26
Identification of rescue	How was the person to be rescued identified?	27
Identification of rescue - text	How was the person to be rescued identified (text)?	28
Estimated depth of water	What was the estimated depth of the water where the person was rescued?	29
Swimming flags	Was the rescued person located between the flags at the time of the incident?	30
Swimming flags - distance	How far from the rescued person from the flagged area?	31
Rescue equipment	What was the type of rescue equipment that was used?	32
Rescue equipment – text	What was the type of rescue equipment that was used?	33
First aid	What type of first aid was required by the rescued person?	34
First aid - text	What type of first aid was required by the rescued person?	35
Ambulance assistance	Was an ambulance required to assist/transport the rescued person?	36
Alcohol or other drugs	Was the rescued person perceived to be under the influence of alcohol or other drugs?	37
Rescue – text	Describe brief details of the rescue incident	38
Time period	The time period in which the hourly observations occurred	39
Lifeguards/lifesavers	The number of lifeguards/lifesavers currently on patrol at the beach	40
High tide	What time was high tide on the day of the rescue?	41
Low tide	What time was low tide on the day of the rescue?	42
Swimming flags area	The location of the swimming flags area on the beach for the last hour	43
Major rescues – exact in flagged area	Exact count of the number of major rescues that took place within the flagged area in the last hour	44
Major rescues – exact outside flagged area	Exact count of the number of major rescues that took place outside the flagged area in the last hour	45

<b>Variable</b>	<b>Variable Definition</b>	<b>Page</b>
Major rescues – exact total	Exact count of the number of major rescues that took place in the last hour (both within and outside the flagged area)	46
Major rescues – estimate in flagged area	Estimate of the number of major rescues that took place within the flagged area in the last hour	47
Major rescues – estimate outside flagged area	Estimate of the number of major rescues that took place outside the flagged area in the last hour	48
Major rescues – estimate total	Estimate of the number of major rescues that took place in the last hour (both within and outside the flagged area)	49
Rescues – exact in flagged area	Exact count of the number of rescues that took place within the flagged area in the last hour	50
Rescues – exact outside flagged area	Exact count of the number of rescues that took place outside the flagged area in the last hour	51
Rescues – exact total	Exact count of the number of rescues that took place in the last hour (both within and outside the flagged area)	52
Rescues – estimate in flagged area	Estimate of the number of rescues that took place within the flagged area in the last hour	53
Rescues – estimate outside flagged area	Estimate of the number of rescues that took place outside the flagged area in the last hour	54
Rescues – estimate total	Estimate of the number of rescues that took place in the last hour (both within and outside the flagged area)	55
Preventive actions – exact in flagged area	Exact count of the number of preventive actions that took place within the flagged area in the last hour	56
Preventive actions – exact outside flagged area	Exact count of the number of preventive actions that took place outside the flagged area in the last hour	57
Preventive actions – exact total	Exact count of the number of preventive actions that took place in the last hour (both within and outside the flagged area)	58
Preventive actions – estimate in flagged area	Estimate of the number of preventive actions that took place within the flagged area in the last hour	59
Preventive actions – estimate outside flagged area	Estimate of the number of preventive actions that took place outside the flagged area in the last hour	60
Preventive actions – estimate total	Estimate of the number of preventive actions that took place in the last hour (both within and outside the flagged area)	61
Weather	What were the weather conditions at the time of the rescue?	62
Air temperature	What was the estimated air temperature at the time of the rescue?	63
Water temperature	What was the water temperature at the time of the rescue?	64
Sea conditions	What were the sea surface conditions at the time of the rescue?	65
Wind conditions	What were the wind conditions at the time of the rescue?	66
Wind direction1	What was the wind direction at the time of the rescue?	67
Wind direction2	What was the wind direction at the time of the rescue?	68
Wave type	What was the wave type at the time of the rescue?	69
Wave height	What was the wave height at the time of the rescue?	70
Rip	Was there a rip present at the rescue site?	71
Beach attendance1 - exact	Exact count of the number of people present on the sand	72
Beach attendance1 - estimate	Estimate of the number of people present on the sand	73
Beach attendance2 - exact	Exact count of the number of people present in the water between the flags (including the waters edge)	74
Beach attendance2 - estimate	Estimate of the number of people present in the water between the flags (including the waters edge)	75
Beach attendance3 - exact	Exact count of the number of people present in the water outside the flags (including the waters edge)	76
Beach attendance3 - estimate	Estimate of the number of people present in the water outside the flags (including the waters edge)	77

<b>Variable</b>	Unique identifier
<b>Definition</b>	A consecutive number allocated to each person who was rescued.
<b>Justification</b>	To allow for the identification of records.
<b>Format</b>	12 characters Text and numeric
<b>Coding source</b>	A      Australian Professional Ocean Lifeguard Association S      Surf Life Saving R      Royal Life Saving Society VM     Volunteer Marine Rescue P      Police O      Other source
<b>Coding frame</b>	Letter/Beach number or location number/rescue number Eg A/45/10
<b>Comments</b>	Professor Andrew Short's Australian Beach Safety and Management Program has developed a numbering system for beaches in NSW.

<b>Variable</b>	Location																								
<b>Definition</b>	Where did the rescue incident occur?																								
<b>Justification</b>	To allow for the identification of the location of the rescue.																								
<b>Format</b>	2 digit Numeric																								
<b>Coding source</b>	Based on Royal Life Saving Society location definitions.																								
<b>Coding frame</b>	<table> <tr><td>1</td><td>Beach (specify name)</td></tr> <tr><td>2</td><td>Harbour</td></tr> <tr><td>3</td><td>Lake</td></tr> <tr><td>4</td><td>Ocean</td></tr> <tr><td>5</td><td>Private swimming pool</td></tr> <tr><td>6</td><td>Public swimming pool</td></tr> <tr><td>7</td><td>River</td></tr> <tr><td>8</td><td>Dam</td></tr> <tr><td>9</td><td>Irrigation channel</td></tr> <tr><td>10</td><td>Tank</td></tr> <tr><td>11</td><td>Other</td></tr> <tr><td>99</td><td>Not known</td></tr> </table>	1	Beach (specify name)	2	Harbour	3	Lake	4	Ocean	5	Private swimming pool	6	Public swimming pool	7	River	8	Dam	9	Irrigation channel	10	Tank	11	Other	99	Not known
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11	Other																								
99	Not known																								

## Comments

Location	Definition
<b>Beach</b>	Shore washed by waves, tide normally used for swimming – includes rocks adjacent to beach area.
<b>Harbour</b>	Enclosed river mouth areas – more protected than ocean – included bays.
<b>Lake</b>	Body of water usually surrounded by land – includes ponds, lagoons.
<b>Ocean</b>	Vast body of open water – may be unprotected – includes seas.
<b>Private Pool</b>	Pool known to be closed to public at time of drowning (e.g. private home, home unit, town house including outdoor spas).
<b>Public Pool</b>	Pool known to be open to public (e.g. municipal baths, rock pools, pools at accommodation venues, school pools).
<b>River</b>	Natural stream of flowing water – including spa baths or showers.
<b>Dam</b>	Barrier constructed to hold back water.
<b>Other</b>	Anything not already covered (e.g. buckets, canals, channels, drains etc) or not specified or insufficient information to classify.

<b>Variable</b>	Date
<b>Definition</b>	What was the date when the person was rescued?
<b>Justification</b>	To determine patterns of rescues.
<b>Format</b>	8 digit Date format
<b>Coding source</b>	
<b>Coding frame</b>	dd/mm/yyyy  Eg 24/09/2001
<b>Comments</b>	

<b>Variable</b>	Time
<b>Definition</b>	What was the time when the person was rescued?
<b>Justification</b>	To determine patterns of rescues.
<b>Format</b>	4 digit Numeric
<b>Coding source</b>	24 hour clock
<b>Coding frame</b>	hhmm  Eg 2.00pm would be 1400  9999      not known
<b>Comments</b>	

<b>Variable</b>	Day of the week	
<b>Definition</b>	What was the day of the week when the person was rescued?	
<b>Justification</b>	To determine patterns of rescues for weekdays versus weekends.	
<b>Format</b>	1 digit Numeric	
<b>Coding source</b>		
<b>Coding frame</b>	1	Monday
	2	Tuesday
	3	Wednesday
	4	Thursday
	5	Friday
	6	Saturday
	7	Sunday
	9	Not recorded
<b>Comments</b>		

<b>Variable</b>	Location - beach
<b>Definition</b>	At what beach did the rescue occur?
<b>Justification</b>	To allow for the identification of the location of the rescue.
<b>Format</b>	free text
<b>Coding source</b>	
<b>Coding frame</b>	Text Not known
<b>Comments</b>	

<b>Variable</b>	Age - exact
<b>Definition</b>	What was the exact age of the person who was rescued?
<b>Justification</b>	Basic demographic details to determine if some age groups may be involved in a greater number of rescues than others.
<b>Format</b>	2 digit Numeric
<b>Coding source</b>	Age will be converted into age groupings for data analysis.
<b>Coding frame</b>	1 onwards
<b>Comments</b>	If unable to obtain the exact age of the person who was rescued an estimate of the age group of the rescued person will be used.

<b>Variable</b>	Age - estimate																
<b>Definition</b>	What was the estimated age of the person who was rescued?																
<b>Justification</b>	Basic demographic details to determine if some age groups may be involved in a greater number of rescues than others.																
<b>Format</b>	2 digit Numeric																
<b>Coding source</b>	Age will be converted into age groupings for data analysis.																
<b>Coding frame</b>	<table> <tr> <td>1</td> <td>0-5 years</td> </tr> <tr> <td>2</td> <td>6-14 years</td> </tr> <tr> <td>3</td> <td>15-24 years</td> </tr> <tr> <td>4</td> <td>25-34 years</td> </tr> <tr> <td>5</td> <td>35-64 years</td> </tr> <tr> <td>6</td> <td>65+ years</td> </tr> <tr> <td>8</td> <td>Not relevant (ie exact age known)</td> </tr> <tr> <td>9</td> <td>Not known</td> </tr> </table>	1	0-5 years	2	6-14 years	3	15-24 years	4	25-34 years	5	35-64 years	6	65+ years	8	Not relevant (ie exact age known)	9	Not known
1	0-5 years																
2	6-14 years																
3	15-24 years																
4	25-34 years																
5	35-64 years																
6	65+ years																
8	Not relevant (ie exact age known)																
9	Not known																
<b>Comments</b>	If unable to obtain the exact age of the person who was rescued an estimate of the age group of the rescued person will be used.																

<b>Variable</b>	Sex
<b>Definition</b>	What was the sex of the person who was rescued?
<b>Justification</b>	Basic demographic details to determine if some sexes may be involved in a greater number of rescues.
<b>Format</b>	1 digit Numeric
<b>Coding source</b>	National Health Data Dictionary, Version 10.
<b>Coding frame</b>	1        Male 2        Female  9        Not recorded
<b>Comments</b>	

<b>Variable</b>	Main language	
<b>Definition</b>	What was the main language spoken at home of the person who was rescued?	
<b>Justification</b>	Basic demographic details to determine if people from a non-English speaking background are be involved in a greater number of rescues.	
<b>Format</b>	2 digit Numeric	
<b>Coding source</b>		
<b>Coding frame</b>	1	English
	2	Non-English speaking
	9	Not known
<b>Comments</b>		

<b>Variable</b>	Suburb
<b>Definition</b>	What was the suburb of the usual residence of the person who was rescued?
<b>Justification</b>	Basic demographic details to determine if people from remote or close to the beach suburbs are be involved in a greater number of rescues.
<b>Format</b>	Text field
<b>Coding source</b>	
<b>Coding frame</b>	Free text
<b>Comments</b>	

<b>Variable</b>	Postcode
<b>Definition</b>	What was the postcode of the suburb of the usual residence of the person who was rescued?
<b>Justification</b>	Basic demographic details to determine if people from remote or close to the beach suburbs are be involved in a greater number of rescues.
<b>Format</b>	4 digit Numeric
<b>Coding source</b>	Australia Post website <a href="http://www.auspost.com.au">www.auspost.com.au</a> provides up-to-date postcodes and localities.
<b>Coding frame</b>	1000      No fixed abode 9998      Overseas 9999      Postcode not known
<b>Comments</b>	Using the suburb of the usual residence variable the postcode of usual residence could be determined.

<b>Variable</b>	Indigenous status
<b>Definition</b>	Was the rescued person of Aboriginal or Torres Strait Islander origin?
<b>Justification</b>	Basic demographic details.
<b>Format</b>	1 digit Numeric
<b>Coding source</b>	National Health Data Dictionary, Version 10.
<b>Coding frame</b>	1            Aboriginal and Torres Strait Islander origin 2            Neither Aboriginal nor Torres Strait Islander origin  9            Not known
<b>Comments</b>	An Aboriginal or Torres Strait Islander is a person of Aboriginal or Torres Strait Islander descent who identifies as an Aboriginal or Torres Strait Islander and is accepted as such by the community in which he or she lives.

<b>Variable</b>	Swimming ability1	
<b>Definition</b>	What was the swimming ability of the person who was rescued (rescued person's estimate)?	
<b>Justification</b>	To determine from the rescued person's perspective if they thought themselves a swimmer or non-swimmer.	
<b>Format</b>	1 digit Numeric	
<b>Coding source</b>		
<b>Coding frame</b>	1	Swimmer
	2	Non-swimmer
	9	Not known
<b>Comments</b>		

<b>Variable</b>	Swimming ability2	
<b>Definition</b>	What was the swimming ability of the person who was rescued (rescuer's estimate)?	
<b>Justification</b>	To determine from the rescuer's perspective if they thought the rescued person was a swimmer or non-swimmer.	
<b>Format</b>	1 digit Numeric	
<b>Coding source</b>		
<b>Coding frame</b>	1	Swimmer
	2	Non-swimmer
	9	Not known
<b>Comments</b>		

<b>Variable</b>	Swimmer's strength1	
<b>Definition</b>	What was the strength of the swimming ability of the person who was rescued (rescued person's estimate)?	
<b>Justification</b>	To determine from the rescued person's perspective what they thought of their swimming strength.	
<b>Format</b>	1 digit Numeric	
<b>Coding source</b>		
<b>Coding frame</b>	1	Weak
	2	Ordinary
	3	Strong
	9	Not known
<b>Comments</b>	Strength of swimming ability of the rescued person was self estimated by the rescued person.	

<b>Variable</b>	Swimmer's strength2	
<b>Definition</b>	What was the strength of the swimming ability of the person who was rescued (rescuer's estimate)?	
<b>Justification</b>	To determine from the rescuer's perspective what they thought of the rescued person's swimming strength.	
<b>Format</b>	1 digit Numeric	
<b>Coding source</b>		
<b>Coding frame</b>	1	Weak
	2	Ordinary
	3	Strong
	9	Not known
<b>Comments</b>	Strength of swimming ability of the rescued person was estimated by the rescuer.	

<b>Variable</b>	Activity
<b>Definition</b>	What was the rescued person doing just before the rescue?
<b>Justification</b>	To identify water user groups that may need to be targeted for risk awareness strategies.
<b>Format</b>	2 digit Numeric
<b>Coding source</b>	Proposed minimum data set for police notification of death (Sept 2000) and SLS Coastal Incident Database.
<b>Coding frame</b>	<ul style="list-style-type: none"> <li>1 Rock fishing</li> <li>2 Other types of fishing (excluding spear fishing)</li> <li>3 Attempting a rescue</li> <li>4 Swimming, paddling or wading</li> <li>5 Incident involving a motorised water craft (excluding PWCs eg jet ski)</li> <li>6 Personal Water Craft (PWC) eg jet ski</li> <li>7 Water skiing</li> <li>8 Skin diving/ snorkeling (including spear fishing)</li> <li>9 Diving (Scuba/ SSBA/ Platform)</li> <li>10 Walking/ Playing near water</li> <li>11 Body board</li> <li>12 Craft riding (Surf board, wave/surf ski, knee board)</li> <li>13 Wind surfing/ kite surfing</li> <li>14 Rock walking</li> <li>15 Sailing</li> <li>16 Suspected suicide</li>   <li>97 Other (specify in text)</li> <li>99 Not known</li> </ul>
<b>Comments</b>	It is a statutory requirement that incidents involving motorised watercraft, including PWC's, be reported to the NSW Waterways Authority by the owner of the watercraft.

<b>Variable</b>	Activity (text)
<b>Definition</b>	What activity was the rescued person performing just prior to the rescue?
<b>Justification</b>	If 'other' is selected in the Activity variable, then the activity the person was performing just prior to their rescue is recorded.
<b>Format</b>	text field
<b>Coding source</b>	
<b>Coding frame</b>	free text
<b>Comments</b>	

<b>Variable</b>	Performed rescue	
<b>Definition</b>	Who performed the rescue?	
<b>Justification</b>	To determine who performed the rescue.	
<b>Format</b>	1 digit Numeric	
<b>Coding source</b>		
<b>Coding frame</b>	1	<b>lifesaver</b>
	2	<b>lifeguard</b>
	3	member of the public
	4	other (specify in text)
	8	not relevant
	9	not known
<b>Comments</b>	<p>A <b>lifeguard</b> refers to an individual who is in paid employment as a professional lifeguard at the beach in which the rescue occurred.</p> <p>A <b>lifesaver</b> refers to a trained individual who works in a volunteer capacity as a lifesaver at the beach in which the rescue occurred.</p>	

<b>Variable</b>	Performed rescue (text)
<b>Definition</b>	Who performed the rescue?
<b>Justification</b>	If 'other' is selected in the who performed the rescue variable, then the person who performed the rescue is recorded.
<b>Format</b>	text field
<b>Coding source</b>	
<b>Coding frame</b>	free text
<b>Comments</b>	

<b>Variable</b>	Identification of rescue																				
<b>Definition</b>	How did the rescuer know that the person was in difficulties?																				
<b>Justification</b>	To determine how the person to be rescued was identified.																				
<b>Format</b>	1 digit Numeric																				
<b>Coding source</b>																					
<b>Coding frame</b>	<table border="0"> <tr><td>1</td><td>seen by lifeguard from land</td></tr> <tr><td>2</td><td>seen by lifeguard from water</td></tr> <tr><td>3</td><td>seen by lifesaver from land</td></tr> <tr><td>4</td><td>seen by lifesaver from water</td></tr> <tr><td>5</td><td>seen by member of the public from land</td></tr> <tr><td>6</td><td>seen by member of the public from water</td></tr> <tr><td>7</td><td>identified by electronic means (eg outpost alarm, GPS)</td></tr> <tr><td>8</td><td>other (specify in text)</td></tr> <tr><td>98</td><td>not relevant</td></tr> <tr><td>99</td><td>not known</td></tr> </table>	1	seen by lifeguard from land	2	seen by lifeguard from water	3	seen by lifesaver from land	4	seen by lifesaver from water	5	seen by member of the public from land	6	seen by member of the public from water	7	identified by electronic means (eg outpost alarm, GPS)	8	other (specify in text)	98	not relevant	99	not known
1	seen by lifeguard from land																				
2	seen by lifeguard from water																				
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98	not relevant																				
99	not known																				
<b>Comments</b>	<p>A <b>lifeguard</b> refers to a trained individual who is in paid employment as a professional lifeguard at the beach or pool in which the rescue occurred.</p> <p>A <b>lifesaver</b> refers to a trained individual who works in a volunteer capacity as a lifesaver at the beach in which the rescue occurred.</p> <p>‘from land’ refers to being sighted by an individual who was situated on land (eg on the beach) when the person to be rescued was identified.</p> <p>‘from water’ refers to being sighted by an individual who was in the water (eg a board rider) when the person to be rescued was identified.</p>																				

<b>Variable</b>	Identification of rescue (text)
<b>Definition</b>	How was the person to be rescued identified?
<b>Justification</b>	If 'other' is selected in the identification of rescue variable, then the way in which the person to be rescued was identified is recorded.
<b>Format</b>	text field
<b>Coding source</b>	
<b>Coding frame</b>	free text
<b>Comments</b>	

<b>Variable</b>	Estimated depth of water – pools/ rock pools	
<b>Definition</b>	What was the estimated depth of the water in the pool/rock pool where the person was rescued?	
<b>Justification</b>	To assess possible associated factors that contribute to incidents of spinal injury.	
<b>Format</b>	4 digit Numeric	
<b>Coding source</b>	metres	
<b>Coding frame</b>	9998	Not relevant
	9999	Not known
<b>Comments</b>		

<b>Variable</b>	Swimming flags	
<b>Definition</b>	Was the rescued person located between the flags at the time of the incident?	
<b>Justification</b>	To identify water user groups that may need to be targeted for risk awareness strategies.	
<b>Format</b>	1 digit Numeric	
<b>Coding source</b>		
<b>Coding frame</b>	1	No, outside the swimming flags
	2	Yes, between the swimming flags
	8	Not relevant
	9	Not known
<b>Comments</b>	‘Swimming flags’ refer to the red and yellow flags present to indicate an area for safe swimming at a beach.	

<b>Variable</b>	Swimming flags - distance
<b>Definition</b>	How far was the rescued person from the flagged area?
<b>Justification</b>	To identify how far the rescued person was from the flagged area at the time of the rescue.
<b>Format</b>	4 digit Numeric
<b>Coding source</b>	metres
<b>Coding frame</b>	9998      Not relevant 9999      Not known
<b>Comments</b>	‘Swimming flags’ refer to the red and yellow flags present to indicate an area for safe swimming at a beach.

<b>Variable</b>	Rescue equipment
<b>Definition</b>	What was the type of rescue equipment that was used?
<b>Justification</b>	To determine patterns of equipment use.
<b>Format</b>	2 digit Numeric
<b>Coding source</b>	SLS Coastal incident database
<b>Coding frame</b>	1        no equipment used 2        rescue board 3        spinal board 4        Inflatable rescue boat (IRB) 5        Rescue tube or personal floatation device (PFD) 6        Jet Rescue Boat (JRB)/ Offshore Rescue Boat (ORB) 7        Personal Water Craft (PWC eg jet ski) or Rescue Water Vehicle (RWV) 8        Surf board/ body board 9        Other (specify in text)  98       Not relevant 99       Not known
<b>Comments</b>	

<b>Variable</b>	Rescue equipment (text)
<b>Definition</b>	What was the type of rescue equipment that was used?
<b>Justification</b>	If 'other' is selected in the Rescue equipment variable, then the rescue equipment that was used is recorded.
<b>Format</b>	text field
<b>Coding source</b>	
<b>Coding frame</b>	free text
<b>Comments</b>	

<b>Variable</b>	First aid																				
<b>Definition</b>	What type of first aid was required by the rescued person?																				
<b>Justification</b>	Description of types of first aid provided.																				
<b>Format</b>	1 digit Numeric																				
<b>Coding source</b>																					
<b>Coding frame</b>	<table> <tr> <td>1</td> <td>None</td> </tr> <tr> <td>2</td> <td>Expired Airway Resuscitation (EAR)</td> </tr> <tr> <td>3</td> <td>Cardio-Pulmonary Resuscitation (CPR)</td> </tr> <tr> <td>4</td> <td>Oxygen administered</td> </tr> <tr> <td>5</td> <td>Defibrillator (Defib)</td> </tr> <tr> <td>6</td> <td>Suspected spinal injuries</td> </tr> <tr> <td>7</td> <td>Marine Stingers</td> </tr> <tr> <td>8</td> <td>Other (specify in the rescue incident text)</td> </tr> <tr> <td>98</td> <td>Not relevant</td> </tr> <tr> <td>99</td> <td>Not known</td> </tr> </table>	1	None	2	Expired Airway Resuscitation (EAR)	3	Cardio-Pulmonary Resuscitation (CPR)	4	Oxygen administered	5	Defibrillator (Defib)	6	Suspected spinal injuries	7	Marine Stingers	8	Other (specify in the rescue incident text)	98	Not relevant	99	Not known
1	None																				
2	Expired Airway Resuscitation (EAR)																				
3	Cardio-Pulmonary Resuscitation (CPR)																				
4	Oxygen administered																				
5	Defibrillator (Defib)																				
6	Suspected spinal injuries																				
7	Marine Stingers																				
8	Other (specify in the rescue incident text)																				
98	Not relevant																				
99	Not known																				
<b>Comments</b>	Note multiple items form the first aid list can be selected.																				

<b>Variable</b>	First aid (text)
<b>Definition</b>	What type of first aid was required by the rescued person?
<b>Justification</b>	If 'other' is selected in the first aid variable, then the first aid that was administered is recorded.
<b>Format</b>	Text field
<b>Coding source</b>	
<b>Coding frame</b>	free text
<b>Comments</b>	

<b>Variable</b>	Ambulance assistance	
<b>Definition</b>	Was an ambulance needed to treat/transport the rescued person?	
<b>Justification</b>	To monitor the use of ambulance services and protocols that require the summoning of ambulance services by the rescue agency.	
<b>Format</b>	1 digit Numeric	
<b>Coding source</b>		
<b>Coding frame</b>	1	no
	2	yes, ambulance used by rescued person
	3	yes, ambulance refused by rescued person
	9	Not known
<b>Comments</b>		

<b>Variable</b>	Alcohol or other drugs
<b>Definition</b>	Was the rescued person under the influence of alcohol or other drugs?
<b>Justification</b>	To try and estimate the contribution of suspected alcohol and drug use to the need to be rescued from the water.
<b>Format</b>	1 digit Numeric
<b>Coding source</b>	SLS coastal incident database
<b>Coding frame</b>	1        neither, not suspected 2        Suspected alcohol 3        Suspected drugs 4        Suspected alcohol and drugs  9        not known
<b>Comments</b>	Signs of suspected alcohol use might involve slurred speech, unsteadiness on the feet, smell of intoxicating liquor.

<b>Variable</b>	Rescue - text
<b>Definition</b>	Describe brief details of the rescue incident
<b>Justification</b>	
<b>Format</b>	text
<b>Coding source</b>	
<b>Coding frame</b>	free text
<b>Comments</b>	<p>Include details of any factors that contributed to the incident taking place? (eg medical condition, unfitness, environmental hazards etc)</p> <p>If the rescued person was identified by a board rider who was in the water at the time of the incident this is to be stated in the text here.</p> <p>A copy of the report provided to the council regarding the rescue could be attached here.</p>

<b>Variable</b>	Time period
<b>Definition</b>	The time period in which the hourly observations occurred.
<b>Justification</b>	To determine patterns of major rescues, rescues and preventive actions.
<b>Format</b>	10 digit Numeric
<b>Coding source</b>	24 hour clock
<b>Coding frame</b>	hhmm  Eg 2.00pm would be 1400  9999      not known
<b>Comments</b>	

<b>Variable</b>	Lifeguards/ lifesavers
<b>Definition</b>	The number of lifeguards/lifesavers currently on patrol on the beach.
<b>Justification</b>	To determine the number of lifeguards/lifesavers present on the beach.
<b>Format</b>	10 digit Numeric
<b>Coding source</b>	
<b>Coding frame</b>	number
<b>Comments</b>	

<b>Variable</b>	High tide
<b>Definition</b>	What time was high tide on the day of the rescue?
<b>Justification</b>	To establish the conditions that were present on the day of the rescue.
<b>Format</b>	4 digit Numeric
<b>Coding source</b>	24 hour clock
<b>Coding frame</b>	hhmm  Eg 4.00pm would be 1600  9998      not relevant (eg public pool) 9999      not known
<b>Comments</b>	

<b>Variable</b>	Low tide
<b>Definition</b>	What time was low tide on the day of the rescue?
<b>Justification</b>	To establish the conditions that were present on the day of the rescue.
<b>Format</b>	4 digit Numeric
<b>Coding source</b>	24 hour clock
<b>Coding frame</b>	hhmm  Eg 6.00am would be 0600  9998      not relevant (eg public pool) 9999      not known
<b>Comments</b>	

<b>Variable</b>	Swimming flags area
<b>Definition</b>	The location of the swimming flags area on the beach for the last hour.
<b>Justification</b>	To establish the conditions that were present on the day of the rescue.
<b>Format</b>	10 digit Numeric
<b>Coding source</b>	
<b>Coding frame</b>	number
<b>Comments</b>	Complete for first observation then any time flags are moved throughout the day.

<b>Variable</b>	Major rescues – exact in flagged area
<b>Definition</b>	Exact count of the number of major rescues that took place within the flagged area in the last hour.
<b>Justification</b>	An exact count of the number of people who were rescued in a major rescue within the flagged area in the last hour.
<b>Format</b>	10 digit Numeric
<b>Coding source</b>	
<b>Coding frame</b>	number
<b>Comments</b>	If an exact count of the number of major rescues in the flagged area cannot be conducted than an estimation of the number of major rescues should be attempted.

<b>Action</b>	<b>Definition</b>
<b>Major rescue</b>	any rescue where the rescue of a person involved more then one lifeguard/lifesaver or a member of the public to render assistance OR where the rescued persons had to be resuscitated OR where an other agency had to render assistance (eg. ambulance, rescue helicopter).
<b>Rescue</b>	any rescue where a person was physically assisted or supported to return to shore or other place of safety (eg. retrieving a person in difficulty).
<b>Preventive action</b>	any water safety advice provided to the public (eg. asking people to swim between the flags; use of PA and/or whistle).

<b>Variable</b>	Major rescues – exact outside flagged area
<b>Definition</b>	Exact count of the number of major rescues that took place outside the flagged area in the last hour.
<b>Justification</b>	An exact count of the number of people who were rescued in a major rescue outside the flagged area in the last hour.
<b>Format</b>	10 digit Numeric
<b>Coding source</b>	
<b>Coding frame</b>	number
<b>Comments</b>	If an exact count of the number of major rescues outside the flagged area cannot be conducted than an estimation of the number of major rescues should be attempted.

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<b>Major rescue</b>	any rescue where the rescue of a person involved more then one lifeguard/lifesaver or a member of the public to render assistance OR where the rescued persons had to be resuscitated OR where an other agency had to render assistance (eg. ambulance, rescue helicopter).
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<b>Preventive action</b>	any water safety advice provided to the public (eg. asking people to swim between the flags; use of PA and/or whistle).

<b>Variable</b>	Major rescues – exact total
<b>Definition</b>	Exact count of the number of major rescues that took place in the last hour (both within and outside the flagged area).
<b>Justification</b>	An exact count of the number of people who were rescued in a major rescue both within and outside the flagged area in the last hour.
<b>Format</b>	10 digit Numeric
<b>Coding source</b>	
<b>Coding frame</b>	number
<b>Comments</b>	If an exact count of the number of major rescues cannot be conducted than an estimation of the number of major rescues should be attempted.

<b>Action</b>	<b>Definition</b>
<b>Major rescue</b>	any rescue where the rescue of a person involved more then one lifeguard/lifesaver or a member of the public to render assistance OR where the rescued persons had to be resuscitated OR where an other agency had to render assistance (eg. ambulance, rescue helicopter).
<b>Rescue</b>	any rescue where a person was physically assisted or supported to return to shore or other place of safety (eg. retrieving a person in difficulty).
<b>Preventive action</b>	any water safety advice provided to the public (eg. asking people to swim between the flags; use of PA and/or whistle).

<b>Variable</b>	Major rescues – estimate in flagged area
<b>Definition</b>	Estimate of the number of major rescues that took place within the flagged area in the last hour.
<b>Justification</b>	Estimate of the number of people who were rescued in a major rescue within the flagged area in the last hour.
<b>Format</b>	10 digit Numeric
<b>Coding source</b>	
<b>Coding frame</b>	number
<b>Comments</b>	If an exact count of the number of major rescues in the flagged area cannot be conducted than an estimation of the number of major rescues should be attempted.

<b>Action</b>	<b>Definition</b>
<b>Major rescue</b>	any rescue where the rescue of a person involved more then one lifeguard/lifesaver or a member of the public to render assistance OR where the rescued persons had to be resuscitated OR where an other agency had to render assistance (eg. ambulance, rescue helicopter).
<b>Rescue</b>	any rescue where a person was physically assisted or supported to return to shore or other place of safety (eg. retrieving a person in difficulty).
<b>Preventive action</b>	any water safety advice provided to the public (eg. asking people to swim between the flags; use of PA and/or whistle).

<b>Variable</b>	Major rescues – estimate outside flagged area
<b>Definition</b>	Estimate of the number of major rescues that took place outside the flagged area in the last hour.
<b>Justification</b>	Estimate of the number of people who were rescued in a major rescue outside the flagged area in the last hour.
<b>Format</b>	10 digit Numeric
<b>Coding source</b>	
<b>Coding frame</b>	number
<b>Comments</b>	If an exact count of the number of major rescues outside the flagged area cannot be conducted than an estimation of the number of major rescues should be attempted.

<b>Action</b>	<b>Definition</b>
<b>Major rescue</b>	any rescue where the rescue of a person involved more then one lifeguard/lifesaver or a member of the public to render assistance OR where the rescued persons had to be resuscitated OR where an other agency had to render assistance (eg. ambulance, rescue helicopter).
<b>Rescue</b>	any rescue where a person was physically assisted or supported to return to shore or other place of safety (eg. retrieving a person in difficulty).
<b>Preventive action</b>	any water safety advice provided to the public (eg. asking people to swim between the flags; use of PA and/or whistle).

<b>Variable</b>	Major rescues – estimate total
<b>Definition</b>	Estimate of the number of major rescues that took place in the last hour (both within and outside the flagged area).
<b>Justification</b>	Estimate of the number of people who were rescued in a major rescue both within and outside the flagged area in the last hour.
<b>Format</b>	10 digit Numeric
<b>Coding source</b>	
<b>Coding frame</b>	number
<b>Comments</b>	If an exact count of the number of major rescues cannot be conducted than an estimation of the number of major rescues should be attempted.

<b>Action</b>	<b>Definition</b>
<b>Major rescue</b>	any rescue where the rescue of a person involved more then one lifeguard/lifesaver or a member of the public to render assistance OR where the rescued persons had to be resuscitated OR where an other agency had to render assistance (eg. ambulance, rescue helicopter).
<b>Rescue</b>	any rescue where a person was physically assisted or supported to return to shore or other place of safety (eg. retrieving a person in difficulty).
<b>Preventive action</b>	any water safety advice provided to the public (eg. asking people to swim between the flags; use of PA and/or whistle).

<b>Variable</b>	Rescues – exact in flagged area
<b>Definition</b>	Exact count of the number of rescues that took place within the flagged area in the last hour.
<b>Justification</b>	An exact count of the number of people who were rescued in a rescue within the flagged area in the last hour.
<b>Format</b>	10 digit Numeric
<b>Coding source</b>	
<b>Coding frame</b>	number
<b>Comments</b>	If an exact count of the number of rescues in the flagged area cannot be conducted than an estimation of the number of rescues should be attempted.

<b>Action</b>	<b>Definition</b>
<b>Major rescue</b>	any rescue where the rescue of a person involved more then one lifeguard/lifesaver or a member of the public to render assistance OR where the rescued persons had to be resuscitated OR where an other agency had to render assistance (eg. ambulance, rescue helicopter).
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<b>Variable</b>	Rescues – exact outside flagged area
<b>Definition</b>	Exact count of the number of rescues that took place outside the flagged area in the last hour.
<b>Justification</b>	An exact count of the number of people who were rescued in a rescue outside the flagged area in the last hour.
<b>Format</b>	10 digit Numeric
<b>Coding source</b>	
<b>Coding frame</b>	number
<b>Comments</b>	If an exact count of the number of rescues outside the flagged area cannot be conducted than an estimation of the number of rescues should be attempted.

<b>Action</b>	<b>Definition</b>
<b>Major rescue</b>	any rescue where the rescue of a person involved more then one lifeguard/lifesaver or a member of the public to render assistance OR where the rescued persons had to be resuscitated OR where an other agency had to render assistance (eg. ambulance, rescue helicopter).
<b>Rescue</b>	any rescue where a person was physically assisted or supported to return to shore or other place of safety (eg. retrieving a person in difficulty).
<b>Preventive action</b>	any water safety advice provided to the public (eg. asking people to swim between the flags; use of PA and/or whistle).

<b>Variable</b>	Rescues – exact total
<b>Definition</b>	Exact count of the number of rescues that took place in the last hour (both within and outside the flagged area).
<b>Justification</b>	An exact count of the number of people who were rescued in a rescue both within and outside the flagged area in the last hour.
<b>Format</b>	10 digit Numeric
<b>Coding source</b>	
<b>Coding frame</b>	number
<b>Comments</b>	If an exact count of the number of rescues cannot be conducted than an estimation of the number of rescues should be attempted.

<b>Action</b>	<b>Definition</b>
<b>Major rescue</b>	any rescue where the rescue of a person involved more then one lifeguard/lifesaver or a member of the public to render assistance OR where the rescued persons had to be resuscitated OR where an other agency had to render assistance (eg. ambulance, rescue helicopter).
<b>Rescue</b>	any rescue where a person was physically assisted or supported to return to shore or other place of safety (eg. retrieving a person in difficulty).
<b>Preventive action</b>	any water safety advice provided to the public (eg. asking people to swim between the flags; use of PA and/or whistle).

<b>Variable</b>	Rescues – estimate in flagged area
<b>Definition</b>	Estimate of the number of rescues that took place within the flagged area in the last hour.
<b>Justification</b>	Estimate of the number of people who were rescued in a rescue both within and outside the flagged area in the last hour.
<b>Format</b>	10 digit Numeric
<b>Coding source</b>	
<b>Coding frame</b>	number
<b>Comments</b>	If an exact count of the number of rescues in the flagged area cannot be conducted than an estimation of the number of rescues should be attempted.

<b>Action</b>	<b>Definition</b>
<b>Major rescue</b>	any rescue where the rescue of a person involved more then one lifeguard/lifesaver or a member of the public to render assistance OR where the rescued persons had to be resuscitated OR where an other agency had to render assistance (eg. ambulance, rescue helicopter).
<b>Rescue</b>	any rescue where a person was physically assisted or supported to return to shore or other place of safety (eg. retrieving a person in difficulty).
<b>Preventive action</b>	any water safety advice provided to the public (eg. asking people to swim between the flags; use of PA and/or whistle).

<b>Variable</b>	Rescue – estimate outside flagged area
<b>Definition</b>	Estimate of the number of rescues that took place outside the flagged area in the last hour.
<b>Justification</b>	Estimate of the number of people who were rescued in a rescue both within and outside the flagged area in the last hour.
<b>Format</b>	10 digit Numeric
<b>Coding source</b>	
<b>Coding frame</b>	number
<b>Comments</b>	If an exact count of the number of rescues outside the flagged area cannot be conducted than an estimation of the number of rescues should be attempted.

<b>Action</b>	<b>Definition</b>
<b>Major rescue</b>	any rescue where the rescue of a person involved more then one lifeguard/lifesaver or a member of the public to render assistance OR where the rescued persons had to be resuscitated OR where an other agency had to render assistance (eg. ambulance, rescue helicopter).
<b>Rescue</b>	any rescue where a person was physically assisted or supported to return to shore or other place of safety (eg. retrieving a person in difficulty).
<b>Preventive action</b>	any water safety advice provided to the public (eg. asking people to swim between the flags; use of PA and/or whistle).

<b>Variable</b>	Rescues – estimate total
<b>Definition</b>	Estimate of the number of rescues that took place in the last hour (both within and outside the flagged area).
<b>Justification</b>	Estimate of the number of people who were rescued in a rescue both within and outside the flagged area in the last hour.
<b>Format</b>	10 digit Numeric
<b>Coding source</b>	
<b>Coding frame</b>	number
<b>Comments</b>	If an exact count of the number of rescues cannot be conducted than an estimation of the number of rescues should be attempted.

<b>Action</b>	<b>Definition</b>
<b>Major rescue</b>	any rescue where the rescue of a person involved more then one lifeguard/lifesaver or a member of the public to render assistance OR where the rescued persons had to be resuscitated OR where an other agency had to render assistance (eg. ambulance, rescue helicopter).
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<b>Preventive action</b>	any water safety advice provided to the public (eg. asking people to swim between the flags; use of PA and/or whistle).

<b>Variable</b>	Preventive actions – exact in flagged area
<b>Definition</b>	Exact count of the number of preventive actions that took place within the flagged area in the last hour.
<b>Justification</b>	An exact count of the preventive actions given within the flagged area in the last hour.
<b>Format</b>	10 digit Numeric
<b>Coding source</b>	
<b>Coding frame</b>	number
<b>Comments</b>	If an exact count of the number of preventive actions in the flagged area cannot be conducted than an estimation of the number of preventive actions should be attempted.

<b>Action</b>	<b>Definition</b>
<b>Major rescue</b>	any rescue where the rescue of a person involved more then one lifeguard/lifesaver or a member of the public to render assistance OR where the rescued persons had to be resuscitated OR where an other agency had to render assistance (eg. ambulance, rescue helicopter).
<b>Rescue</b>	any rescue where a person was physically assisted or supported to return to shore or other place of safety (eg. retrieving a person in difficulty).
<b>Preventive action</b>	any water safety advice provided to the public (eg. asking people to swim between the flags; use of PA and/or whistle).

<b>Variable</b>	Preventive actions – exact outside flagged area
<b>Definition</b>	Exact count of the number of preventive actions that took place outside the flagged area in the last hour.
<b>Justification</b>	An exact count of the number of preventive actions given outside the flagged area in the last hour.
<b>Format</b>	10 digit Numeric
<b>Coding source</b>	
<b>Coding frame</b>	number
<b>Comments</b>	If an exact count of the number of preventive actions outside the flagged area cannot be conducted than an estimation of the number of preventive actions should be attempted.

<b>Action</b>	<b>Definition</b>
<b>Major rescue</b>	any rescue where the rescue of a person involved more then one lifeguard/lifesaver or a member of the public to render assistance OR where the rescued persons had to be resuscitated OR where an other agency had to render assistance (eg. ambulance, rescue helicopter).
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<b>Preventive action</b>	any water safety advice provided to the public (eg. asking people to swim between the flags; use of PA and/or whistle).

<b>Variable</b>	Preventive actions – exact total
<b>Definition</b>	Exact count of the number of preventive actions that took place in the last hour (both within and outside the flagged area).
<b>Justification</b>	An exact count of the number of preventive actions given within and outside the flagged area in the last hour.
<b>Format</b>	10 digit Numeric
<b>Coding source</b>	
<b>Coding frame</b>	number
<b>Comments</b>	If an exact count of the number of preventive actions cannot be conducted than an estimation of the number of preventive actions should be attempted.

<b>Action</b>	<b>Definition</b>
<b>Major rescue</b>	any rescue where the rescue of a person involved more then one lifeguard/lifesaver or a member of the public to render assistance OR where the rescued persons had to be resuscitated OR where an other agency had to render assistance (eg. ambulance, rescue helicopter).
<b>Rescue</b>	any rescue where a person was physically assisted or supported to return to shore or other place of safety (eg. retrieving a person in difficulty).
<b>Preventive action</b>	any water safety advice provided to the public (eg. asking people to swim between the flags; use of PA and/or whistle).

<b>Variable</b>	Preventive actions – estimate in flagged area
<b>Definition</b>	Estimate of the number of preventive actions that took place within the flagged area in the last hour.
<b>Justification</b>	Estimate of the number of preventive actions given within the flagged area in the last hour.
<b>Format</b>	10 digit Numeric
<b>Coding source</b>	
<b>Coding frame</b>	number
<b>Comments</b>	If an exact count of the number of preventive actions in the flagged area cannot be conducted than an estimation of the number of preventive actions should be attempted.

<b>Action</b>	<b>Definition</b>
<b>Major rescue</b>	any rescue where the rescue of a person involved more then one lifeguard/lifesaver or a member of the public to render assistance OR where the rescued persons had to be resuscitated OR where an other agency had to render assistance (eg. ambulance, rescue helicopter).
<b>Rescue</b>	any rescue where a person was physically assisted or supported to return to shore or other place of safety (eg. retrieving a person in difficulty).
<b>Preventive action</b>	any water safety advice provided to the public (eg. asking people to swim between the flags; use of PA and/or whistle).

<b>Variable</b>	Preventive actions – estimate outside flagged area
<b>Definition</b>	Estimate of the number of preventive actions that took place outside the flagged area in the last hour.
<b>Justification</b>	Estimate of the number of preventive actions given outside the flagged area in the last hour.
<b>Format</b>	10 digit Numeric
<b>Coding source</b>	
<b>Coding frame</b>	number
<b>Comments</b>	If an exact count of the number of preventive actions outside the flagged area cannot be conducted than an estimation of the number of preventive actions should be attempted.

<b>Action</b>	<b>Definition</b>
<b>Major rescue</b>	any rescue where the rescue of a person involved more then one lifeguard/lifesaver or a member of the public to render assistance OR where the rescued persons had to be resuscitated OR where an other agency had to render assistance (eg. ambulance, rescue helicopter).
<b>Rescue</b>	any rescue where a person was physically assisted or supported to return to shore or other place of safety (eg. retrieving a person in difficulty).
<b>Preventive action</b>	any water safety advice provided to the public (eg. asking people to swim between the flags; use of PA and/or whistle).

<b>Variable</b>	Preventive actions – estimate total
<b>Definition</b>	Estimate of the number of preventive actions that took place in the last hour (both within and outside the flagged area).
<b>Justification</b>	Estimate of the number of preventive actions given both within and outside the flagged area in the last hour.
<b>Format</b>	10 digit Numeric
<b>Coding source</b>	
<b>Coding frame</b>	number
<b>Comments</b>	If an exact count of the number of preventive actions cannot be conducted than an estimation of the number of preventive actions should be attempted.

<b>Action</b>	<b>Definition</b>
<b>Major rescue</b>	any rescue where the rescue of a person involved more then one lifeguard/lifesaver or a member of the public to render assistance OR where the rescued persons had to be resuscitated OR where an other agency had to render assistance (eg. ambulance, rescue helicopter).
<b>Rescue</b>	any rescue where a person was physically assisted or supported to return to shore or other place of safety (eg. retrieving a person in difficulty).
<b>Preventive action</b>	any water safety advice provided to the public (eg. asking people to swim between the flags; use of PA and/or whistle).

<b>Variable</b>	Weather	
<b>Definition</b>	What were the weather conditions at the time of the rescue?	
<b>Justification</b>	To establish the weather conditions that were present at the time of the rescue.	
<b>Format</b>	1 digit Numeric	
<b>Coding source:</b>	SLS patrol log	
<b>Coding frame</b>	1	fine
	2	raining
	3	overcast
	8	not relevant (eg indoor pool)
	9	not known
<b>Comments</b>		

<b>Variable</b>	Air temperature
<b>Definition</b>	What was the estimated air temperature at the time of the rescue?
<b>Justification</b>	To establish the conditions that were present at the time of the rescue.
<b>Format</b>	2 digit Numeric
<b>Coding source</b>	degrees celsius
<b>Coding frame</b>	estimated air temperature 999          not known
<b>Comments</b>	

<b>Variable</b>	Water temperature
<b>Definition</b>	What was the water temperature at the time of the rescue?
<b>Justification</b>	To establish the conditions that were present at the time of the rescue.
<b>Format</b>	2 digit Numeric
<b>Coding source</b>	degrees celsius
<b>Coding frame</b>	water temperature 999      not known
<b>Comments</b>	

<b>Variable</b>	Sea conditions												
<b>Definition</b>	What were the sea surface conditions at the time of the rescue?												
<b>Justification</b>	To establish the conditions that were present at the time of the rescue.												
<b>Format</b>	1 digit Numeric												
<b>Coding source</b>	Waterways Authority Boating Incident Form												
<b>Coding frame</b>	<table> <tr> <td>1</td> <td>calm</td> </tr> <tr> <td>2</td> <td>choppy</td> </tr> <tr> <td>3</td> <td>rough</td> </tr> <tr> <td>4</td> <td>very rough</td> </tr> <tr> <td>8</td> <td>not relevant (eg public pool)</td> </tr> <tr> <td>9</td> <td>not known</td> </tr> </table>	1	calm	2	choppy	3	rough	4	very rough	8	not relevant (eg public pool)	9	not known
1	calm												
2	choppy												
3	rough												
4	very rough												
8	not relevant (eg public pool)												
9	not known												
<b>Comments</b>													

<b>Variable</b>	Wind conditions														
<b>Definition</b>	What were the wind conditions at the time of the rescue?														
<b>Justification</b>	To establish the wind conditions that were present at the time of the rescue.														
<b>Format</b>	1 digit Numeric														
<b>Coding source</b>	Waterways Authority Boating Incident Report														
<b>Coding frame</b>	<table> <tr> <td>1</td> <td>none</td> </tr> <tr> <td>2</td> <td>light</td> </tr> <tr> <td>3</td> <td>moderate</td> </tr> <tr> <td>4</td> <td>strong</td> </tr> <tr> <td>5</td> <td>storm</td> </tr> <tr> <td>8</td> <td>not relevant (eg indoor pool)</td> </tr> <tr> <td>9</td> <td>not known</td> </tr> </table>	1	none	2	light	3	moderate	4	strong	5	storm	8	not relevant (eg indoor pool)	9	not known
1	none														
2	light														
3	moderate														
4	strong														
5	storm														
8	not relevant (eg indoor pool)														
9	not known														
<b>Comments</b>															

<b>Location</b>	<b>Definition</b>
<b>Light</b>	Greater than 1 and less than or equal to 8 knots.
<b>Moderate</b>	Greater than 8 and less than or equal to 15 knots.
<b>Strong</b>	Greater than 15 and less than or equal to 30 knots.
<b>Storm</b>	Over 30knots.

<b>Variable</b>	Wind direction1
<b>Definition</b>	What was the wind direction at the time of the rescue?
<b>Justification</b>	To establish the wind conditions that were present at the time of the rescue.
<b>Format</b>	free text
<b>Coding source</b>	SLS patrol log
<b>Coding frame</b>	Text Not known

**Comments**

Categories include: North; North-East; East; South-East; South; South-West; West; North-West

<b>Variable</b>	Wind direction2
<b>Definition</b>	What was the wind direction at the time of the rescue?
<b>Justification</b>	To establish the wind conditions that were present at the time of the rescue.
<b>Format</b>	1 digit Numeric
<b>Coding source</b>	SLS patrol log
<b>Coding frame</b>	1        on shore 2        off shore  9        Not known
<b>Comments</b>	

<b>Variable</b>	Wave type												
<b>Definition</b>	What was the wave type at the time of the rescue?												
<b>Justification</b>	To establish the conditions that were present at the time of the rescue.												
<b>Format</b>	1 digit Numeric												
<b>Coding source</b>	SLS lifeguard service daily report form												
<b>Coding frame</b>	<table> <tr> <td>1</td> <td>spilling</td> </tr> <tr> <td>2</td> <td>surging</td> </tr> <tr> <td>3</td> <td>plunging/dumpers</td> </tr> <tr> <td>4</td> <td>flat (no waves)</td> </tr> <tr> <td>8</td> <td>not relevant (eg public pool)</td> </tr> <tr> <td>9</td> <td>not known</td> </tr> </table>	1	spilling	2	surging	3	plunging/dumpers	4	flat (no waves)	8	not relevant (eg public pool)	9	not known
1	spilling												
2	surging												
3	plunging/dumpers												
4	flat (no waves)												
8	not relevant (eg public pool)												
9	not known												

**Comments**

<b>Wave type</b>	<b>Definition</b>
<b>Spilling</b>	Spilling waves occur when the crest (or top) of the wave tumbles down the face (or front) of the wave. As the tide gets lower and the sand bank on which the waves are breaking becomes more shallow, this type of wave will form tunnels or “tubes”.
<b>Surging</b>	Surging waves may never actually break as they approach The waters edge, as a result of the water being very deep beneath them. They do not lose speed or gain height. Surging waves can knock swimmers off their feet and carry them back into deep water. For this reason they can be very dangerous, especially around rocks.
<b>Plunging or dumpers</b>	Plunging waves break with tremendous force and can easily throw a swimmer to the bottom. They usually occur at low tide, when the sand banks are shallow and there is less water for the waves to break on to. This wave type is Dangerous and is a common cause of spinal injuries.
<b>Flat</b>	No spilling, surging or plunging waves present.

<b>Variable</b>	Wave height
<b>Definition</b>	What was the wave height at the time of the rescue?
<b>Justification</b>	To establish the conditions that were present at the time of the rescue.
<b>Format</b>	1 digit Numeric
<b>Coding source</b>	SLS Coastal Incident Database, metres
<b>Coding frame</b>	1        small (0.5-1.0 metres) 2        moderate (1.0-2.0 metres) 3        large (2.0 + metres)  8        not relevant (eg public pool) 9        not known
<b>Comments</b>	<i>Wave height</i> is vertical distance between the top of crest and bottom of trough.

<b>Variable</b>	Rip																
<b>Definition</b>	Was there a rip present at the rescue site?																
<b>Justification</b>	To establish the conditions that were present at the time of the rescue.																
<b>Format</b>	1 digit Numeric																
<b>Coding source</b>	SLS Coastal Incident Database																
<b>Coding frame</b>	<table> <tr> <td>1</td> <td>no rip</td> </tr> <tr> <td>2</td> <td>yes, permanent rip</td> </tr> <tr> <td>3</td> <td>yes, fixed rip</td> </tr> <tr> <td>4</td> <td>yes, flash rip</td> </tr> <tr> <td>5</td> <td>yes, travelling rip</td> </tr> <tr> <td>6</td> <td>yes, littoral rip</td> </tr> <tr> <td>8</td> <td>not relevant (eg public pool)</td> </tr> <tr> <td>9</td> <td>not known</td> </tr> </table>	1	no rip	2	yes, permanent rip	3	yes, fixed rip	4	yes, flash rip	5	yes, travelling rip	6	yes, littoral rip	8	not relevant (eg public pool)	9	not known
1	no rip																
2	yes, permanent rip																
3	yes, fixed rip																
4	yes, flash rip																
5	yes, travelling rip																
6	yes, littoral rip																
8	not relevant (eg public pool)																
9	not known																

## Comments

Rip type	Definition
<b>Permanent</b>	The permanent rip current will remain in the same area for months or even years. The reason for its permanent nature is that the ocean bottom and prevailing conditions change very little. Other contributing factors can be rock groynes <sup>1</sup> , drainage pipes or permanent structures such as a pier.
<b>Fixed</b>	Fixed rip currents are accompanied by a hole or gully on the ocean floor with sand as its primary base. Once established, the fixed rip may last from several hours to many months. The length of time depends on the movement of sand.
<b>Flash</b>	The Flash rip current is temporary in nature for any given location. It is caused by a large surf build-up in a short period of time, which increases the volume of water above sea level. Flash rips appear suddenly, usually without warning. The seaward pull may be intense and is relatively short-lived.
<b>Travelling</b>	A travelling rip current is propelled along the beach frontage by a strong littoral current. Rip currents of this type may travel over large segments of the beach before dissipating.
<b>Littoral</b>	Inshore currents are more commonly known to the lifesaver as “drifts”, “Sidesweeps” or “littoral currents”. An inshore drift is a current that moves parallel to the shore. It can be either fast flowing or barely noticeable. The intensity of the current is greater inside the surf line, diminishing as you move away from the shoreline. Inshore drifts are not always dangerous for an average swimmer and provide a free ride down the beach. In other locations, these currents can run along and wash into a rip current or gutter with a strong “run out”, dragging weaker swimmers with it.

<sup>1</sup> A rock groyne is an outcrop of rocks on the sea floor which changes the flow of the water. They can be visible on the surface or submerged. An example, even though man made, is the side of a rock pool.

<b>Variable</b>	Beach attendance1 - exact
<b>Definition</b>	Exact count of the number of people present on the sand.
<b>Justification</b>	An exact count of the number of people who could have been at risk at the time of the rescue event.
<b>Format</b>	10 digit Numeric
<b>Coding source</b>	
<b>Coding frame</b>	number
<b>Comments</b>	If an exact count of the number of people present on the sand cannot be conducted than an estimation of the number of people should be attempted.

<b>Variable</b>	Beach attendance1 - estimate
<b>Definition</b>	Estimate of the number of people present on the sand.
<b>Justification</b>	An estimate of the number of people who could have been at risk at the time of the rescue event.
<b>Format</b>	10 digit Numeric
<b>Coding source</b>	
<b>Coding frame</b>	number
<b>Comments</b>	If an exact count of the number of people present on the sand cannot be conducted than an estimation of the number of people should be attempted.

<b>Variable</b>	Beach attendance2 - exact
<b>Definition</b>	Exact count of the number of people present in the water between the flags (including the waters edge).
<b>Justification</b>	An exact count of the number of people who could have been at risk at the time of the rescue event.
<b>Format</b>	10 digit Numeric
<b>Coding source</b>	
<b>Coding frame</b>	number
<b>Comments</b>	If an exact count of the number of people present in the water between the flags cannot be conducted than an estimation of the number of people should be attempted.

<b>Variable</b>	Beach attendance2 - estimate
<b>Definition</b>	Estimate of the number of people present in the water between the flags (including the waters edge).
<b>Justification</b>	An estimate of the number of people who could have been at risk at the time of the rescue event.
<b>Format</b>	10 digit Numeric
<b>Coding source</b>	
<b>Coding frame</b>	number
<b>Comments</b>	If an exact count of the number of people present in the water between the flags cannot be conducted than an estimation of the number of people should be attempted.

<b>Variable</b>	Beach attendance3 - exact
<b>Definition</b>	Exact count of the number of people present in the water outside the flags (including the waters edge)
<b>Justification</b>	An exact count of the number of people who could have been at risk at the time of the rescue event.
<b>Format</b>	10 digit Numeric
<b>Coding source</b>	
<b>Coding frame</b>	number
<b>Comments</b>	If an exact count of the number of people present in the water outside the flags cannot be conducted than an estimation of the number of people should be attempted.

<b>Variable</b>	Beach attendance3 - estimate
<b>Definition</b>	Estimate of the number of people present in the water outside the flags (including the waters edge)
<b>Justification</b>	An estimate of the number of people who could have been at risk at the time of the rescue event.
<b>Format</b>	10 digit Numeric
<b>Coding source</b>	
<b>Coding frame</b>	number
<b>Comments</b>	If an exact count of the number of people present in the water outside the flags cannot be conducted than an estimation of the number of people should be attempted.