



World Water Safety

## INTERNATIONAL LIFE SAVING FEDERATION

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### LIFESAVING POSITION STATEMENT - LPS 18

## RIP CURRENT SAFETY ADVICE

### PLAIN LANGUAGE SUMMARY

Rip currents are powerful currents of water moving away from shore. Avoid rip currents by learning how to identify them. If caught in a rip current, conserve your energy and know your options.

### INTRODUCTION

Over the past 15 years a considerable body of research has been conducted into how rip currents behave in terms of flow circulation patterns and flow speed. Coastal scientists, lifeguards and surf educators have used dye, GPS-equipped drifting devices and swimmers (both real and simulated using computer models) to better understand the dynamics of different types of rip currents in a variety of geographic settings.

Collectively, this research has demonstrated and reinforced the complex and variable nature of rip currents with global implications for advice regarding how someone should react and potentially self-escape if caught in one. The primary implication is that a single survival strategy may not work in all situations.

The global effort to better understand the physical behaviour of rip currents as well as recent social science efforts including research on people's knowledge of rip currents and experiences being caught in rip currents, has contributed towards standardising safety advice.

The International Life Saving Federation (ILS) Rescue Commission brought together leading scientists, researchers and beach safety educators and practitioners to form the RipSafe Committee. Based on a review conducted by the committee of existing rip current research, ILS has endorsed a standard suite of rip current safety advice.

While this position statement concentrates on rip current safety advice and does not include a discussion on the various types of rip currents that may present at any one location, a recent review summarises rip current types in relation to their flow circulation behaviour.<sup>(1)</sup>

## THE RIP CURRENT SAFETY ADVICE

### **AVOIDANCE** - Avoid Rip Currents:

1. Seek information – learn about rip currents so that you can identify and avoid them.  
Seven common signs that rip currents may exist are:
  - a. A narrow band of deeper, darker coloured water extending seaward;
  - b. A narrow offshore band extending offshore with fewer breaking waves;
  - c. A disturbed and rippled appearance, surrounded by smoother water;
  - d. Debris floating seaward;
  - e. Foamy, turbulent or discoloured sandy water extending beyond the surf break;
  - f. A large bowl-shaped embayment carved into the beach and shoreline;
  - g. The presence of a natural or manmade boundary such as a pier, groyne or break wall.
2. Reduce your risk - swim near a lifeguard at a supervised location.

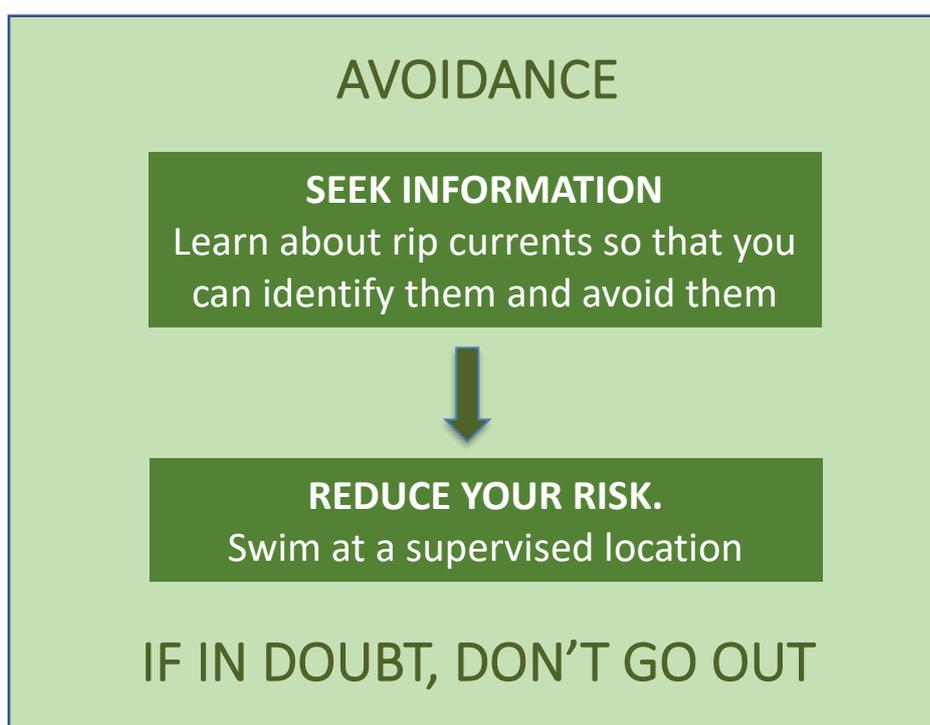
### **IF IN DOUBT, DON'T GO OUT**

### **SURVIVAL** - If you get caught in a Rip Current:

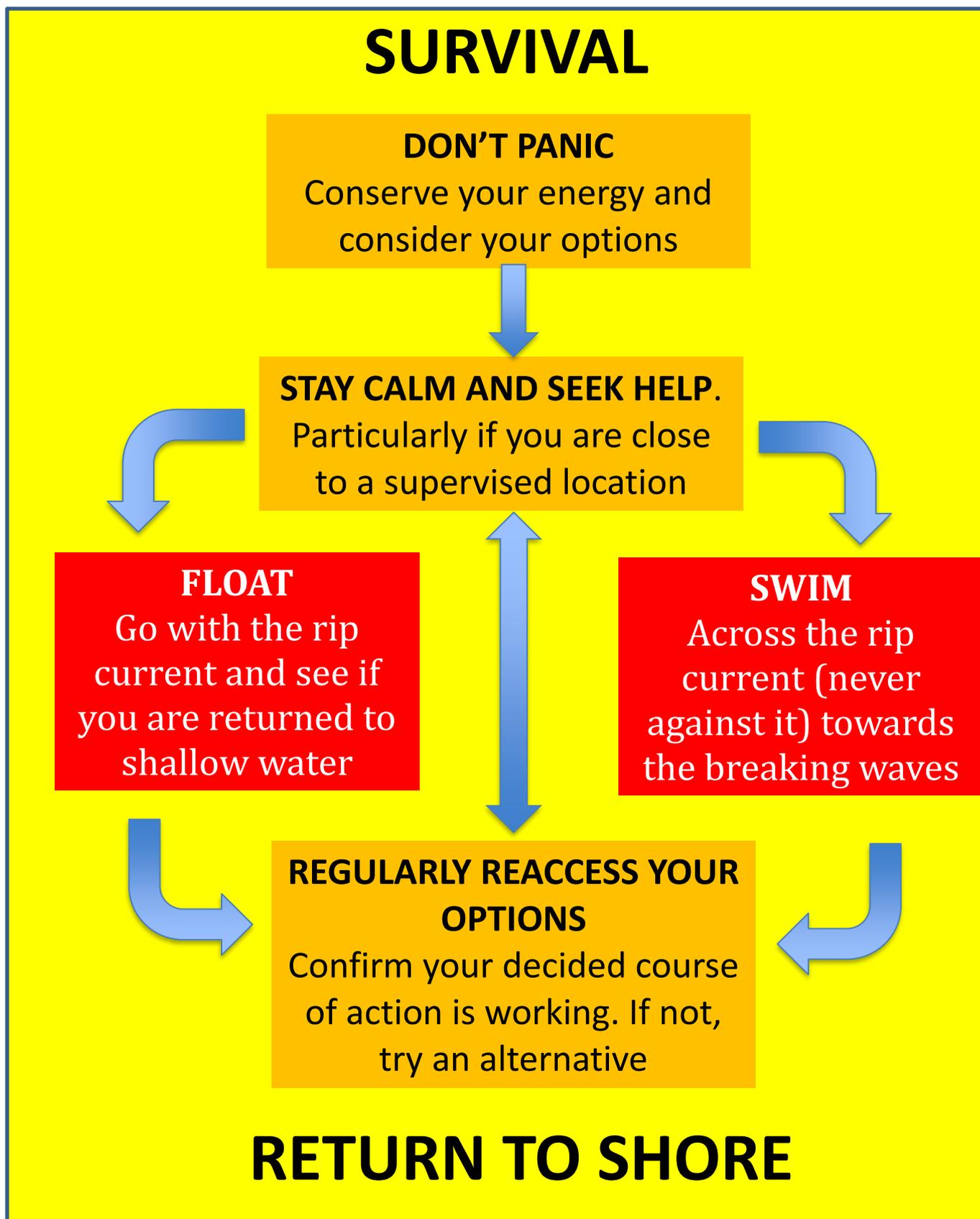
1. Don't panic - conserve your energy and consider your options.
2. Stay calm and seek help – particularly if you are close to a supervised location.
3. Float – go with the rip current and see if you are returned to shallower water.
4. Swim sideways across the rip current (approximately parallel to the beach) towards areas of breaking waves.
5. Regularly reassess the situation – confirm your decided course of action is working. If not, try an alternative. *You may need to change your approach several times before reaching safety.*

### **RETURN TO SHORE**

1. Once you are safely standing in shallow water you can walk, swim, bodysurf back towards the beach at all times staying clear of the rip current?



## IF CAUGHT IN A RIP CURRENT



## BACKGROUND

Rip currents are strong, narrow and seaward flowing currents that occur on any beach or body of water that experiences waves breaking across a wide surf zone<sup>[2]</sup>.

Rip current appearance is highly variable, depending on the local geography, surf conditions, and type of rip<sup>[1][3][4][5]</sup>. Although not restricted just to rip currents, seven common signs that rip currents may exist are:

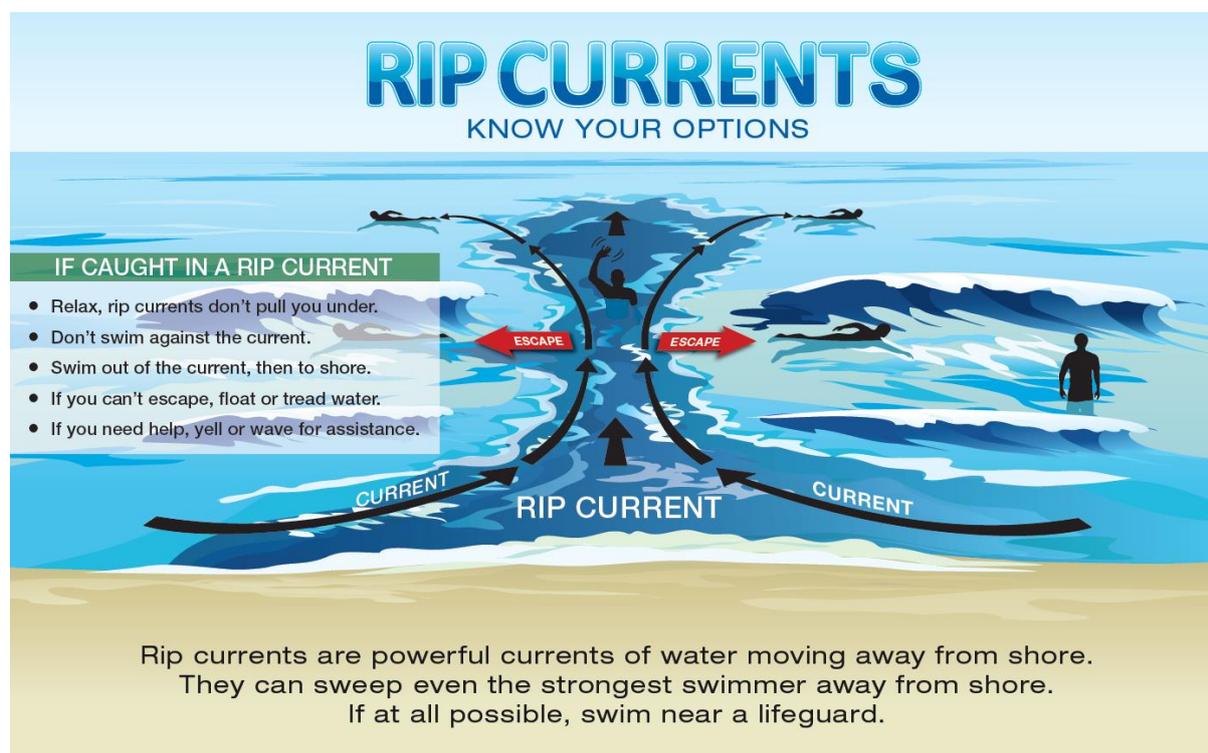
1. A narrow band of deeper, darker coloured water extending seaward;
2. A narrow offshore band extending offshore with fewer breaking waves;
3. A disturbed and rippled appearance, surrounded by smoother water;
4. Debris floating seaward;
5. Foamy, turbulent or discoloured sandy water extending beyond the surf break;
6. A large bowl-shaped embayment carved into the beach and shoreline;
7. The presence of a natural or manmade boundary such as a pier, groyne or break wall.

Rip currents are an important risk to swimmers in the coastal environment<sup>[6][7]</sup>. The risk varies according to several factors such as the weather, wave conditions, tide level, coastal morphology and geology, anthropogenic features as well as the ability and experience of the person in the water. Rip currents continue to represent the major cause of rescues and fatalities at surf beaches around the world. Developing safety advice that is concise, easy to recall and appropriate for the hazard is difficult due to the dynamic nature of the environment. The actions of “swim parallel” or “float” is the better survival strategy. Research has demonstrated that contradictory actions of “swim parallel” and “float” are both appropriate in different situations<sup>[8][9][10][11]</sup>.

Rip currents are inherently complex with flow behaviour varying between different types of rip currents, between adjacent rip currents, and within a single rip current. They are also often difficult to recognise by people who have not been trained in how to spot a rip current<sup>[12][13]</sup>. Different types of rip currents often will require a different survival strategy should a person be caught in one. Without adequate education and awareness of how to spot and avoid a rip current and appropriate survival techniques, people will continue to drown.

A major influence on rip current safety advice is the variability in human response to being caught in a rip current. An individual may choose to float, stay calm, conserve their energy, wave for assistance and wait to see if the rip current returns them to shallow water or are rescued. This is often difficult to do if the rip current is taking you further away from the shore before circulating back towards shore. The other alternative is to take action and swim to safety ensuring they do not swim against the current or tire themselves before reaching safety. This satisfies the human reaction to want to do something (fight or flight)<sup>[15]</sup>, but may lead to exhaustion if the direction is not appropriate and assumes that the person has adequate swimming ability.

Given that each rip current works in a unique way and each person will respond differently, the best advice is to avoid the hazard altogether. Learn how to identify rip currents and avoid them<sup>[14]</sup> or reduce individual risk by swimming at a supervised location<sup>[16]</sup>. If an individual finds themselves in a rip current, the research supports that knowing your options is the most appropriate advice.



## STATEMENT

1. There are different types of rip current that exhibit complex flow behaviour. Therefore, no single piece of rip current safety advice related to rip escape actions will suit all situations.
2. Identify rip currents and avoid entering the water near them. Seven common signs that rip currents may exist are:
  1. A narrow band of deeper, darker coloured water extending seaward;
  2. A narrow offshore band extending offshore with fewer breaking waves;
  3. A disturbed and rippled appearance, surrounded by smoother water;
  4. Debris floating seaward;
  5. Foamy, turbulent or discoloured sandy water extending beyond the surf break;
  6. A large bowl-shaped embayment carved into the beach and shoreline;
  7. The presence of a natural or manmade boundary such as a pier, groyne or break wall.
3. Reduce individual risk by swimming at supervised locations.
4. ILS endorses the following rip current safety advice:

### **AVOIDANCE** - Avoid Rip Currents:

- a. Seek information and be aware – learn about rip currents so that you can identify and avoid them.
- b. Reduce your risk - swim near a lifeguard at a supervised location.

### **IF IN DOUBT, DON'T GO OUT**

### **SURVIVAL - If you get caught in a Rip Current:**

- a. Don't panic – float, conserve your energy and consider your options.
- b. Do not swim directly back to the beach against the rip current flow.
- c. Stay calm and seek help – particularly if you are close to a supervised location.
- d. Float – go with the rip current flow and see if you are returned to shallower water.
- e. Swim across the rip current - towards the breaking waves. If the rip current is flowing straight offshore, this will be in a direction parallel to the beach.
- f. Regularly reassess the situation – if your decided course of action is not working, then try an alternative. *You may need to change your approach several times before reaching safety.*

### **RETURN TO SHORE**

- a. Once you are safely standing in shallow water you can walk, swim, bodysurf back towards the beach at all times staying clear of the rip current?

## **LEVEL OF EVIDENCE**

This document is based on the latest research into rip current behavior and expert consensus.

## **POTENTIAL CONFLICT OF INTEREST STATEMENT**

Several members of the ILS RipSafe Committee have been involved in the research mentioned in this position statement as well as contributing to the major reference material acknowledged in this statement. None of the participants in the consensus process leading to this position statement has a conflict of interest with the stakeholder industry, technology, persons or organisations that are identified and/or impacted by the position statement.

## **ACKNOWLEDGEMENT**

The debate over rip current survival advice will continue. However, this statement is based on research that has involved a significant time and financial investment associated with several research grant programs, academic programs and practitioners who have studied rip current behaviour. The RipSafe Committee would like to acknowledge the following publication for delivering the current consensus relating to rip current safety advice in a concise body of work.

*Bradstreet, A., Brander, R.W., McCarroll, R.J., Brighton, B., Dominey-Howes, D., Drozdewski, D., Sherker, S., Turner, I.L., Roberts, A., MacMahan, J. (2014). Rip current survival principles: towards consistency. Journal of Coastal Research, SI 72, 85-92.*

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## APPROVAL

Policy Statement developed by the ILS RipSafe Committee April 2016. – Updated August 2019  
Updated Policy Statement agreed by the ILS Rescue Commission January 2020