



Rip Currents

A rip is a narrow body of water moving out to sea. It is formed by water seeking to find its own level, usually because of large groups of waves pushing water into the beach. On its return, this water can travel parallel to the shore. This is known as a **feeder current**. The water then finds the lowest part of the beach before it returns to sea to even out the water levels. The larger the surf, the more intense the rip current. Rip currents can be very strong. Rip currents can erode the beach.

While tides can cause strong currents, particularly as water rushes through the entrance to a bay or estuary, tidal action has only a limited effect on currents along most surf beaches. The main cause of rip currents is surf.

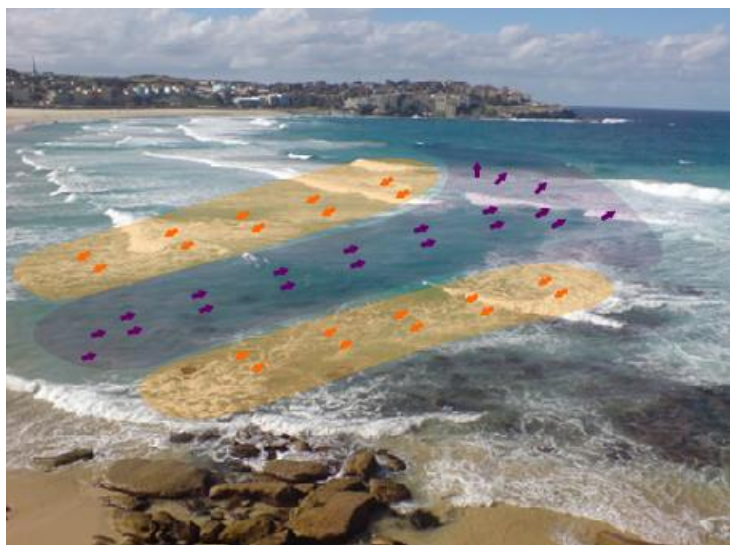


Diagram and photos to show the rip current characteristics
Courtesy of Rob Brander Surf Life Saving Australia



Some rips are permanent while others may be temporary. On long open stretches of beach, as on the west coast of the North Island, rip currents can shift with changing tides and weather patterns. However, on beaches enclosed by headlands, rip currents tend to occur in the same place.

Going to the beach

If you are at a non patrolled surf beach it is very important that you watch the waves for at least ten minutes before you decide where to enter the sea. Your best view would be from an elevated area. How many rips can you see in the North Piha picture?

The best way to avoid rips is to swim at a patrolled beach and between the flags.

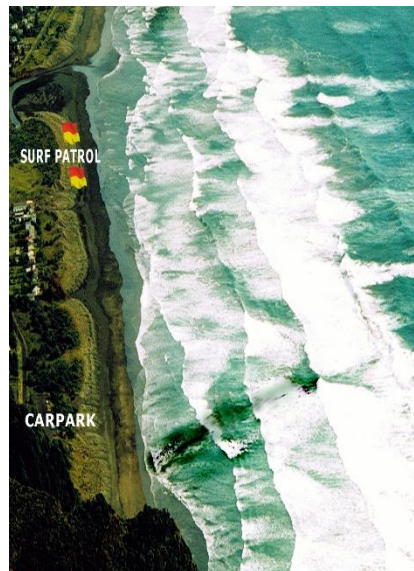


Rips at North Piha beach from the Piha Road
Courtesy of Pauline Eames

What Does A Rip Look Like?

It is often difficult to identify rips because the characteristics of surf varies. On the west coast the sea is often murky while it is clearer on the east coast. To identify a rip look for:

- Calm patches in the surf with waves breaking on either side
- Discoloured water due to sand being stirred up, debris and foam
- Foam on the surface extending beyond the waves
- Debris floating seaward, sea darker colour, indicating deeper water
- Creeks, rivers or harbour mouth flowing onto the beach, this water is already naturally moving out to sea and will form a rip
- Rocky headlands at either end of the beach, this water is deep, and waves do not break here, forming a channel for a rip current



Where is the rip? Where would you swim?

What to do if you are caught in a rip current

Rips currents are the major cause of swimmer difficulties necessitating surf rescues. A rip pulls swimmers away from the shore.

If you are a strong swimmer and able

- Swim slowly across to the nearest breaking waves, the ones that are parallel to the shore. Here the water is not so deep. Swim for 30-40 meters to avoid the feeder currents. Return to the shore through the breaking waves
- Swim and head to the shore at an angle of 45 degrees

If you cannot swim well: Remain Calm! Float. Don't Panic! Do not try and swim against the rip.

- Tired or swimmers with limited ability should ride out the rip. Float flat on your back (saving energy) face beach and raise your arm to signal for assistance
- If you have a boogie board, stay with it and keep your fins on. Once you are out of the rip kick parallel to the shore for 30-40 meters before turning towards the shore

Good things about rips

1. Rips do not go on for ever. They die out beyond the wave zone.
2. Surf life savers, surfers, swimmers and kayakers who want to go beyond the wave zone will use the rip for a quick and easy journey out to the forming waves.

Further information

- Surf Life Saving NZ <http://www.findabeach.co.nz/besafe/hazards/rips/>

- Useful video clips

How to survive beach rip currents. Dr Rob Brander. (5.04 mins, Australian)

<http://www.youtube.com/watch?v=8EpDCRBmCP8>

USLA and NOAA Rip Current PSA

<http://www.youtube.com/watch?v=ytyLMkV2iu0&awid=7199628462731960223-1008>