



Lifeboats

Beach Water Safety Management in Scotland

Timothy Fallowfield – Lifeguard Services Co-Ordinator

Our purpose

The RNLI saves lives at sea.

Our vision

To end preventable loss of life at sea.



Lifeboats

The difference we want to make

2019

- Progress towards a 50% reduction in drowning in the UK and Republic of Ireland
- Declining trend in serious incidents
- Firmly established drowning prevention coalition that advocates effectively for the global cause

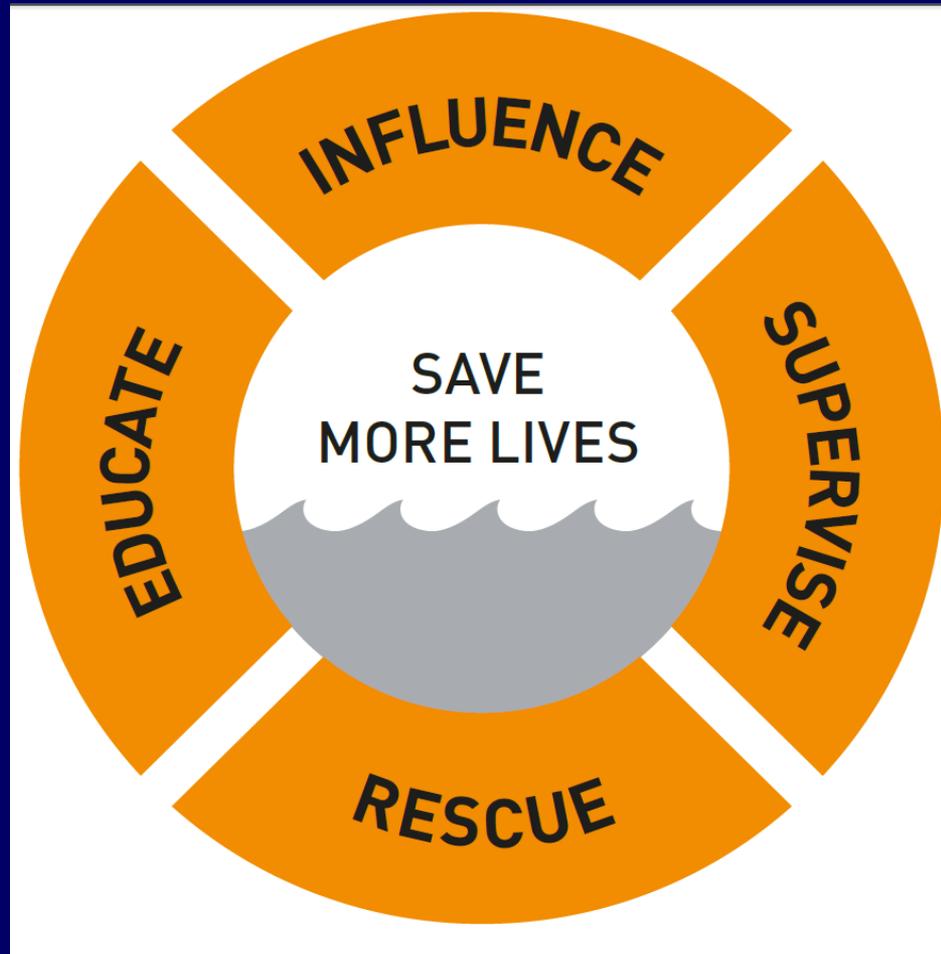
2024

- A 50% reduction in drowning in the UK and Republic of Ireland
- Reduction in serious incidents
- Effective drowning prevention strategies in place in the highest risk areas internationally



Lifeboats

Rise model



Lifeboats

Rescue

- Maintain our core, world-case lifeboat and lifeguard services
- Further develop relationships with other search and rescue operations to help save more lives

Influence

- To save more lives, we need to work more effectively in partnership with other organisations
- We need to identify how we can influence lifesaving through policy makers and regulators

Supervise

- Prevent more tragedies through the expansion of the lifeguard service around the UK
- Help international communities set up their own lifeguard services

Educate

- Our education work can save more lives by promoting safety through behaviour change campaigns, products and messages, and by working more closely with communities



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Lifeguard Services Team

- Coastal regions are dynamic environments where the presence and level of a potential danger varies with numerous factors such as time, weather and human interaction.
- The determination and evaluation of potential risks is made more complicated in coastal regions due to the continually changing nature of the environment.
- Coastal management authorities need to take preventative actions to avoid foreseeable loss of life and injury on any section of coastline likely to be visited by the public.
- The RNLI offer a full suite of beach safety assessment services to local authorities and beach managers.
- There is no such thing as zero risk.



Lifeboats

Lifeguard Services Team – What we offer

5 steps of support

1. **Quick scan** – brief, summary, morphology, energy
2. **Full Beach Safety Assessment** – look / highlight / recommend, not a risk assessment (support)
3. **Signage / PRE** – collaborated guides (ROSPA, RNLI, Maritime and Coastguard Agency)
4. **Service Level Assessment** – costs, logistics
5. **Lifeguard Service** – WAID data, trends, evidence based policies



Lifeboats

Stake holder engagement

Who do we engage with?

- **LA**
- **National Trust**
- **Parish Councils**
- **Private owners**
- Activity Centres
- Concessionaires
- **National Parks**
- Volunteer Groups
- Coastguard
- Lifeguards
- RNLI (internal) – Coastal Safety Officers
- SAR Agencies
- ALM, LOM



Lifeboats

The beach environment



Lifeboats



Achmelvich Bay, Highland

[Click here for Printable page](#)

Nearest Town: Lochinver

MCS Cust ID: 37

Alternative Names:

- Modal Beach Type:** Reflective (low energy)
- Average Inshore Wave Height (m):** n/a
- Mean Spring Tidal Range (m):** 4.2

Beach Type Details | Environmental Setting | Wave Climate | Offshore Wind | Beach Hazard

Beach Type Details:

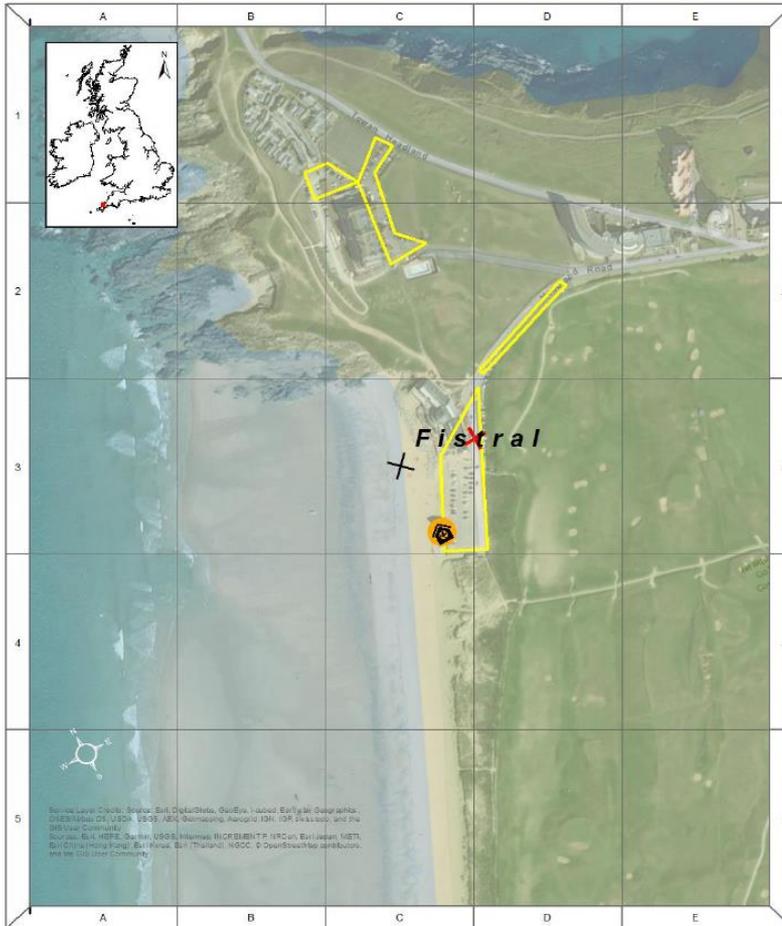
- Beach Type (Modal):** Reflective (low energy)
- Beach Type (Low Energy):** Reflective (low energy)
- Beach Type (High Energy):** Low-tide terrace (high energy)
- Low Water Regime:** LW_intermediate
- High Water Regime:** HW_reflective



Lifeguards

Resources - Plymouth University QOBR2 PDF's

Fistral



Date: 28/03/18 Author: Gemma Stokes

Fistral

Beach Information		Environment	
Unique MCS ID	850.1	Average/max wave height (summer), m	0.9/1.7
Alt beach name		Average wave period (summer), s	7.8
Nearest town	Newquay	Average wave direction (summer), deg. from N	270
County	Cornwall	Tide range (vertical), m	6.4
Latitude	50.41862	Submerged at high tide	yes
Longitude	-5.09799	Enclosed beach	yes
Beach length / Beach width, m	1200/300	Estuary inlet/river	no/no
Beach faces angle, deg. from N	300	Geology HW/LW/ST	yes/yes/no
RNLI/other lifeguards	yes/no	Rock HW/IT	no/no
Designated bathing water	yes	Boulder HW/IT	no/no
Car park area within 1km, m ²	47591	Shingle HW/IT	no/no
Distance to nearest B-road, m	2925	Sand HW/IT	yes/yes
Risk/ranking 1 (high) – 640 (low)		Mud HW/IT	no/no
Predicted Life Risk*	2.11 (0.61-7.32) – rank 2	Engineered	yes
Predicted Exposure**	428 (229-799) – rank 2	Groynes	0
Predicted Hazard level***	0.0049 (0.0012-0.0198) – rank 32	Breakwater	0
Hazards 1 (low) – 4 (high)		Pier	0
UKBSAM Hazard rating	4	Slipway	0
Rip/current type HW	2, Topographic rips (natural/man-made)	Average morphology	Low-tide bar/rip
Rip/current type LW	3-4, Beach rips	Bar type	Multiple bars
Wave breaking HW/LW	2/3	Seawall	0
Wave energy HW/LW	2-3/3	Harbour or marina	0
Beach gradient HW/LW	2/4	Seabed object	0
Swash HW/LW	2/2		
Tidal cut-off	3-4		
Littoral currents HW/LW	2-3/3		

* fatalities/lives saved or equivalent incidents per summer season
 ** In-water summer head count (momentary)
 *** Risk divided by Exposure
 HW – high water, LW – low water
 IT – intertidal, ST – subtidal



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Conflicting Activities Matrix	
	General beach activities Cycling Beach / pier fishing Rock walking / rock fishing Managed vehicle use and parking Large kite flying Climbing / bouldering Horse riding Wind powered vehicles Sand digging / tunnelling 4wd vehicles, quad / dirt bikes Paragliding / hand gliding Paddling / wading Diving Swimming Inflatable users Skim boarding Body surfing Body boarding Wave dodging Cliff, rock or pier jumping Surfing Stand up paddle boarding Windsurfing Kite surfing Rowing Sailing Snorkelling / spear fishing Scuba diving Personal Water Craft (PWC)
Personal Water Craft (PWC)	
Scuba diving	
Snorkelling / spear fishing	
Sailing	
Rowing	
Kite surfing	
Windsurfing	
Stand up Paddle boarding	
Surfing	
Cliff, rock or pier jumping	
Wave dodging	
Body boarding	
Body surfing	
Skim boarding	
Inflatable users	
Swimming	
Diving	
Paddling / wading	
Paragliding / hand gliding	
4wd vehicles, quad / dirt bikes	
Sand digging / tunnelling	
Wind powered vehicles	
Horse riding	
Climbing / bouldering	
Large kite flying	
Managed vehicle use and parking	
Rock walking / rock fishing	
Beach / pier fishing	
Cycling	
General beach activities	

Conflicting Activities Matrix

0 = No conflict of activities.
 1 = Low Risk. Remote chance of activity conflict arising resulting in mayor injury OR occasional chance of activity conflict arising resulting in minor injury. No additional management intervention required.
 2 = Medium risk. Occasional chance of activity conflict arising resulting in critical injury OR probable chance of activity conflict arising resulting in mayor injury. Additional temporary / seasonal management intervention required.
 3 = High risk. Occasional chance of activity conflict arising resulting in a fatality OR probable chance of activity conflict arising resulting in a critical injury. Additional permanent management intervention required.

Template last updated 10/08/2016



Lifeboats

Identifying Hazards In The Beach Environment



Lifeboats

Identifying Hazards in the Beach Environment

Surrounding environments (cliffs, dunes, walkways)

Beach profiles (sudden drop, submerged objects)

Man-made structures (groynes, power cables)

Water quality (pollution, water quality)

Surf conditions (wave type, rips)

Weather (strong winds, fog, UV)

Animals (dogs, marine)

General hazards (litter, fire)

Beach and dune areas (kites, horse riding)

Surf zones (swimming, surfing)

Beyond Surf Zones



Lifeboats

The Drowning Chain

Why do people drown? –

Nobody chooses to drown



What is the Drowning Chain?



Lifeboats

Breaking the drowning chain

- Underestimating or being unaware of risks



- Education and information

- Unrestricted access to hazards



- Denial of access and/or provision of warnings

- Absence of adequate supervision



- Supervision

- Inability to save yourself, or be rescued



- Acquisition of survival skills



Lifeboats

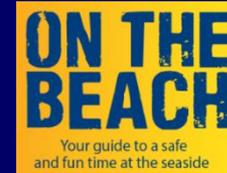
Ignorance, disregard or misjudgement of danger
remove/reduce by: **Education and Information**

How can this be achieved?

Signage and PRE



'In the Surf' posters, 'On The Beach Guide'



Community Lifesaving Plans

'Respect the Water' national campaigns



Beach to City, Meet the LG's



Uninformed or unrestricted access to a water hazard
remove/reduce by: **Denial of Access**

How can this be achieved?

All Flags



Zoning



Wind breaks



Signs (temp/perm)



F2F



Lifeboats

Lack of supervision:

Supervision (direct/indirect)

How can this be achieved?

LG's, wardens, rangers, trained Observers, parents/carers, cameras

Inability of the victim to cope (or to be rescued) once in difficulty:

Acquisition of survival skills

How can this be achieved?

HTS, swim safe, Surf Live Saving clubs



Lifeboats

Breaking the drowning chain

- Underestimating or being unaware of risks
- Unrestricted access to hazards
- Absence of adequate supervision
- Inability to save yourself, or be rescued



Support,
infrastructure,
logistics, cost,
resources



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