



**RLSS UK**  
QUALIFIED TRAINER  
ASSESSOR  
2022

# Joe Spencer

## Royal Life Saving Society

### Trainer/Assessor

(It's not my day job)

**With other volunteers I run a Lifesaving Club at the Meadows  
Leisure Centre in Maghull Sefton.**

**[lifesaversclub1@gmail.com](mailto:lifesaversclub1@gmail.com)**

**There are other Lifesaving Clubs in the Liverpool and District Area**

# Why be safe around water?

## Drowning

- Drowning is defined as “experiencing respiratory impairment due to submersion / emersion in a liquid”.
- Outcomes
- How deep does the water need to be to drown in?
- How long?
- “I will know when some is drowning – I will hear the screams for help?”

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  - **Morbidity**
  - **No morbidity**
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- “I will know when some is drowning – I will hear the screams for help?”

**Drowning is silent.**

# Why do people drown? - The drowning chain



1. Lack of education – **not knowing about, ignoring or misjudging danger**
2. Lack of safety advice – **unrestricted access to danger**
3. Lack of supervision – **no adequate supervision**
4. Inability to cope – **not being able to save yourself or be rescued**



# 10 Drowning Facts

**AROUND 44%  
OF ACCIDENTAL DROWNINGS**  
happen between May and August.

**ONLY 30%  
OF PARENTS  
SURVEYED**  
said they were  
'very confident'  
that their child  
knows how to  
stay safe in and  
around water.

(March 2022)

**OVER 80%**  
of those who drown  
accidentally are male.

**80% OF BLACK  
CHILDREN AND 95%  
OF BLACK ADULTS**  
do not swim.

**62.4%**  
of accidental drownings  
happen in inland water.

**AROUND TWO-THIRDS**  
of UK adults surveyed have never  
had any formal training or  
education in water safety.

(March 2022)

**MORE  
THAN 46%**  
never intended to be  
in the water.

Accidental drowning  
takes an average of  
**402 UK AND IRISH  
CITIZENS EACH  
YEAR.**

**LACK OF CONFIDENCE  
AND COMPETENCE**  
in water affects survival rates.

**PEOPLE AGED  
16 TO 30**  
account for 23% of  
drowning fatalities.



**Drowning is preventable.  
Even one drowning is one too many.**





# The drowning chain

All these links were in place for Cameron



1. Lack of education – **not knowing about, ignoring or misjudging danger**
2. Lack of safety advice – **unrestricted access to danger**
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# How does someone who can swim drown in non pool environments?

Why do you think these, and many other strong swimmers, drown every year?

There are lots of hazards to be aware of, particularly at places such as rivers, lakes, quarries, and the beach...

...but cold water might be the biggest killer of all the hazards.

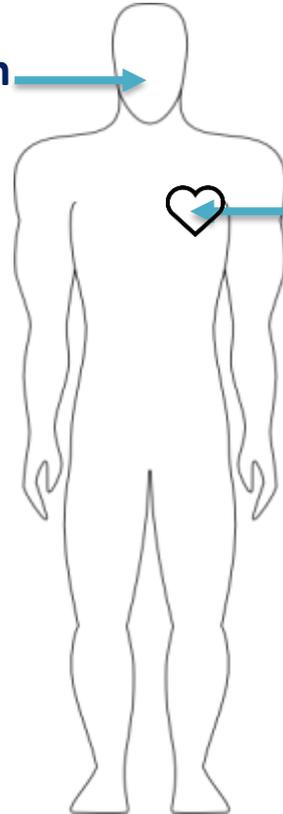
Cold water shock.

# When the cold water first hits you

## Summary

### Big gasps followed by hyperventilation

- Causing dizziness and panic
- If you inhale water you'll start to drown



### Increased blood pressure and heart rate

- Can trigger heart attacks in people with medical conditions

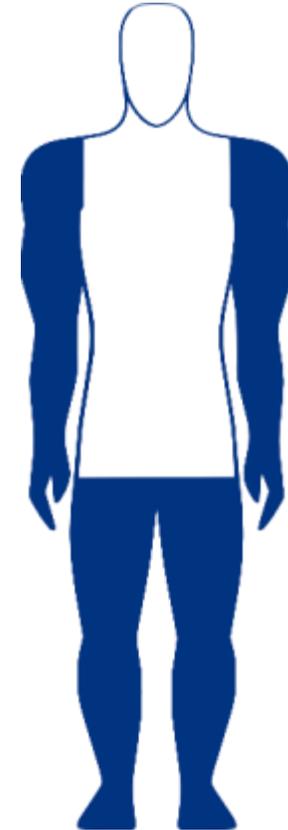
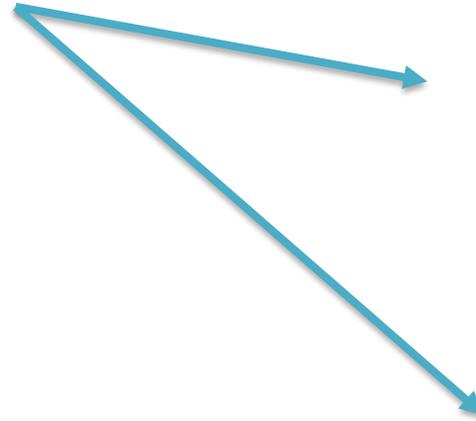
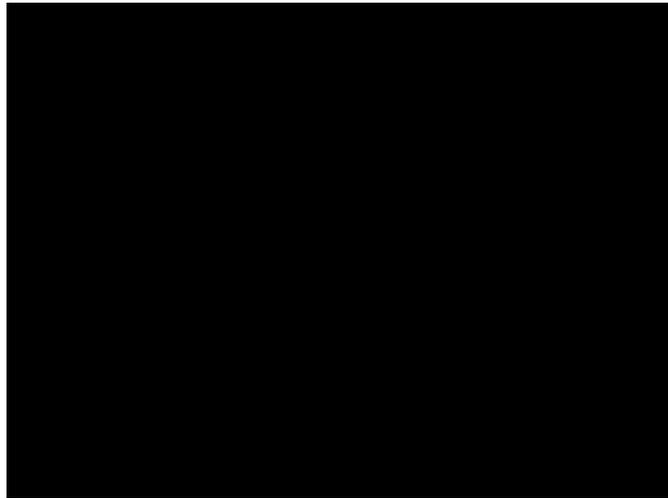
**Lasts for 0 – 3 minutes**

# After the gasping, muscle cooling

## Summary

### Muscle cooling in your arms and legs

- Loss of strength
- Loss of endurance
- Loss of coordination
- Loss of ability to swim = drowning



**3 – 30 minutes**

## What to do when you go into cold water.

- **Enter** the water **slowly and carefully**.
- **Acclimatise** yourself
- **Get onto your back and float** until the effects of the cold water shock pass (0-3 mins). This keeps your **air way clear of the water**.
- If you are pushed into cold water get onto to your back to keep your air way clear of the water.
- If there is a risk of falling into cold water (i.e. boating, kayaking etc **wear a buoyancy aid** even if you are strong swimmer).
- Get out of the water or to a point of safety if you can If you cannot remain still, float on your back and wait for help. Signal for help if see someone who might be able to help (one arm wave and shout help).

**Cold water is a killer!**

# General Safety Around Water

Spot

## Spot the Dangers

Look for dangers whenever you're near water

Advice

## Take Advice

Read the signs

Ask lifeguards and adults

Friend

## Go with a Friend

Always go with friends or family, it's more fun, and they can help in an emergency

Emergency

## Learn what to do in an Emergency

Call 999 (or 112) and shout for help

Never go into the water to help someone

# Safety Around the Home



Who is most at risk around the house?

- Young children, elderly, those with medical conditions

What sources of water around the house pose risks?

- Ponds, water features, paddling pools, home swimming pools
- Water butts, buckets
- Baths, sinks



*Summer Water Safety*

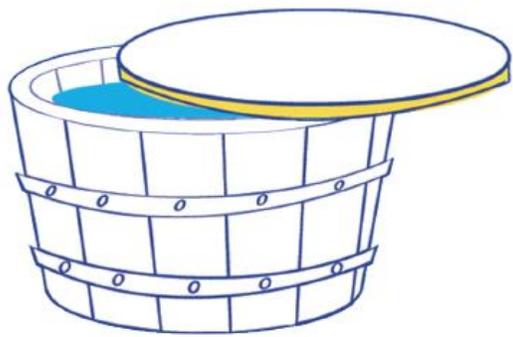
# Safety Around the Home



- Constant supervision is the only way to guarantee children's safety
- Supervise bath time (consider having a shower instead)
- Restrict access to ponds, water features and home pools – consider fencing and other robust options
- Empty paddling pools and buckets as soon as they are not in use
- Think about safety at other houses, such as grandparents and family friends

*Summer Water Safety*





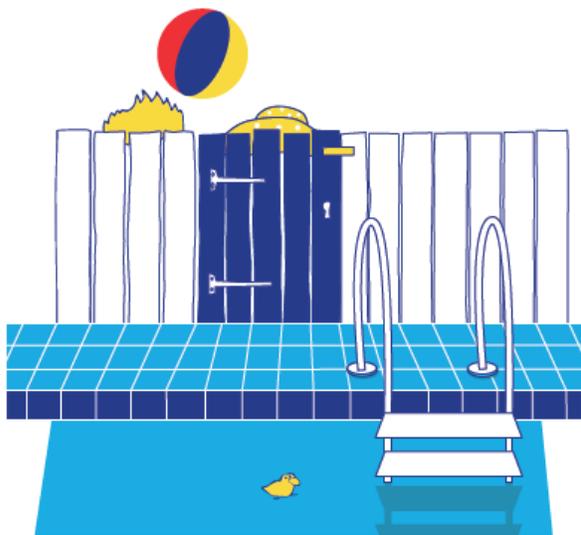
Always cover hot tubs and water tanks.



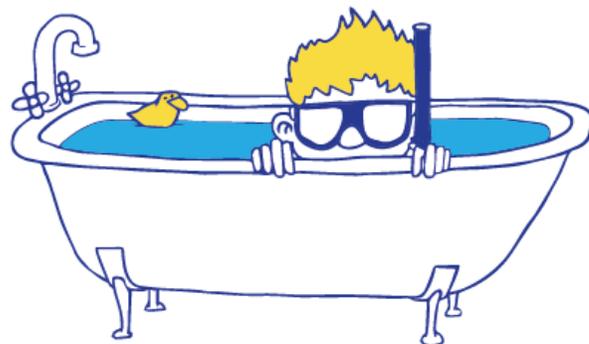
Always empty your paddling pool.



Always keep the bathroom door shut.



Always use self-closing gates, fences and locks around ponds and pools.



Always supervise bathtime.



Always pull out the plug.

Always supervise children near water!

Two links of the drowning chain broken  
Access and Supervision



# Enjoy water safely at HOME

- Around **700 people drown in the UK and Ireland every year**, and **many more suffer injury, some life-changing, through non-fatal experiences.**
- **More people die from drowning in the UK and Ireland than from domestic fires or cycling accidents.**
- **Drownings around the home are easily preventable**

# Swimming Pool Safety



Additional hazards at holiday, hotel, spa, and resort pools:

- No Lifeguards or Lifeguards trained to lower standards
- Slower response from the emergency services
- More unsupervised/unregulated pool activities and equipment
- Unrestricted access to the pool (for children and strangers)
- Unregulated behaviour (from other guests)
- Access to alcohol
- Weather risks including sun burn
- Poor water quality
- More irregular freeform designs



*Summer Water Safety*

# Water safety around holiday swimming pools

## Top water safety when around residential pools

- **You are your family's lifeguard** - Children and weak swimmers should always be closely supervised by an adult and weak swimmers should stay within the pool's recommended safety depths even if they are wearing arms bands.
- If the pool has a **lifeguard, they are not babysitters or childminders. You are responsible for your child.**
- **Take time to check** the depth, water flow and layout of pools
- **Control access** to the pool
- **Never enter the water after drinking alcohol**
- Know what to do in an emergency – Know how to perform CPR and learn some basic lifesaving skills (RLSS Save a life course)



# Inland Water Sites

**Over half of drownings occur at inland water sites** which include rivers, lakes, quarries, reservoirs and canals.

That's over **200 drownings** every year!

Many of these drowning occur because people **assume that swimming or jumping into open water is similar to using a swimming pool. NO IT'S NOT!**

Open water can be used safely, but there are a lot more things to consider when going into open water compared to a swimming pool

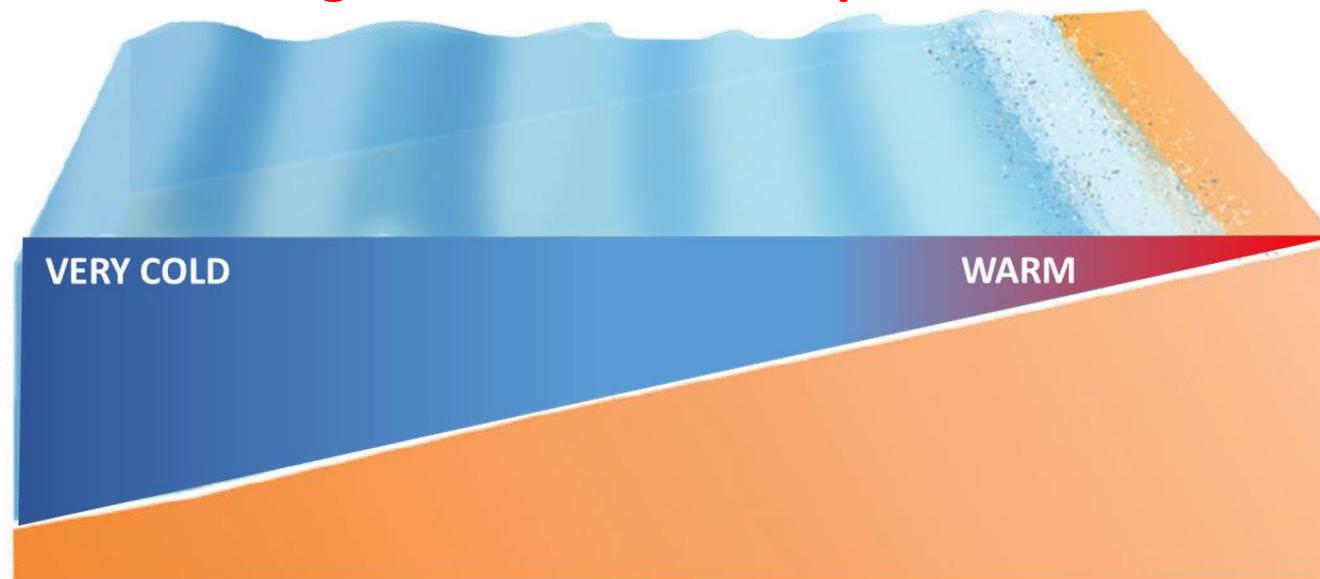


# Open Water

Even during the summer the open water sites stay very cold, particularly the deeper water just a few metres from the shore.

If you want to swim, try to enter from somewhere shallow, and swim parallel with the shore so you can stand up if you start to feel tired or if you inhale water.

If you're going into deeper water, or jumping in, it's a good idea to go with an organised group with rescue cover, get used to the temperature first, and wear a wetsuit.



# Canal

Hazards:  
4 to find!



Reveal All

Reset

Menu

Exit

# Canal

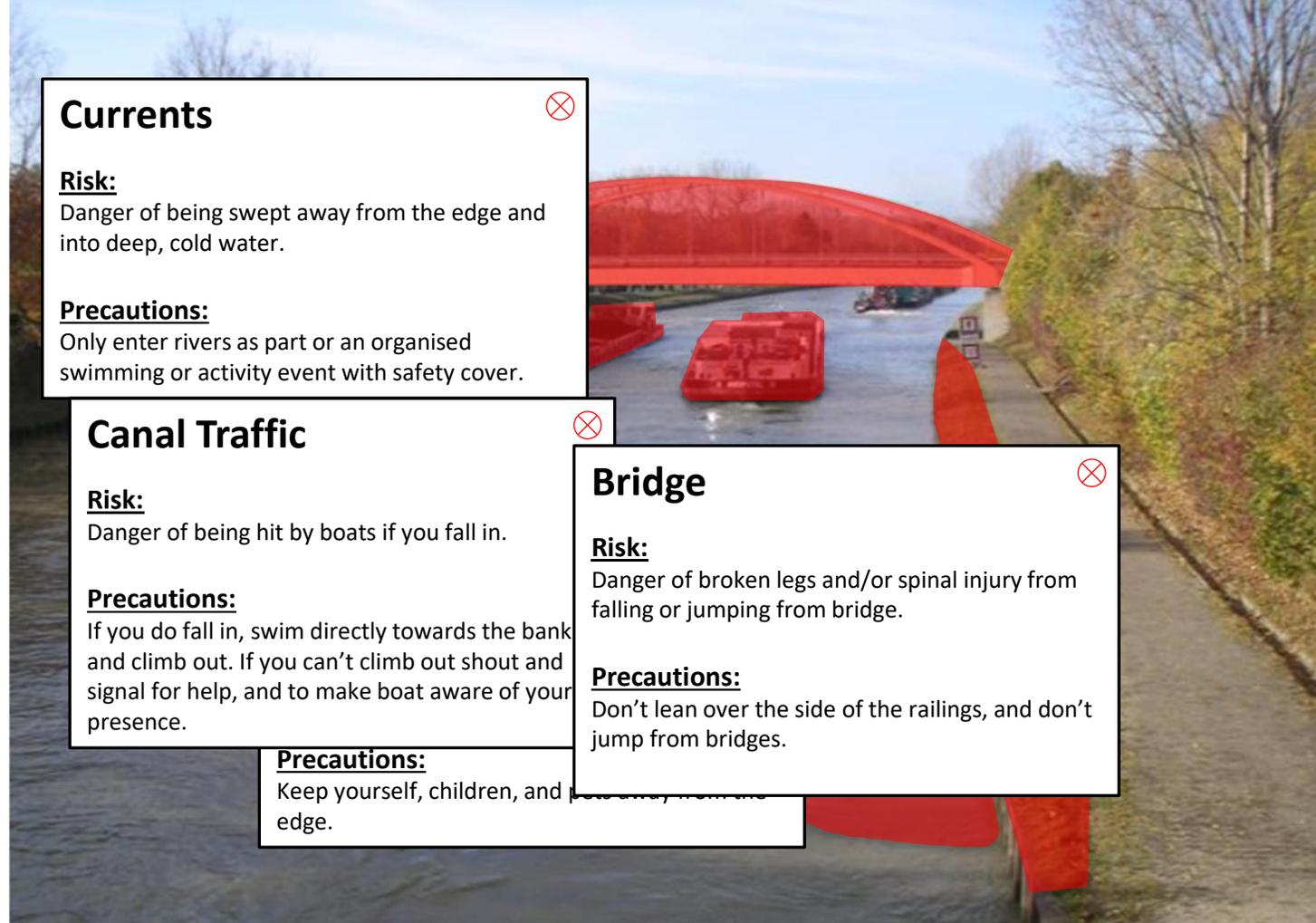
Hazards:  
4 to find!

Canal  
Traffic

Currents

Bridge

Bank



Reveal All

Reset

Menu

Exit

# Lake

Hazards:  
4 to find!



Reveal All

Reset

Menu

Exit

# Lake

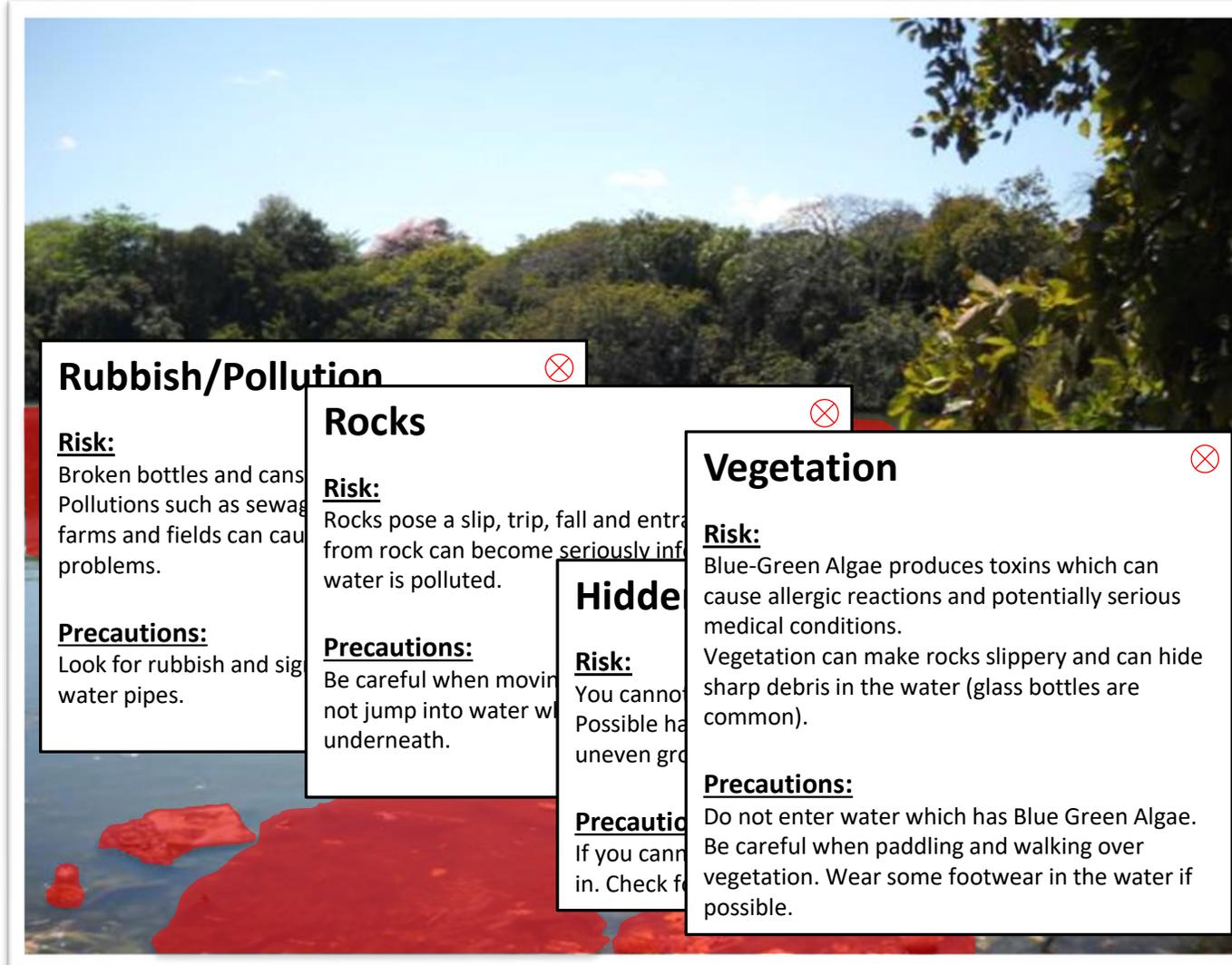
Hazards:  
4 to find!

Rocks

Vegetation

Rubbish/  
Pollution

Hidden  
Features



Reveal All

Reset

Menu

Exit

# Quarry

Hazards:  
6 to find!



Reveal All

Reset

Menu

Exit

# Quarry

Hazards:  
6 to find!

Rocks

Unstable  
bank

Underwater  
current

Hidden  
features

Shear face

Trees on  
bank

**Trees on Bank** 

**Risk:**  
The tree roots may destabilise the bank, making it more likely to collapse if you are on the edge.

**Precautions:**  
Keep yourself, children, and pets away from the edge.

**Deep & Cold Water** 

**Risk:**  
Most quarries contain very deep water which does not warm up in summer due to its depth. The effects of submersion in cold water can be fatal.

**Precautions:**  
Only swim in quarries that have been decommissioned and adapted for swimming, and include the provision of safety equipment. Be aware of the affect of cold water on your body and control your breathing.

**Hidden Features** 

**Risk:**  
You cannot see what is below the water in a quarry. Possible hazards include mining/industrial waste products (including chemicals and machinery), dumped rubbish, pollution, highly variable depths, and sharp rocks.

**Precautions:**  
Do not jump into quarries.

**Vertical Bank** 

**Risk:**  
Vertical walls make getting out difficult, especially in an emergency.

**Precautions:**  
Keep yourself, children, and pets away from the edge, and do not jump into quarries.

Reveal All

Reset

Menu

Exit

# Reservoir

Hazards:  
3 to find!



Reveal All

Reset

Menu

Exit

# Reservoir

Hazards:  
3 to find!

Hidden  
objects

Cold water

Shear Wall

**Deep & Cold Water** 

**Risk:**  
Most reservoirs contain very deep water which does not warm up in summer due to its depth. The affects of submersion in cold water can be fatal.

**Precautions:**

**Hidden Objects** 

**Risk:**  
As reservoirs are often formed in flooded natural valleys, they often have a very variable waterbed (depth and composition), and also often contain debris.

**Precautions:**  
If access to the water is permitted, be cautious when entering the water , and stay within permitted areas.

**Walls, Banks, & Beaches** 

**Risk:**  
Reservoirs tend to be bordered by a mixture of high banks and sloped 'beach' areas. Beach areas are easier to get in and out of the water, but be aware that if you move away from where you enter the water you may also be moving away from the only way out.

**Precautions:**  
If access to the water is permitted, make sure where you enter the water is safe, and that you also have an exit route planned. Remember that the emergency services cannot always reach isolated water sites.

Reveal All

Reset

Menu

Exit

# River

Hazards:  
8 to find!



Reveal All

Reset

Menu

Exit

# River

Hazards:  
8 to find!

Hidden  
objects

Cold water

Currents

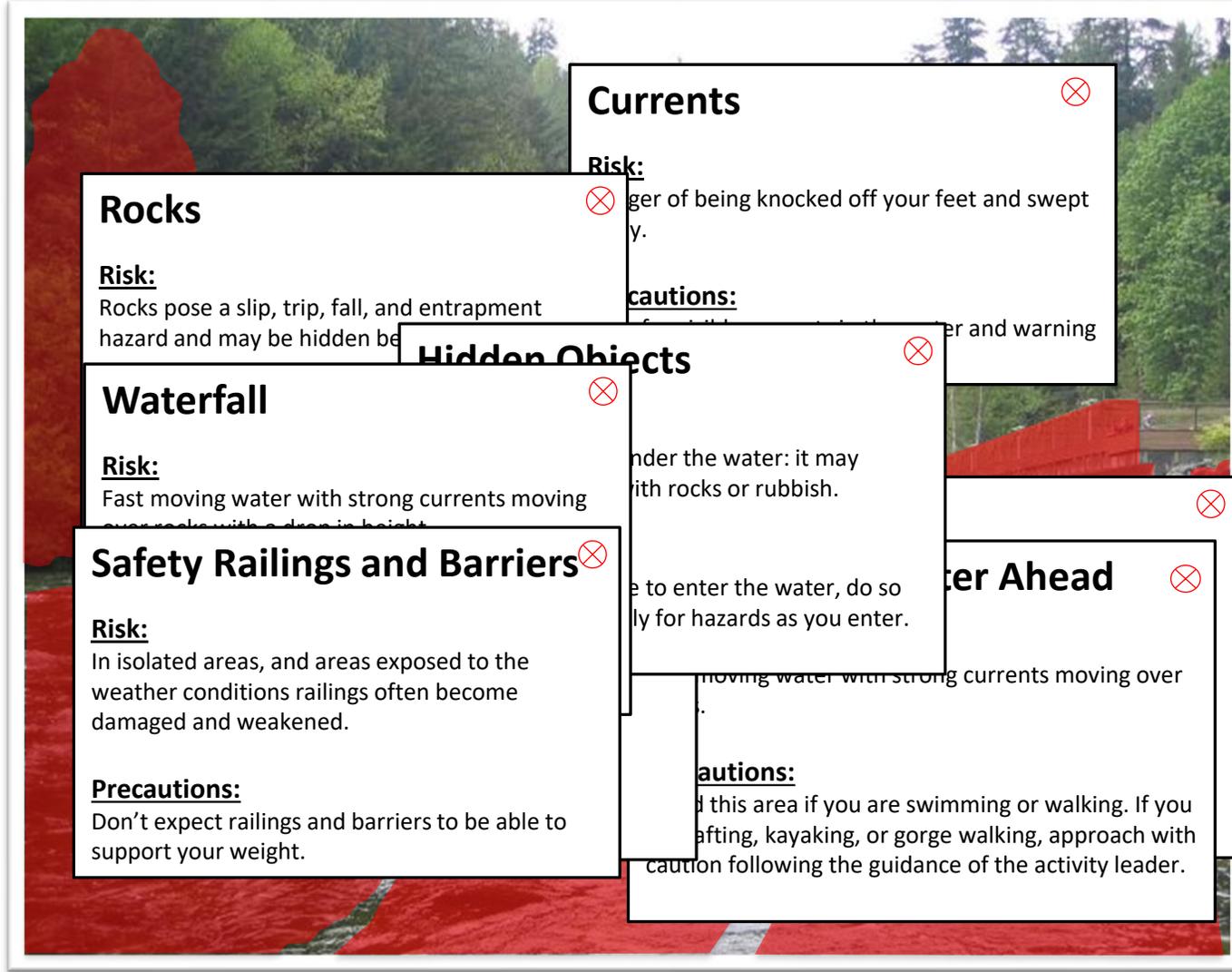
Rocks

White  
water

Waterfall

Railings

Trees on  
bank



Reveal All

Reset

Menu

Exit

# The Beach - Rip Currents



## What is a rip current?

- Rip currents are where the water that has been washed onto the beach by the waves flows back out to sea

## What is the danger of a rip current if you swim into one?

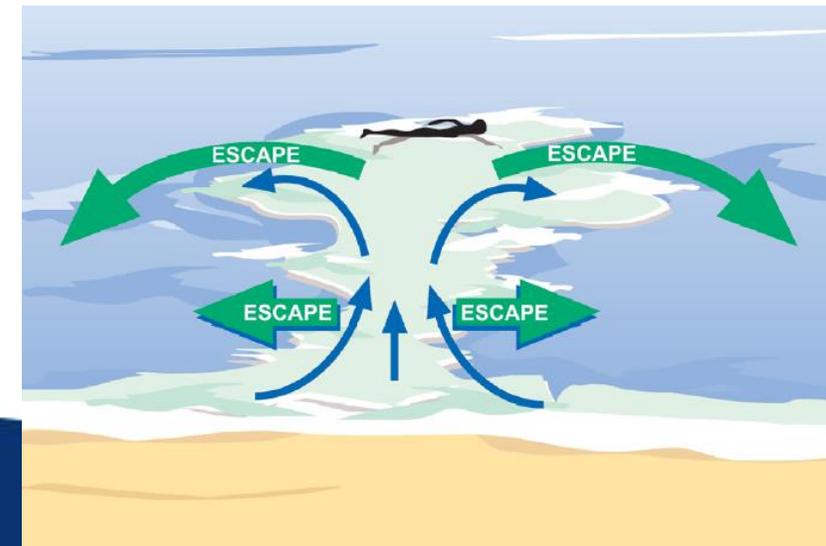
- You could get swept out to sea

## Are rip currents always in the same place?

- No. Some rip currents always appear in the same place, some move around the beach, others appear and disappear depending on the waves and tide

## How can you escape a rip current?

- Swim parallel to the beach until you are out of the rip, then swim towards the beach



# The Beach - Rip Currents continued

To spot rip currents look out for:

- Darker deeper channels of water
- Churned up sea bed
- Debris floating out to sea (seemingly against the waves)
- Change in the shape of energy of the waves
- Rips often flow along cliffs or piers extending into the sea

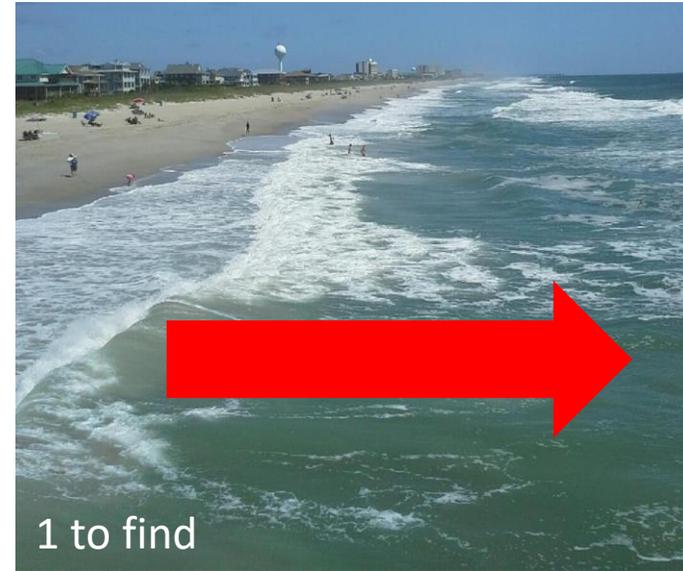


**Can you spot the rips in these increasingly difficult examples?**  
(click or touch where you think the rip current is, some pictures have more than one)



# Can you spot the rips in these increasingly difficult examples?

(click or touch where you think the rip current is)



# Longshore Currents

**Longshore currents run along the beach.**

When you're in the sea these currents can carry you along the beach away from where you got into the water, and may **even carry you to an area where you can't get out or towards a rip current.**

Longshore currents can be difficult to spot, but look for the waves coming in at an angle to the beach, and groynes on the beach which are used to stop the sand washing up the beach with the longshore current.



# Tides

- **2 high and 2 low, high and low times change every day.**
- **The change** in water level can be **many metres** (6m today in Liverpool)
- **Fastest up a shallow shelving beach.**
- **The water can use channels to come in behind you** and cut you off from the beach and **happens very quickly.**
- The tide comes in at approximately the following rate after low tide using Liverpool today as an example:

Time after low tide (hours)	Fractional change in height	Change in height (m)	Total change depth (m)
1	1/12	0.5	0.5
2	2/12	1.0	1.5
<b>3</b>	<b>3/12</b>	<b>1.5</b>	<b>3.0</b>
<b>4</b>	<b>3/12</b>	<b>1.5</b>	<b>4.5</b>
5	2/12	1.0	5.5
6	1/12	0.5	6.0

**Rapid rates of change at the 3<sup>rd</sup> and 4<sup>th</sup> hours = large volume of water movement**



After short pause the tide turns and goes out

Time after high tide (hours)	Fractional change in height	Change in height (m)	Total change depth (m)
1	1/12	0.5	0.5
2	2/12	1.0	1.5
<b>3</b>	<b>3/12</b>	<b>1.5</b>	<b>3.0</b>
<b>4</b>	<b>3/12</b>	<b>1.5</b>	<b>4.5</b>
5	2/12	1.0	5.5
6	1/12	0.5	6.0

Find information about the tide times online or on signs at the beach. Remember they change every day. If in

# Offshore Winds

Offshore winds blow towards the sea.

**The wind can blow people on inflatables out to sea, and surface chop can make it difficult to swim back towards the shore.**

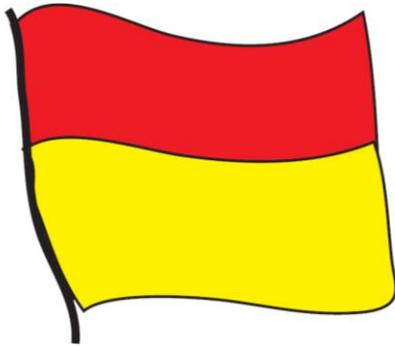
**Surface chop** is when water blows off the tops of waves, blowing droplets into your face, making seeing and breathing difficult.

Orange windsock or flags can indicate the wind direction.



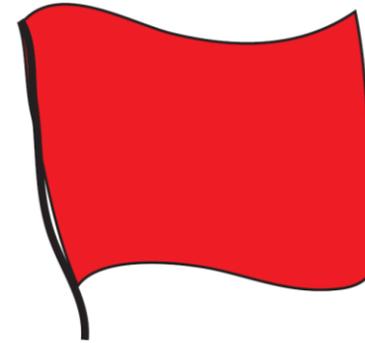
# Beach Flags

## What do the Beach Flags mean?



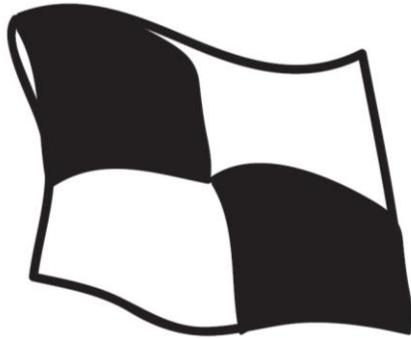
### 1. Red & Yellow

Lifeguarded area  
Safest place to swim



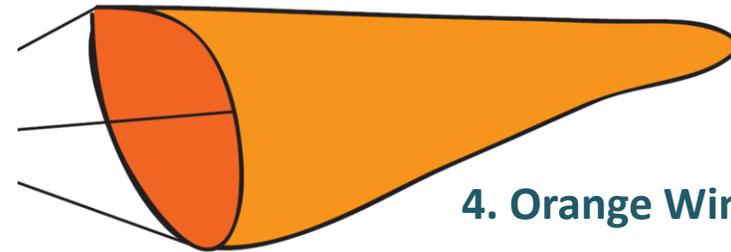
### 2. Red

Danger  
No swimming



### 3. Black & White

Water sports area  
No swimming



### 4. Orange Windsock

Direction and  
strength of the wind



# Summer WATER SAFETY

When Summer hits it can be tempting to look for the nearest place to cool off.  
**Here are our top tips if you plan on going for a paddle:**



**LOOK OUT  
FOR LIFEGUARDS**



**IT'S COLDER  
THAN IT LOOKS**



**DON'T GO  
TOO FAR**



**IT'S STRONGER  
THAN IT LOOKS**



**BRING A FRIEND**

# The drowning chain



1. Lack of education – **not knowing about, ignoring or misjudging danger**
2. Lack of safety advice – **unrestricted access to danger**
3. Lack of supervision – **no adequate supervision**
4. Inability to cope – **not being able to save yourself or be rescued**

# Thank You for listening

- I hope this presentation is useful to you?
- More information from [www.rlss.org.uk](http://www.rlss.org.uk) about water safety and lifesaving clubs in your area.