



Lifeboats



Flood Rescue Service Implementation Guide

NOVEMBER 2017

DEVELOPED FOR LOW-RESOURCE AREAS

About this guide

The primary aim of the *Flood Rescue Service Implementation Guide* is to give organisations the background and knowledge to assist them with developing a flood rescue service.

This resource has been designed as a guidance document and can be adapted to suit the local environment.

This guide will be reviewed and if necessary, updated every 3 years.

Please send any feedback or comments to international@rnli.org.uk.

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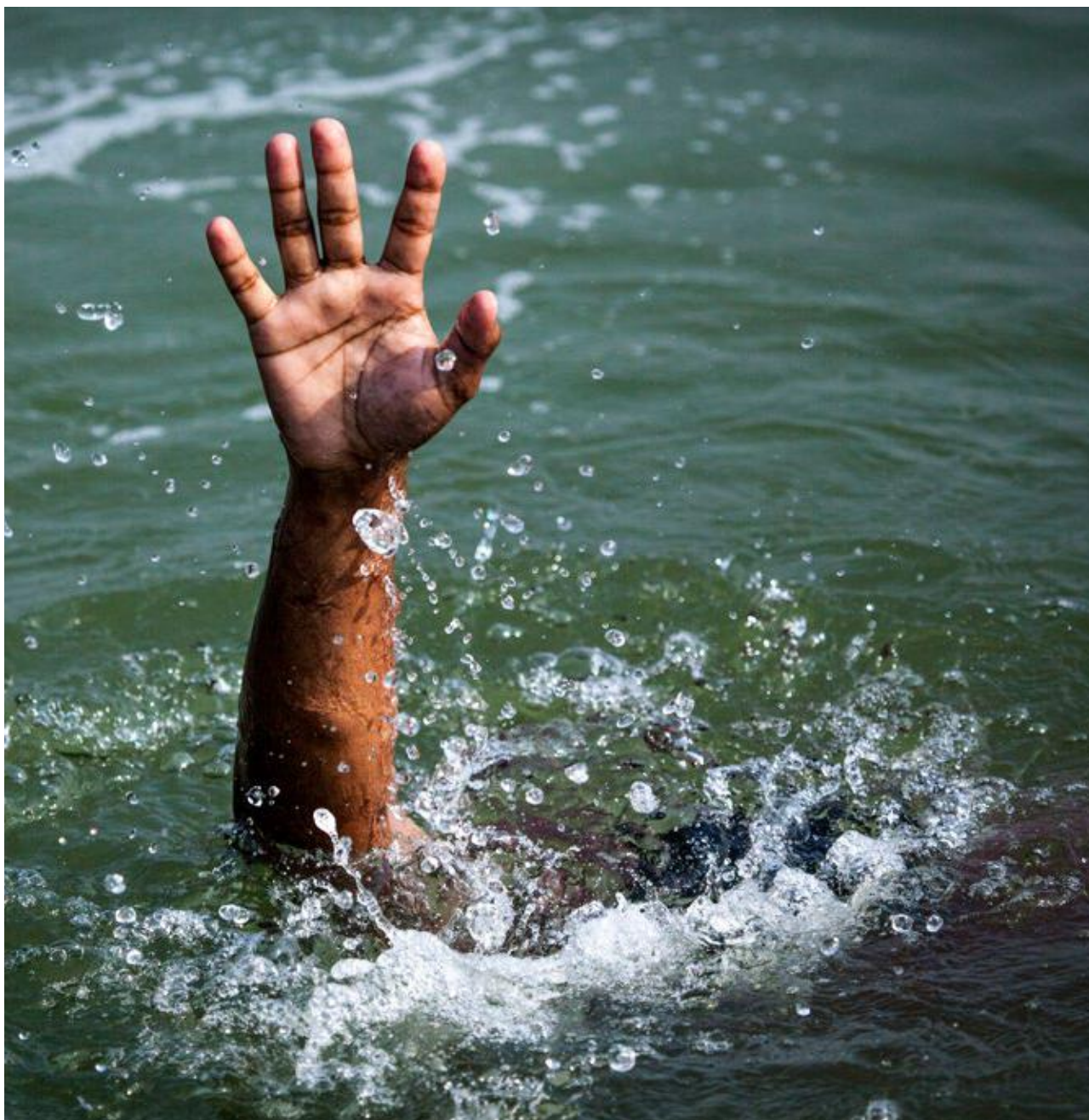
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The content of this book is for general guidance only. It represents best practice as at the date of publication and should not be considered as legal advice. Those using this manual should seek professional advice as and when necessary. The RNLI does not accept responsibility for any errors in this document.

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Learning outcomes

- 1.1 Understand the global drowning issues.
- 1.2 Understand the role of the flood rescue service.
- 1.3 Understand the role of the RNLI and its International work.
- 1.4 Understand the role of international governing bodies and standards relevant to flood rescue.
- 1.5 Understand the process of service implementation and the disaster management cycle.

Unit 1: Introduction

1.1 The international drowning problem

The World Health Organization (WHO) estimated that drowning is responsible for the loss of an around 372,000 lives each year (2014). This figure is likely to be a significant underestimation as it excludes drowning deaths due to flooding and transportation.

The WHO estimation also relies on data collected from poor reporting systems, which often under-represent or misrepresent drowning deaths.

Despite the scale of the problem, drowning is barely recognised as a public health problem – a silent epidemic that is significantly under-resourced.

The WHO created the following information in 2014 on global drowning:

KEY FACTS

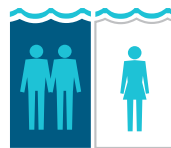
372 000
people die
from drowning
EVERY YEAR



OVER HALF
of all drowning
deaths are among
those aged
UNDER 25
YEARS



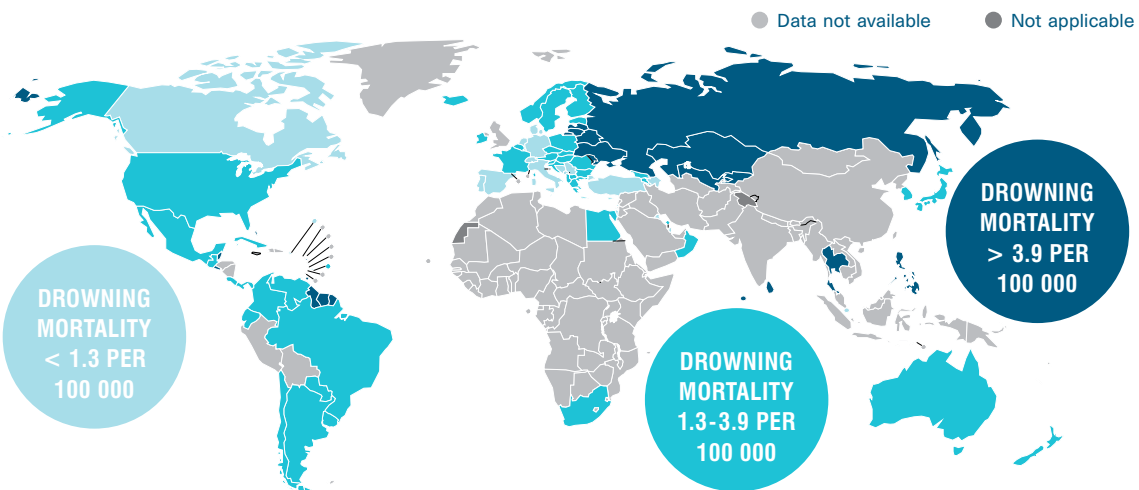
MALES
ARE TWICE
AS LIKELY
to drown
as females



Drowning is
one of the
10 LEADING
CAUSES OF
DEATH
for people aged
1-24 years



DROWNING RATES



A LEADING KILLER OF CHILDREN

Number of deaths for children under 15 years

TUBERCULOSIS	69 648
MEASLES	125 813
DROWNING	140 219
HIV	199 071
MENINGITIS	217 580



World Health Organization

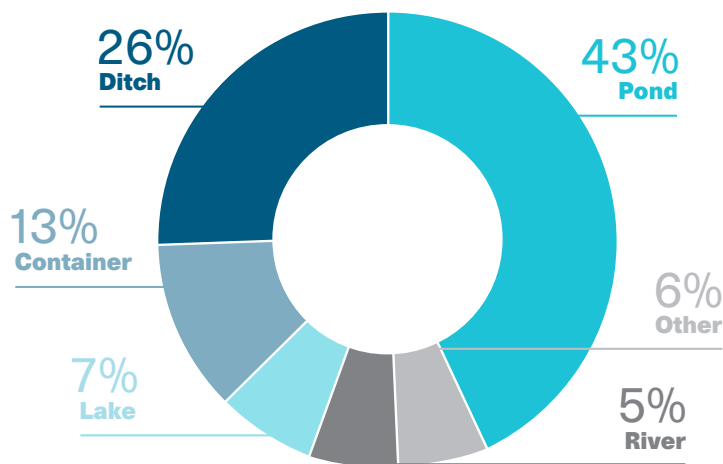
© World Health Organization 2014

Despite the scale of the world's drowning problem, it is barely recognised – a silent epidemic.

RISK FACTORS

LIVING AROUND WATER

Wherever there is water, there is the threat of drowning



Place of drowning of Bangladeshi children under 5 years

YOUNG CHILDREN

The highest drowning rates are among children aged 1-4 years



FLOOD DISASTERS

Extreme rain fall, storm surges, tsunamis or cyclones



TRANSPORT ON WATER

Especially on overcrowded or poorly maintained vessels



PREVENTIVE ACTIONS

Install BARRIERS

controlling access to water



Provide SAFE PLACES

(for example, a crèche) away from water for pre-school children, with capable child care



TEACH school-age children basic SWIMMING, WATER SAFETY AND SAFE RESCUE SKILLS



TRAIN bystanders in SAFE RESCUE AND RESUSCITATION



Set and enforce safe BOATING, SHIPPING AND FERRY REGULATIONS



IMPROVE FLOOD RISK MANAGEMENT locally and nationally



Unit 1: Introduction

Impact of flooding

The immediate impacts of flooding include loss of human life, damage to property, destruction of crops, loss of livestock, and deterioration of health conditions owing to water-borne diseases. As communication links and infrastructure such as power plants, roads and bridges are damaged and disrupted, some economic activities may come to a standstill, people are forced to leave their homes and normal life is disrupted.

Similarly, disruption to industry can lead to loss of livelihoods. Damage to infrastructure also causes long-term impacts, such as disruptions to supplies

of clean water, wastewater treatment, electricity, transport, communication, education and health care. Loss of livelihoods, reduction in purchasing power and loss of land value in the floodplains can leave communities economically vulnerable.

Floods can also traumatise victims and their families for long periods of time. The loss of loved ones has significant impact, especially on children. Displacement from homes, loss of property and disruption to business and social affairs can cause continuing stress. For some people the psychological impacts can be long lasting.



Impact of floods on people's daily lives

Case study of the impact of regular flooding in Bangladesh

Every year the Bangladesh monsoon season brings torrential rain and floods.

Due to the very nature of the climate and topography of Bangladesh, large areas of the country are regularly affected by flooding, which impacts upon the lives of hundreds of thousands of people every year.

What was once a welcome natural cycle for farmers has become a dreaded event since climate change has intensified annual rainfall.

In 2016, the floods affected more than 4 million people, destroying homes, fields and livelihoods. Families were in urgent need of food, drinking water, latrines, shelter and health support.

With millions of Bangladeshi people hit by devastating monsoon floods in 2016, the government and aid agencies are now helping them with emergency food and shelter, while working to improve protection against future disasters.

By June 2019, the government will distribute half a million household food silos to people in areas prone to storms and flooding, to keep their food stocks safe from water and other threats.

Bangladesh's Humanitarian Coordination Task Team – made up of government and UN experts, aid agencies and donors – estimates that some 3.7 million people in 19 districts have been affected by the recent floods that began in mid-July 2016.

More than 250,000 houses were reported damaged, including nearly 17,000 houses that have been washed away completely and over 65,000 partially lost to riverbank erosion.

Around 110 deaths were reported due to drowning, most of them minors, according to government health officials.

1.2 The role of a flood rescue service

Flood rescue is the provision of aid and assistance to people who are in distress or imminent danger in a flooded environment.

The general field of search and rescue includes many specialty sub-fields, typically determined by the type of terrain the search is conducted over. Flood rescue is one of the speciality fields.

Flood rescue services exist to keep people safe and provide rescues when they find themselves in a flood situation.

With the increase in worldwide flooding events, many countries that are regularly prone to flooding are realising the benefits of having a flood rescue service in terms of both keeping communities safe and boosting the countries emergency response capabilities.

The management of a flood rescue service requires an understanding of the environment you will be operating in, weather forecasting information and skills in a range of other disciplines. This includes risk assessment, recruitment, training and logistical management.

This guide aims to provide an overview of the steps required to implement a flood rescue service and includes some example documentation that can be adapted to assist your organisation.



Flood rescue in affected areas

Unit 1: Introduction

1.3 The RNLI

The Royal National Lifeboat Institution (RNLI) is a UK-based charity with the aim of reducing loss of life due to drowning. It was founded in 1824, and now has a 24-hour on call lifeboat service across over 230 coastal locations in the UK, lifeguard services across 240 beaches, trained flood rescue teams and campaigns to educate the public about drowning prevention.

Since 2012, the RNLI has also been sharing their lifesaving expertise with institutions, organisations and individuals internationally.

The RNLI's International department have developed a portfolio of lifesaving interventions, specifically designed for new and developing lifesaving organisations. Flood Rescue Service Implementation is one of these interventions.

From the first rowing lifeboats...



The RNLI saves lives by providing:

- a fleet of all-weather lifeboats, which are available at all times
- inshore craft, which are subject to weather limitations
- a lifeguard service on a seasonal basis

- safety education, swimming programmes and accident prevention
- flood rescue.

All of these are carried out to a defined standard of performance, commensurate with the resources available, using trained and competent people who, wherever possible, are volunteers.

Maritime search and rescue (SAR)



Lifeguards



Flood rescue



Community safety



Strategic performance standards

The RNLI aims to:

- achieve an average launch time of 10 minutes from notification to the RNLI
- reach all notified casualties where a risk to life exists, in all weathers, out to a maximum of 100 nautical miles
- reach 90% of all casualties within 10 nautical miles of the coast within 30 minutes of launch in all weathers, where there is an identified need
- reach any beach casualty up to 300m from shore, within the flags, on RNLI lifeguard-patrolled beaches, within 3½ minutes

- deliver clear, straightforward safety advice and products that positively influence behaviour, measured against agreed benchmarks
- maintain the capability to deploy 7 Type B flood rescue teams
 - the first two teams to reach any rendezvous point within the UK, Republic of Ireland and Isle of Man† within 6 hours of request
 - an international team of 6 boats and 25 personnel to any UK port of departure within 24 hours.

† It is not yet possible to meet this timescale in the Channel Islands.

Unit 1: Introduction

RNLI rescue map



RNLI international work

We are committed to reducing global drowning by sharing over 190 years of lifesaving experience. We support lifesaving organisations around the world to empower their own communities – where drowning is a major risk – with the knowledge, skills and solutions to be more resilient.

We work at three levels:

Safer world

Through advocacy, we want to put drowning on the global development agenda. We want more organisations to include drowning prevention in their work and see more investment in reducing the global drowning burden.

Safer regions

In response to a World Health Organization recommendation, we are working with government and non-government organisations to develop coordinated national drowning prevention plans.

Safer communities

We design and test solutions appropriate to the skills and resources available in low-resource environments. Once we have evidence that they reduce drowning, we look for ways to scale up and replicate them.

Key international interventions

- training future leaders from other lifesaving organisations around the world
- survival swimming lessons for children
- classroom-based water safety lessons
- lifeguarding services
- flood and search and rescue training
- designing low-cost rescue equipment
- researching/modelling of drowning risks
- resources and training manuals
- supporting the development of national and regional drowning prevention strategies and plans
- influencing other organisations to address drowning prevention in their policy and practice.



Unit 1: Introduction

History of the RNLI flood rescue service

RNLI lifeboats have been involved in inland rescues as far back as the 1930s. In January 1937, after 12 days of gales and rain, the River Dee flooded, causing widespread damage and cutting off many buildings. Before the official formation of the flood rescue team, lifeboat crew members were involved in major international flood-relief efforts in Bangladesh (1970).

The flood rescue team was born out of the RNLI's involvement with the Mozambique floods of February 2000. A team of eight, with six D class inflatable lifeboats, was deployed for search and rescue purposes and ended up providing humanitarian aid to some 10,000 people. In 2005, six boats and a team of 20 were deployed to Guyana, when heavy rain and flooding affected 250,000 people.

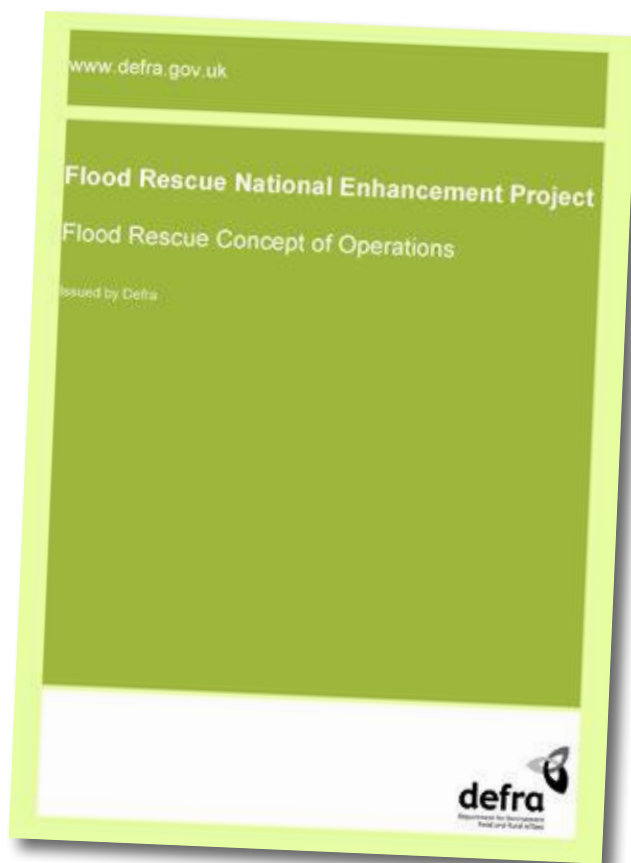
In the UK, the flood rescue team formed a core part of the response to the 2007 floods in South Yorkshire, Worcestershire and Gloucestershire; the Morpeth floods in 2008; Cockermouth in 2009; St Austell, Cornwall, in 2010, and the Aberystwyth and Borth floods in 2012.



1.4 International standards and governing bodies

In the UK, the Department for Environment and Food and Rural Affairs (Defra) sets the standards and guidance for any organisation or agency that may respond to a flood emergency.

Defra's Flood Rescue Concept of Operations



This concept of operations also provides guidance of the training competencies up to and including advisers plus a checklist for each team type.

Defra water rescue training modules

Defra has recommended the following guidance relating to the training standards that any organisation responding to flooding events should aim to provide.

They have also carried out team typing in order for rescue resources to be classified or 'typed' according to their capability. This is usually measured in terms of the skills, knowledge and experience of the teams and individuals plus the provision of key equipment such as boats and rescue gear.

Training modules:

Module 1: Water awareness

General water safety awareness training and basic land-based rescue techniques.

Module 2: Water first responder

To work safely near and in water using land-based and wading techniques.

Module 3: Water rescue technician

Specialist rescue operation.

Module 4: Water rescue boat operator

Rescue boat operation.

Module 5: Water rescue incident management

Water-related incident command.

Module 6: Water rescue incident tactical adviser

Providing tactical advice at a flood or water-related incident.

Unit 1: Introduction

There are other international organisations that provide standards for emergency response teams:



The United Nations Office for the Coordination of Humanitarian Affairs (UN OCHA) and the International Search and Rescue Advisory Group (INSARAG) provides standards and capabilities that emergency response teams should comply with.

They provide some key functions an urban search and rescue (USAR) team should provide:

- Reconnaissance and survey of the affected area.
- Identify hazards and undertake actions to reduce the level of risk.
- Surface search and rescue.
- Initiating medical care and extraction of victims.
- Assisting international teams to integrate into local emergency management arrangements for light urban search and rescue teams.



INSARAG suggests the following possible USAR team structure for deployment:

- Team leader x 1
Operations and planning x 2.
- Logistics and Equipment x 3.
- Rescue team x 10.
- Medical and safety x 2.



European Civil Protection

- The European Union under its Civil Protection Mechanism also set standards as to what a flood response team should be able to achieve. These standards specifically apply to response teams using boats:

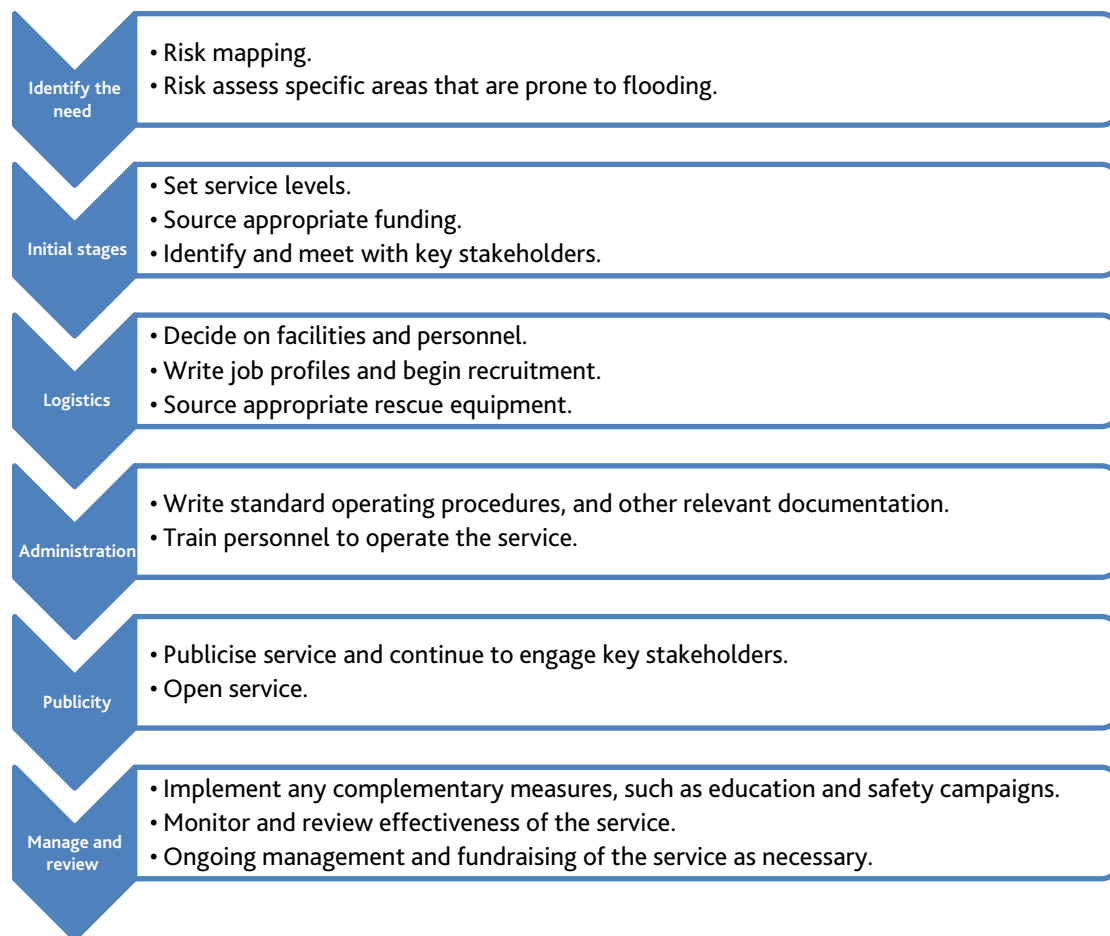
They suggest that a flood rescue team's key capabilities should be:

- people trained for swift water rescue (no diving only surface rescue)
- water search and rescue and assist people trapped in a flooding situation by using boats
- ability to search for people in urban and rural areas
- ability to rescue people out of a flooded area including medical care at first responder level
- ability to work together with aerial search (helicopters and planes)
- provide transportation of doctors and medicines
- sufficient food and water
- boats designed
 - to be able to drive upstream against at least 10 knots of flow
 - for shallow water conditions, for use in depths of water of less than 0.5
 - for use in windy conditions
 - for use during day and night
 - to be equipped according to international safety standards including lifejackets for the passengers.

1.5 The process of service implementation

The table below details the main steps in implementing a flood rescue service. Each organisation will have slightly different requirements, and some of these steps may not apply to yours.

This guide is designed for you to adapt to your own needs and circumstances. Each stage will be discussed in more detail throughout the guide.



The disaster management cycle

The disaster management cycle shows the steps that should be implemented to deal with an emergency situation.

A shift towards a more anticipatory and preventative approach to flood response is needed. Most floods can be predicted and, while they cannot always be prevented, the suffering they cause can often be greatly reduced. Flood response should be focused on responding before the incident has occurred.



Unit 2: Researching the issue of drowning



Learning outcomes

- 2.1 Understand the importance of risk mapping and how it helps to decide the location of the service.
- 2.2 Understand how to use incident data to inform the decision on a flood rescue service level.

Unit 2: Researching the issue of drowning

2.1 Risk mapping

The first step in implementing a flood rescue service is ensuring that the correct areas are being targeted. This is done through a process of risk mapping and risk assessment.

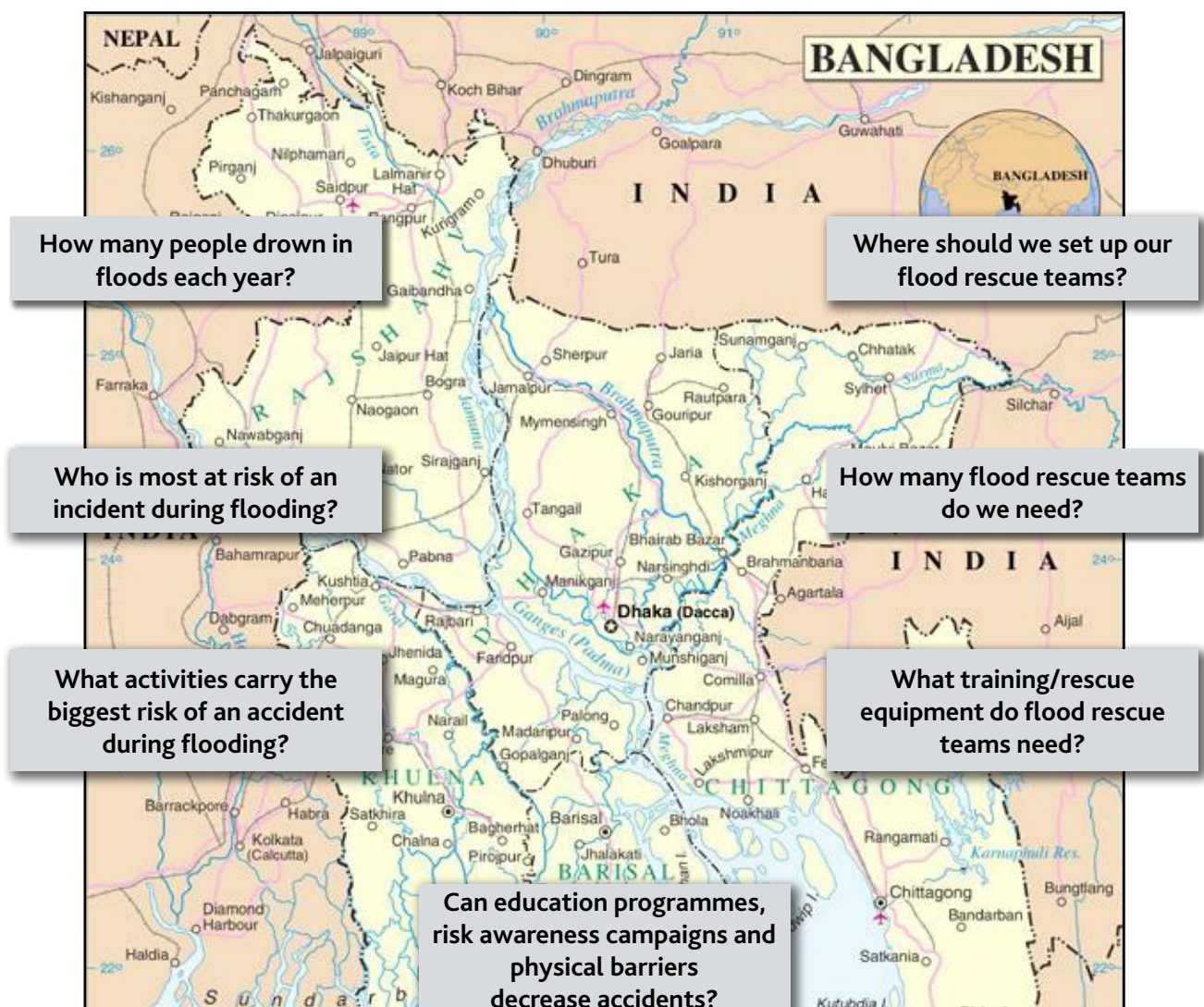
Risk mapping is a tool used to visualise the risks faced by a community. It is a drawing or model of the community and highlights where flooding occurs, who it happens to and why it takes place.

It helps identify what intervention needs to be put in place, who needs to be trained and what they should be trained in.

Risk mapping works best when working closely with members of the communities that are prone to flooding.

They will have a good knowledge of local water bodies and their associated hazards, and will be keen to help find a possible solution:

1. Work with the community to draw a map of the area prone to flooding. Mark on any key roads, schools, residential areas and all water bodies.
2. Mark on the map the key activities that take place in and around the water bodies.
3. Discuss the hazards associated with these activities and mark on the map where the hazards are.
4. For each hazard discuss who is at risk and mark on the map the best place to reach these people.
5. For each hazard discuss a suitable solution to the problem. Think about how you will target those at risk and the resources you will need.



Unit 2: Researching the issue of drowning

2.2 Historical incident data

Historical data can be researched through the internet, local knowledge and different areas regularly affected by floods. It is important to try to build up a clear picture to ensure there is a need, which in turn should inform what type of service should be provided.

Case history of the UK responses to floods

In Spring 2006, the Department for Environment, Food and Rural Affairs (Defra) undertook a detailed assessment of flood emergency planning and preparedness in England and Wales. The analysis clearly showed a shortfall in capability to rescue people.

Since then, a number of organisations have adopted a collaborative approach to training their staff in floodwater rescue.

The floods in Summer 2007 tested flood rescue capability across England. Sir Michael Pitt's review praised the role of many organisations carrying out flood rescue, including the Fire and Rescue Service (FRS), the Maritime and Coastguard Agency (MCA), the Royal National Lifeboat Institution (RNLI) and the Armed Forces.

The Pitt Review concluded that a national framework was required, establishing standards for typing and accreditation of rescue teams and setting standards for equipment and training.

This framework would also facilitate the accreditation and incorporation of volunteers, thereby making their engagement easier. In Sir Michael's recommendation number 39 stated that:

'The Government should urgently put in place a fully funded national capability for flood rescue, with Fire and Rescue Authorities playing a leading role, underpinned as necessary by a statutory duty.'





Learning outcomes

- 3.1 Understand what a risk assessment is.
- 3.2 Understand how risk assessment relates to flood rescue service implementation.
- 3.3 Understand how to identify hazards and risk levels.
- 3.4 Understand how to begin implementing suitable control measures resulting from a risk assessment.

Unit 3: Risk assessment

3.1 What is risk assessment?

Risk assessment is a systematic process of evaluating the hazards and risks involved in an activity and identifying suitable control measures to try and reduce the risk.

A hazard is something that has the potential to cause harm.

Risk is the probability that somebody is likely to be harmed by a hazard. This is often described as:

severity x possibility

For example, the severity of the hazard multiplied by the possibility that it will cause somebody harm.

Control measures are steps taken to guard people against a hazard or hazards and therefore lower the levels of risk.

A risk assessment should not be a complex or difficult process. It should be a sensible approach to managing safety for flood rescue service and members of the public.

3.2 Flood risk assessment

Conducting a risk assessment is one of the first steps in managing safety. It allows you to formally evaluate the hazards in your area of operation, determine the level of risk to identified users, and decide on suitable control measures. It helps to inform your decisions on the level of service that you need, how you will determine the level of service you will provide, what equipment and boats you will use and what other complementary services you might wish to employ (such as signage, education and public rescue equipment).

A flood risk assessment focuses on hazards within a defined geographical area.

Risk assessments should also be completed for tasks being undertaken by your employees, especially tasks considered to have an element of risk. For example: flood rescuers are required to work in hazardous areas and could potentially end up in the water. A risk assessment is necessary to determine what control measures need to be put into place in order to minimise that risk. Examples of control measures for this could be:

- wearing a personal flotation device (PFD)
- wearing appropriate thermal protection
- having a means to attract attention.



Risk assessing a suitable flood training venue

3.3 Hazard, risk and control measures

The first stage of a risk assessment is to identify any hazards. There are different ways of doing this but, for a flood environment risk assessment, one of the most important is to visit the area and look at the hazards yourself. While in the area, you should also be able to see the potential hazards and how this affects the risk levels.

Examples of hazards you should look for are:

- bridges
- river banks
- electricity supplies
- street furniture
- sources of contamination i.e. sewage/fuel/chemical plants.

The level of risk is influenced by how many people are being exposed to the hazards, and how frequently. For example, a large number of people living close to a flood zone with limited methods of evacuation is a high risk. Another example of high risk would be a hospital or school within a flood zone.

When conducting your risk assessment visit, always try and meet a stakeholder who is familiar with the area affected by flooding and the way in which it is used by the public.

See the supporting forms and documents section at the end of this guide, for an example of a completed risk assessment and template.

Examples of hazards, risks and control measures

	Description	Aquatic example	Classroom example
Hazard	Something that can cause harm.	Strong current in a flooded environment.	Exposed wire from electrical socket.
Risk	A combination of the possibility of the hazard causing injury and the severity of the injury. Often the possibility and severity are given numerical values, which are multiplied to give the risk.	Possibility: It is possible that the flood rescuers will fall into the river during rescues. Severity: If they fall into the river the flood rescuers may drown due to the strong current.	Possibility: It is possible that someone may touch the exposed wire while plugging in an appliance. Severity: If they touch the exposed wire they will receive an electric shock that may cause them to stop breathing.
Control measure	A safety system that is put in place to reduce the risk.	Make sure that access to the water is restricted. Make sure the flood rescuers are wearing buoyancy aids. Make sure that the rescuers are made aware of the strong current and have been trained on what to do if they fall in. Make sure that a team member is available and positioned to perform a downstream rescue if required.	Make sure that the circuit with the exposed wire is turned off at the consumer unit. Make sure that the exposed wire is made safe with an insulation block or barrier. Make sure that students are aware that parts of the electrical system are unsafe and should not be touched.

Unit 3: Risk assessment

Risk matrix

Possibility	3 - High Likely to happen	3 - Medium	6 - High	9 - High
	2 - Medium Could happen occasionally	2 - Low	4 - Medium	6 - High
	1 - Low Unlikely to happen	1 - Low	2 - Low	3 - Medium
		1 - Minor Little or no damage to property or people. Any injuries likely to be minor.	2 - Major Some damage to property or people could happen. Injuries could be major.	3 - Fatal Damage to property or people likely. Death or multiple deaths could occur.
		Severity		

A risk matrix is shown above. This is a tool to help you decide on the level of control measures to put in place. If the hazards you are assessing fall into the 'low' category, then you might not need any new control measures. If a hazard falls into the 'medium' category then control measures should be considered. If a hazard falls into the 'high' category then you must put control measures in place, or stop activities altogether.

Some things to consider when deciding on control measures are:

- What control measures are already in place and are they appropriate?
- Can I remove the hazard altogether?
- Could access to the hazard be controlled in some way?
- Would improved signage help?
- Do the flood rescuers need personal protective equipment (PPE)?
- Have I consulted the right people in identifying the risk levels?
- What money, resources or time do I have available to control this risk?

Providing answers to these questions will help as a starting point.

The kind of control measures you might want to consider for a flood environment could be:

- improving flood warning systems
- developing evacuation plans
- improving safety signage
- investing in public rescue equipment
- delivering water safety lessons in local schools
- training local volunteers in rescue techniques and first aid
- implementing a flood rescue service.

All the findings and recommendations from your risk assessments should be recorded on a risk assessment template (see the supporting forms and documentation at the end of this book). This document should be reviewed at regular intervals, usually each year and/or after a significant incident, for example, following a major change in the topography of the river bank and/or floodplain.

Having an organised filing system for your risk assessments will greatly aid this review process. This can be organised online, on your computer (providing it is backed up) or in a paper format if you do not have access to digital resources.

It is worth remembering that you can only do what is reasonable to control risks. This means balancing the level of risk against the time, trouble and/or money it would take in order to implement control measures. You can only work on the information that is available to you at the time of completing your risk assessment and you cannot be expected to account for unforeseeable risks.

3.4 Implementing control measures

Risk assessments are only useful if you implement the control measures that you have identified. Developing a plan or timetable will assist greatly.

It may be that not all of the responsibility for implementing the control measures sits with you or your organisation. In this case, it is important to work closely with the stakeholders involved and assist them wherever necessary to ensure that identified work is carried out.

Flood warning systems

Flood warning is the provision of an advanced warning of conditions that are likely to cause flooding to property and a potential risk to life. The main purpose of a flood warning is to save life by allowing people, support and emergency services time to prepare for flooding.



Examples of known flood zones

Public flood warning service codes

There are four developed codes that indicate the level of danger associated with the warning. The codes are not always used in sequence; for example in the case of a flash flood, a severe flood warning may be issued immediately, with no other warning code preceding it.



Flood alert:

Flooding is possible and people should prepare for it. This will be issued between 2 days to 2 hours in advance of flooding.



Flood warning:

Flooding is expected and immediate action is required. This will be issued half an hour to 1 day in advance of flooding.



Severe flood warning:

Severe flooding. Danger to life. This warning is used when there is a significant threat to life.

Warnings no longer in force:

No further flooding is currently expected in your area.



Information, caution and warning signs

Unit 4: Stakeholder engagement



Learning outcomes

- 4.1 Understand the difference between an internal and external stakeholder.
- 4.2 Understand the benefits of working in collaboration with other lifesaving organisations.
- 4.3 Understand how to work with local and national government.
- 4.4 Understand what organisations could work with a flood rescue service.
- 4.5 Know how to prioritise which stakeholders need the most engagement.
- 4.6 Understand the benefits of having a memorandum of understanding (MOU) between different organisations.

Preventing and mitigating against the effects of floods requires the commitment of governments, development organisations and many other stakeholders.

It is important for all stakeholders, particularly governments, to take the lead in flood prevention; in the long term this will allow more lives to be saved, avert economic losses and foster sustainable development. When government leadership encourages humanitarian and development organisations to work more effectively together, then this will help multiply their impact.

Establish a national coordination forum to jointly analyse and address risks, monitor and share early warning information, and develop triggers for action.

4.1 Internal and external stakeholders

Stakeholders can be engaged through both formal and informal processes. A formal relationship might involve regular, documented meetings to record the progress of your working relationships.

Informal processes might be better suited to external community stakeholders who prefer a more relaxed approach.

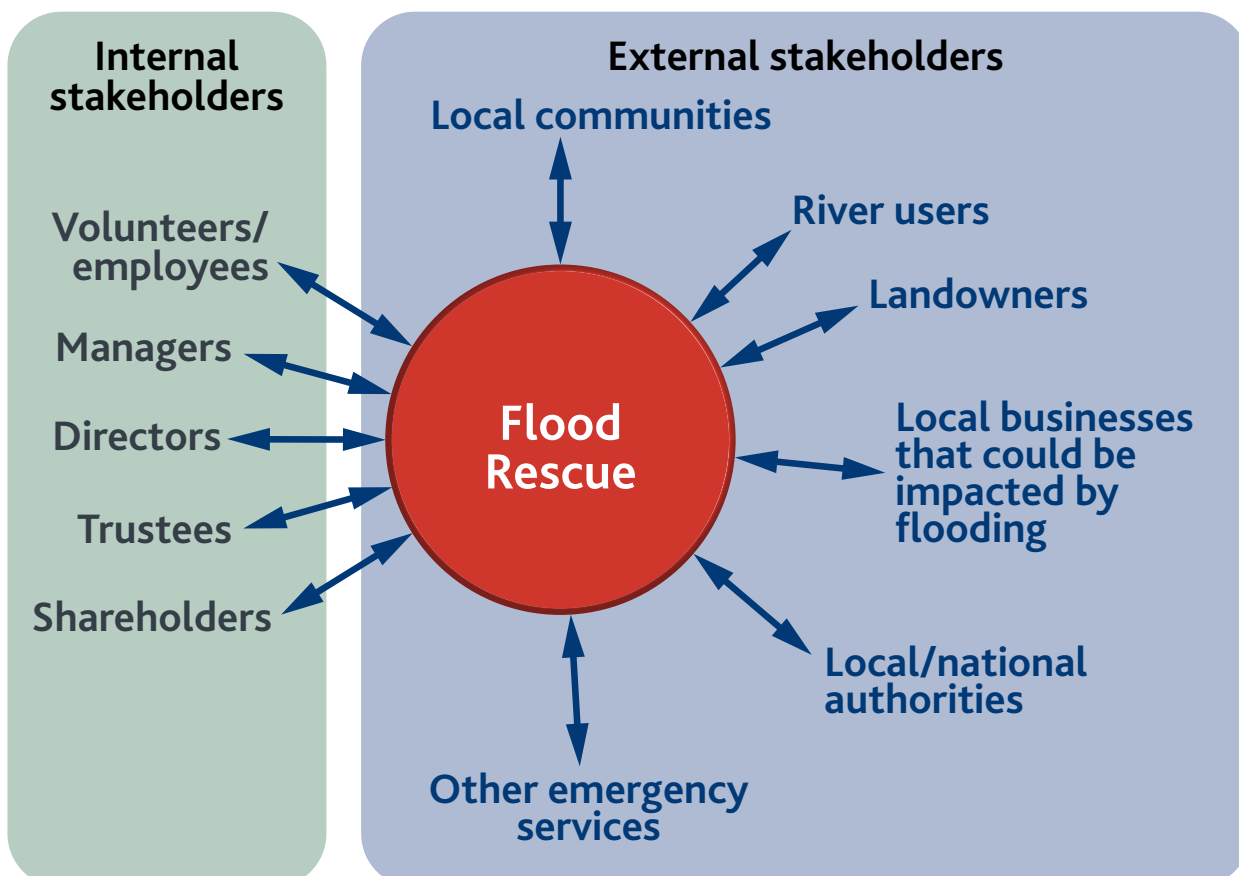
Different examples of stakeholders in a flood rescue service and how to work with them are discussed in this section.

Internal stakeholders are groups within your organisation, for example, employees, directors, trustees or donors.

External stakeholders are groups or individuals that are outside of your organisation but have an impact on your activities. They might be local communities that are affected by floods, farming communities, land owners, local authorities or other emergency services.

Local businesses

Local business owners may have an important role to play in supporting the introduction of a new service in terms of logistical support or advocacy. They could also help to provide background information to your



Unit 4: Stakeholder engagement

risk assessment. In some instances, local businesses might be interested in contributing financially to the introduction of a flood rescue service.

Role of the flood rescue service

There are a number of critical roles a flood rescue service can provide. These include:

- reduction of loss of life and suffering
- a safer and more secure environment for industries, commerce, recreation and travel
- an initial response and relief capabilities to saving lives in early stages of natural and man-made disasters
- an integral part of any local, national or regional emergency management system
- promoting communication and cooperation among states because it is a relatively non-controversial, humanitarian mission
- providing an excellent tool for cooperation in other areas such as:
 - providing positive publicity (poor or ineffective response to a major accident or disaster can adversely affect sensitive industries such as tourism and transportation)
 - increasing safety and promoting economic development
 - possible savings of valuable property, which can be high.

Protecting the environment and saving lives is a global economic investment of growing

importance. A flood rescue service can provide a competitive advantage in a global economy.

Role of the flood forecasting centre

In order for a flood rescue service to be able to provide an effective response it is important that they have accurate and up-to-date weather information and forecasting.

In the UK, the provision of a national flood warning service currently operates 24 hours and 365 days a year and involves the following processes:

- detection
- forecasting
- warning
- response.

The aim of the flood forecasting centre is to:

'Provide responders with information that will assist them in preparing, responding and recovering from flooding.'

It is also worth noting that, in addition, coastal flooding is also considered, taking into account the effects of high winds, high tides and knowledge of the sea defences.

Responders need better quality information earlier in the flood warning phase so they can effectively prepare ahead for any flooding event. This will also



Up-to-date weather forecasts are essential

aid the targeting of flood information and warnings to the public.

4.2 Other lifesaving services

There are a number of different lifesaving services both in the UK and in the international arena. It is worth working in collaboration with other services, as they can help with training, skills and expertise in other areas.



Some examples of UK-based organisations are:



- St John Ambulance



- Samaritans



- The Salvation Army
- Various air ambulance organisations.

4.3 Local and national government

It is important that a flood rescue service works alongside other organisations that can provide different roles and levels of support during a flood.

National government will provide overarching policies and mandates for other organisations to work inside. This may have an effect on your organisation.

In the UK there is an established national flood emergency framework that includes a number of different local and national agencies.

These authorities and organisations are committed

Unit 4: Stakeholder engagement

to a cohesive and cooperative partnership, the aim of which is the continued provision of an effective national flood rescue capability.

4.4 Who could work with a flood rescue organisation?

Military defence

In some countries, military defence has responsibility for providing search and rescue (SAR) facilities for military operations and, by agreement, exercises responsibility for the coordination of civil aeronautical SAR. Where the coverage provided by military SAR assets meets the civil SAR coverage requirements, they may be made available for civil maritime and land-based SAR



operations. In some countries, the military maintains an aeronautical rescue coordination centre for the operation and coordination of civil and military aeronautical SAR assets.

Fire and rescue services

Fire and rescue services have a statutory responsibility to deal with fires and road traffic collisions. Each fire authority has the power to use the resources primarily provided for firefighting



to deal with non-fire incidents. These may include maritime, aeronautical and land-based SAR operations. It is for each fire authority to set its own policy in regard to SAR operations and these will vary around the world.

Ambulance services

Ambulance services have a statutory responsibility to



respond to traumatic and medical emergencies. Land



ambulances may in some areas be complemented by a helicopter emergency medical service, assets that may assist in SAR tasks in circumstances compatible with the type and operating limitations of the aircraft.



Civil defence

Many countries still maintain a national civil defence corps, usually having a wide brief for assisting in large-scale civil emergencies such as flood, earthquake, invasion or civil disorder.

Mountain rescue services

Mountain rescue offers support to activities that



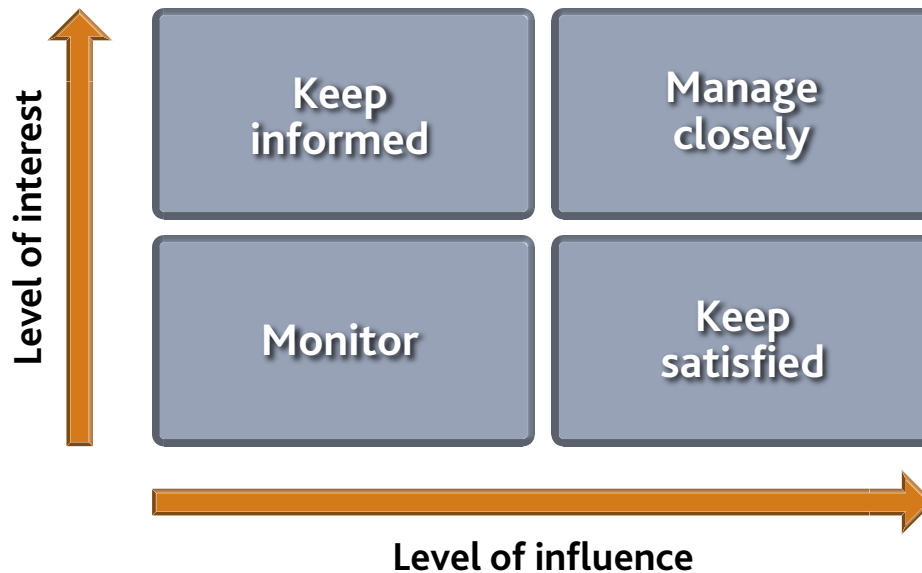
occur in a mountainous environment. The term is sometimes used to apply to search and rescue in other wilderness environments. This tends to include mountains with technical rope access issues, snow, avalanches, ice, crevasses, glaciers, alpine environments and high altitudes.

Cave rescue services

Cave rescue is a very specialised skill. Normal emergency staff are rarely employed in the underground elements of the rescue. Instead, this is usually undertaken by other experienced cavers who undergo regular training through their organisations and are called up when needed.

Unit 4: Stakeholder engagement

Summary



It is vital that all flood rescue responders train and exercise together. This is invaluable to test out operating procedures and communication systems. It is also vital for working in collaboration and developing personal relationships in order to have a positive working ethos when responding to emergency situations.

4.5 Stakeholder matrix

The stakeholder matrix shown above will help you prioritise which stakeholders need the most engagement.

Try this activity: Draw out the matrix above on a sheet of paper, and then write down each of your stakeholders on smaller, separate pieces of paper. Decide how much influence your different stakeholders have on your service (how much they affect you), and how much interest they have in your service (how much you affect them). Now, based on this, place each stakeholder in the appropriate box.

Once you have mapped the interests of the stakeholders you can then prioritise how much engagement you need to have with them.

If your stakeholder has a high level of interest and a high level of influence, it is important to maintain a good relationship with them and manage them closely. This usually means regular meetings, phone calls, reports and emails to keep them well informed. The type of stakeholder that might fall into this category could be a landowner.

If your stakeholder has a high level of influence but only limited interest, then maintain a good relationship with them to keep them satisfied, but they may not need regular information from you.

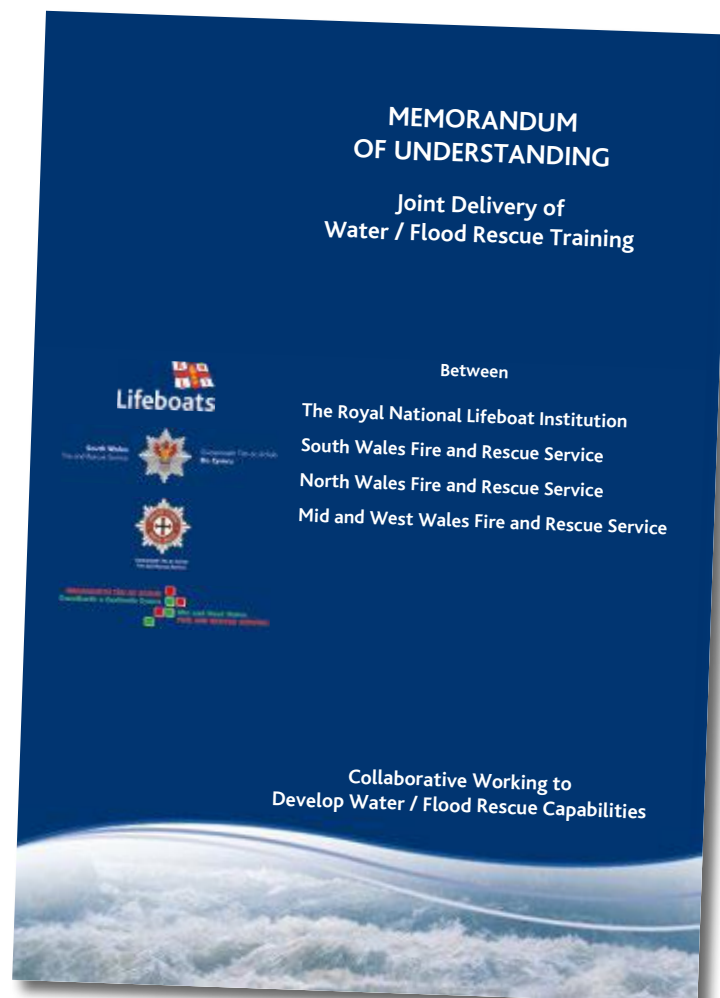
If the stakeholder has a high level of interest but only limited influence, then keep them informed, which could be with written reports or emails.

Stakeholders who have limited influence and interest require less communication but monitor their activity and contact them when you need to.

4.6 Memorandum of understanding

When working with external stakeholders, it is worth having some form of agreement. This can be achieved by establishing a Memorandum of Understanding (MOU).

An MOU is a formal agreement between two or more parties. Companies and organisations can use an MOU to establish official partnerships. MOUs are not legally binding but they carry a degree of seriousness and mutual respect and can sometimes be vital to ensure that both organisations agree on set standards, ways of communicating and working in collaboration.





Learning outcomes

- 5.1 Understand the importance of having a suitable staffing structure in order to have the right people to provide a flood rescue service.
- 5.2 Understand the different roles and responsibilities that make up a flood rescue service.
- 5.3 Understand the importance of having the correct service levels to operate a flood rescue service.
- 5.4 Understand the importance of training.

5.1 Staffing structure

In order for a flood rescue service to carry out its role, it is vital that it has the right competent people. Competence is the ability of an individual to do a job properly. A competency is a set of defined behaviours and skills that provide a structured guide enabling the identification, evaluation and development of the behaviours in individual employees. It is important for an organisation to quantify how many people it needs in order to provide a service. This can be laid out in a formal staffing structure, an example is shown on the next page.

5.2 Roles and responsibilities Incident Command System (ICS)

Rescue agencies in the UK work under the Fire and Rescue Service Incident Command System (ICS) for flood deployments and multi-agency incidents. This consists of three levels, strategic command (gold), tactical command (silver) and operational command (bronze).

Strategic command (gold)

Gold command will normally be set up if it is known that the scale of operations will exceed the capability of tactical command, which is often the case at a large-scale flood. The purpose of the strategic level of local emergency response management is to establish a framework to support officers operating at the tactical level of command by providing resources, prioritising demands from officers and determining plans for the return to normality. Gold command will normally be located well away from the incident site, and might be held at cabinet office level. Gold command will not normally have links directly to bronze command on the ground, acting only as a strategic resource for silver command.

Tactical command (silver)

The silver command's role is to manage the overall incident, determining priorities, allocating resources, and obtaining additional resources as required. It is also to ensure that the actions taken by bronze commands are coordinated, coherent and integrated, in order to achieve maximum effectiveness and efficiency. Early consideration will also be given to consequence management and the recovery phase. Silver will usually comprise the most senior officers of each agency committed at the incident and will

assume tactical command of the event or situation. The incident commander heads this part of the command structure and is recognised by a white helmet worn in conjunction with a white tabard that may also be marked with 'incident commander'.

Operational command (bronze)

The operational level is where the management of the immediate work is undertaken at the emergency site(s) or other affected area. Personnel first on the scene will take immediate steps to assess the nature and extent of the problem, formulate a plan and concentrate efforts and resources on the specific tasks within their area of responsibility. For example, police will concentrate on establishing cordons, maintaining security and managing traffic. Agencies retain control of resources and personnel deployed at the scene but each agency must also liaise and coordinate with other agencies.

Incident commander

The incident commander (IC) is the first point of contact at an emerging incident. They will normally take command of the incident at the operational level, and will be responsible for decision making on the ground.

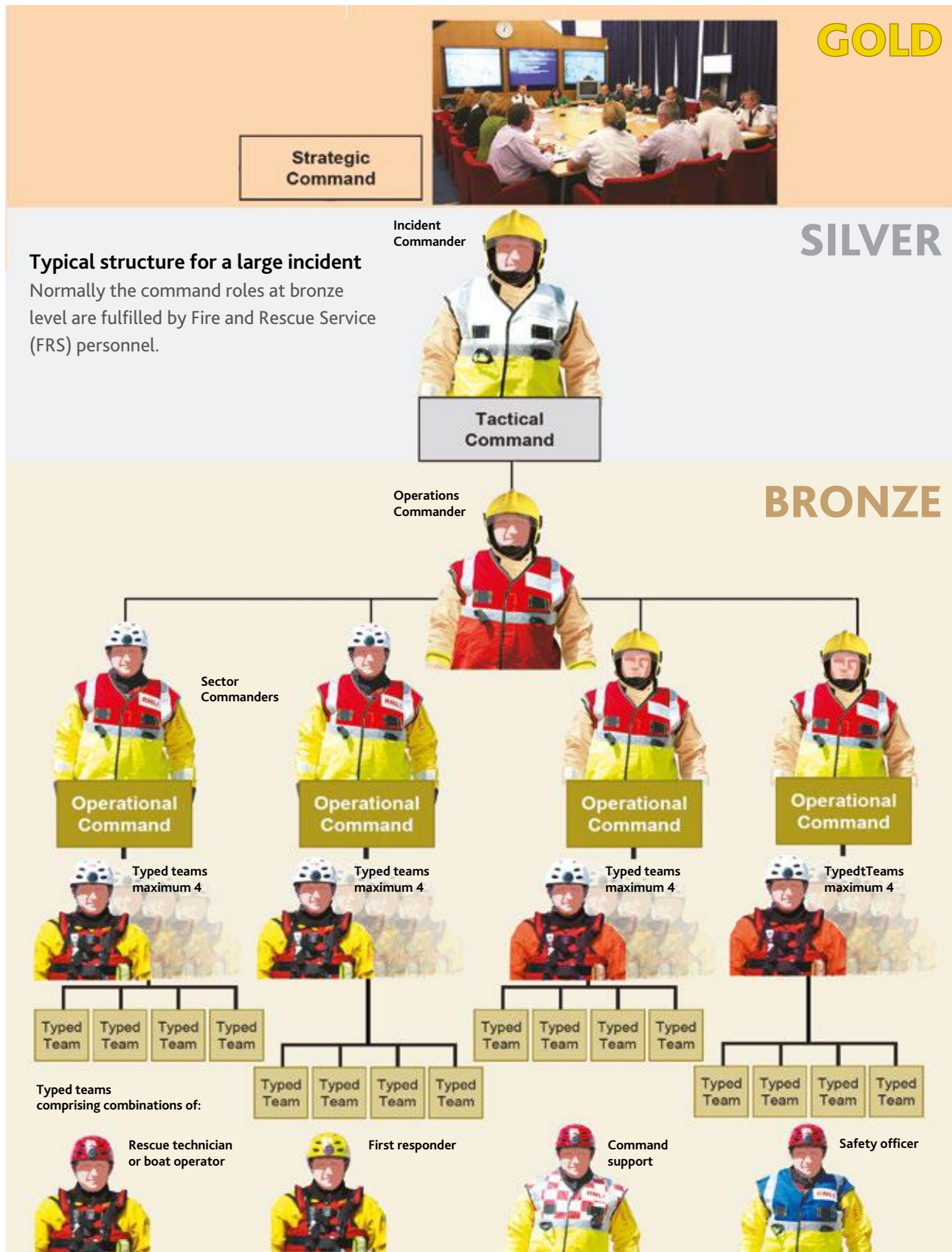
Sector commander

When an incident is considered large, or is over an area, it is often split into sectors, with a commander taking charge of each. They themselves can have up to four teams. The sector commander is recognised by a white helmet in conjunction with a red and yellow tabard that may also be marked with 'sector commander'.

Command support

Command support should be introduced at all incidents to assist the IC in the management of the scene. A suitably experienced member of personnel should be nominated to operate command support and be clearly identifiable at every incident. Their role is to:

- act as first point of contact for all attending services and maintain a physical record of resources in attendance
- assist the IC with liaison with other agencies
- direct all resources to the required operational location or marshalling area.



Flood response command structure in the UK

Safety officer

Sector commanders should consider appointing safety officers, either for specific areas of concern (for example, launch and recovery site or dangerous terrain) or for general support. Safety officers should report directly to the sector commander but must liaise with other safety officers at every opportunity. A safety officer will be responsible for the following:

- identify safety issues
- advise corrective action
- ensure all personnel wear appropriate PPE
- observe the environment
- monitor the physical condition of personnel
- regularly review.

Operations commander

The purpose of the operations commander is to allow the incident commander to maintain a workable span of control when an incident develops in size or complexity. The operations commander has operational command of up to four teams. They are a member of the command team and operate on behalf of the incident commander at tactical/silver level. They are recognised by a white helmet in conjunction with a red tabard that may also be marked with 'operations commander'.

Team leader

In the UK the team leader is recognised by a white helmet, usually worn in conjunction with relevant operational PPE and would be responsible for managing and briefing the team.

Team members

Flood water rescue technician (FWRT) or flood water rescue boat operator (FWRBO)

In the UK they are recognised by a red helmet, usually worn in conjunction with relevant operational PPE. Their main role would be to carry out search and rescue operations within the water environment. They would also be responsible for operating and carrying out rescues with an approved power boat.

First responder

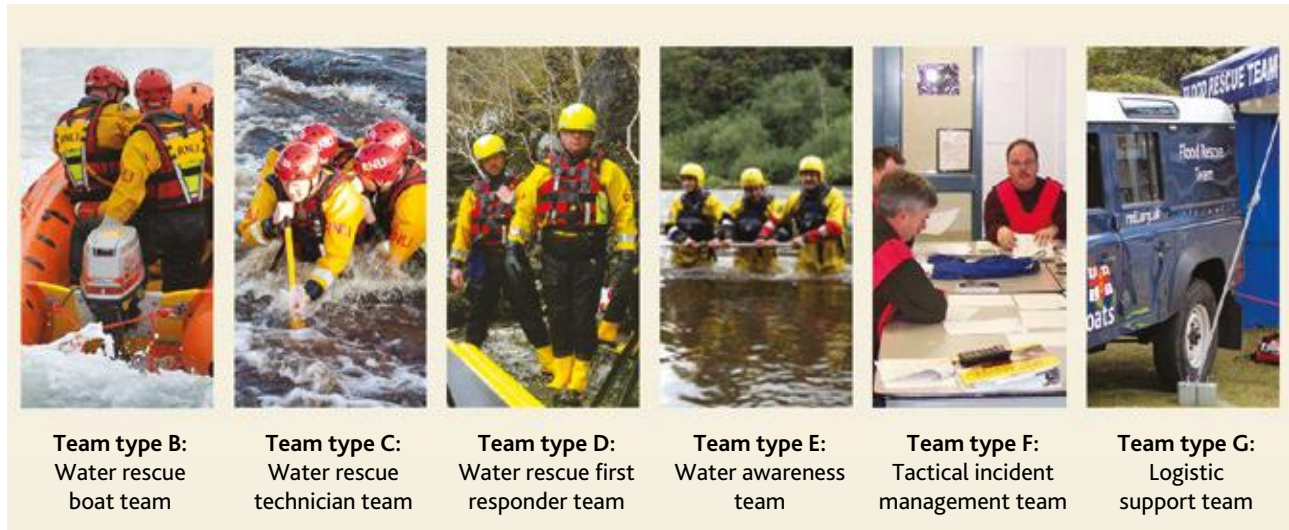
In the UK they are recognised by a yellow helmet, usually worn in conjunction with relevant operational PPE. Their main role would be to carry out land-based search and rescue and bank-based safety.



Unit 5: People

Defra national team typing

In the UK, to aid with major incidents, the Defra national flood rescue enhancement programme concept of operations uses team typing. The teams should be self-sustainable for up to 4 days.



Team type C: Water rescue technician team



The type C team is made up of seven suitably qualified members as listed on the chart on page 36. They are trained to take part in the following activities:

- technical water rescue
- search operations within the water environment
- in-water operations
- flood response
- rescue from unstable surfaces.

Team type B: Water rescue boat team



The type B team is made up of seven suitably qualified members as listed on the chart on page 36. They have all capabilities of a type C team plus the following:

- powered boat operations.

5.3 Service levels

The RNLI operates a scheme of complement (SoC), which is a list of all the roles within an area/location/ team and the recommended number of competent people required in each of those roles to remain operationally capable at all times.

1 DEPLOYABLE
Type B Boat Team:

Role	Number for deployment	Relief team	Total SoC required
Team manager	1	1	2
FWRBO	6	6	12
Team leader*	2*	2*	4*
Driver*	2*	2*	4*
Total	7	7	14

* These roles are covered by those included in the 6 FWRBO roles

The number of people in each role is determined by discussion with the area, team, operational unit, people available and the management group that oversee it.

The recruitment and training of people is based around each area's scheme of complement. By regularly updating and checking the scheme of complement, shortfalls in personnel, or anticipated shortfalls, can be easily identified. This allows existing people to be trained as replacements in advance of the shortfall, or for new recruits to be enrolled.

To aid in succession planning and identifying training requirements, the target number and actual number of individuals can be identified on a suitable database system.



5.4 Training

Developing a competence framework

Competence is the ability of an individual to do a job properly. A competency is a set of defined behaviours and skills that provide a structured guide enabling the identification, evaluation and development of the behaviours in individual employees.

A competence framework has many advantages to both the organisation and to the individual, whether they are staff or a volunteer.

For the organisation it:

- ensures that it establishes what qualities are required in its people
- can help to identify the total number of people with certain skills and knowledge needed to do get a task done (known as scheme of complement)
- can help to recruit the right people with the right skills in the first place
- provides standardisation, making skills and knowledge transferable across groups and locations
- provides quality assurance
- ensures that training is targeted and cost effective (competence-based training).

For the individual it:

- provides a guide as to what they need to be able to do or know right from the start
- ensures that what they need to know is the same as their peers (shared skill and knowledge)
- gives them a tool to see their development and assess their progress.

A competent individual is one that 'has the required skills, knowledge, attitude and qualifications to complete a required task safely and appropriately or meet a required standard' – an important thing for any organisation to know about its people. This is why competence frameworks are such a useful tool in managing people.



Regular training is important to avoid skill fade

An example of a development plan is shown in the supporting forms and documents section at the end of this guide.

Any internet search will give many different examples of how to lay out a competence framework, which is often dependent on the type of competencies you are focused on. Some are more focused towards behaviours and soft skills, others are known as competent-to-operate frameworks where they are more functional competencies.

The most important thing is that a competence framework is easy to use for the organisation, those training and assessing against it, and the individuals themselves. In its simplest form it can be a list of all the things that are needed to be completed.

In all cases a competence framework has the following:

- **Titles** – Clear headings stating the topic/area/ activity it covers.
- **Sub-titles/Sections** – Often the title is a large topic or activity that requires it to be broken down further to see the steps involved.
- **Assessment criteria** – These show the specific level of detail or ability required, also known as learning outcomes.

- **Associated roles** – In cases where more than one role may be covered by a framework, it will state which roles are required to operate to this standard.
- **Activity log** – It must have some way of recording when someone has been trained or assessed and who it was that did this.
- **Revalidation period** – Include how long they are considered competent before they need to be rechecked.

While all of the above are critical, the most important element is to establish the **assessment criteria**.

These give the framework the level of standardisation to the organisation, and the clear direction required for the individual. The assessment criteria simply tells everyone the level of knowledge/ability/standard that is required. An example is that someone may need to 'identify' a VHF radio, which means they need to be able to recognise a radio versus 'demonstrate' using a VHF radio where you would expect someone to be able to operate it and all its associated functions.

An example of an assessment unit and assessment criteria is shown in the supporting forms and documents section at the end of this guide.

The assessment criteria provide an important element for the individual, which is critical if you wish all training and assessment to be standard across the organisation and those training and assessing your people.

Competence and staying current and in date

Competence is assessed at any one moment in time. It is important, once assessed, that they maintain their level of competence and stay in date. Things that can affect their level of competence are:

- **skill fade** – the process of unlearning (forgetting) or becoming unfamiliar with skills and knowledge
- **equipment changes** – the changing of equipment used could mean that they are no longer competent and familiar with using it
- **procedure/legal22/policy changes** – when there is a change in the law or a way of working internally; competence will need to be rechecked after any change.

Sometimes there is also a legal requirement to reconfirm competence such as rechecking an individual's driving licence or sea survival skills. In these cases, follow the law of the country or state.

The advantage of skilled trainers and assessors

Whether the organisation has a competence framework or not, there are still many advantages of having a group of trainers and assessors in any organisation.

Put simply, if you can train a skill to five trainers, how many people can they then teach over the coming year? **Train one, save many.**

Trainers are key personnel in any organisation in passing on knowledge and skills. They can also pass on key organisational messages and new safety information quickly. Often they are already part of a group or team.

Many organisations use known competent operators to lead training sessions rather than having full-time training teams. The key is to ensure that the group of trainers keep talking to each other, and that they use the same techniques, follow the same procedures, and require the same from the people they train.

Any organisation that has a competence framework for new and existing roles should also aspire to having the same for those that are training and assessing it.

It is also key that the trainer/assessors are checked on a regular basis themselves to ensure standardisation. This can be done in a number of ways including:

- peer verification – one trainer checking another's work
- internal verification – someone who is allocated the role of formally checking the work of the trainer/assessors in the organisation
- external verification – somebody coming in and reviewing the work of a trainer against the standards from outside the organisation.

In all cases, like recording of the training and assessing itself, this should be recorded as a means of quality assuring the work they undertake.

Unit 6: Equipment



Learning outcomes

- 6.1 Understand the importance and use of PPE (personal protective equipment).
- 6.2 Understand the different types of rescue equipment available to a flood rescue service.
- 6.3 Understand how first aid relates to flood rescue.

For an organisation to be a successful flood rescue provider, a number of resources need to be in place. The human element needed has already been discussed and there are also a number of other areas that need to be suitably resourced.

The organisation should establish procedures to ensure that all equipment being utilised for flood rescue operations meets the relevant standards and legislative requirements and meets the needs of the rescue personnel and those in distress. The development of equipment should be based on risk assessments that should address potential foreseeable failures.

Protecting rescuers when dealing with flooding and water rescue requires very different clothing and accessories than protecting them during land-based rescues. This equipment will generally consist of personal flotation devices (PFDs), drysuits, undersuits, footwear, helmets, gloves and other protective garments, to ensure responders have the right attire to deal with what can be a very hostile environment.

6.1 Personal protective equipment (PPE)



Above shows an example of a fully equipped flood rescue responder. The following are examples of the various types of equipment you can expect for a flood rescue responder to use.

Helmet



The main purpose of the helmet is to provide the wearer with protection from impact while working in a flooded environment, especially if the rescuer should end up in fast flowing water where there could be the risk of impact from debris or obstacles in the water.

The helmet should be lightweight with a chin strap and allow the water to flow through it should the wearer end up in the water. Heavy fire or motorbike helmets are not recommended.

Different coloured helmets can also be used to identify different personnel and the level of training they might have received. In the UK the following colours denote the following:

- yellow – first responder
- red – technician/boat operator
- white – team leader/incident commander.

Unit 6: Equipment

Personal flotation device (PFD)



Any time rescuers are exposed to moving water, their chances for accidental drowning increase. Even good swimmers are easily overcome by swift-moving water, which is common in a flooded environment.

Therefore, it is vital that PFDs are worn when the rescuer is close to the water. The PFD should ideally be easy to fit and suitable for wearing in water. There are a number of different types on the market.

Cowstail



A cowstail is an integral part of the flood rescuer's personal flotation device. This is vital if the rescuer is to enter the water to perform a rescue, as this is a means of keeping him attached to appropriate backup on the bank. It also allows for the rescuer to self-release should they become tangled.

Throwbag



The throwbag is a vital rescue tool for a flood responder. Ideally, it should be a floating rope and be highly visible. Also, it needs to be easy for the rescuer to carry, which can generally be achieved by incorporating it into a belt.

Whistle



Whistles are a vital form of general communication, especially in a flood environment, where there can be a lot of noise and verbal communication is difficult. They can also be used for emergency situations. All flood responders should carry one and it should be located on the personal flotation device within easy reach for use. Also whistle communication should be standardised so that all responders know what different whistle blasts mean.

Knife



All responders should carry a knife as these can be used for assistance in rescues, especially for removing snag hazards or possible entrapments with lines.

Drysuit



Dry suits are very useful for keeping the flood responder protected from the elements and also from potential contamination. In tropical countries a drysuit is not always going to be appropriate.

Undersuit



Depending on weather conditions, an undersuit is vital for keeping the responder warm during a flood rescue deployment. Undersuits are generally worn under a drysuit.

Appropriate footwear



It is important that the responder is fitted with appropriate footwear, ideally with a non-slip sole, waterproof, and with some form of ankle support.

Wading pole



These can be used for the flood rescuer to wade and check the underfoot area for hazards. It can also be used to provide support when carrying out wade rescues. They can also be used to carry out basic reach rescues.

Head torch and glow stick



A waterproof head torch and glow sticks are essential for working at night and in dark areas.

Unit 6: Equipment

6.2 Flood rescue team equipment

There are a number of different types of equipment a flood rescue team should consider having:

Communication equipment



Communication equipment is going to be a vital part of providing the service. It should be able to provide a two-way communication between both the flood command and the flood rescue team.

Boats

There are currently many types of boat available to the rescue services. These fall into two categories, powered and unpowered.



An example of an unpowered boat



An example of a powered boat

It may be difficult for an organisation to find a single solution for all rescue needs in one particular craft.

Rescue organisations must identify critical requirements that their rescue boats must be capable of achieving. The following points should be considered before selecting a particular type of rescue boat:

- What will the boat mainly be used for?
- What type(s) of water will the boat mainly operate on – estuary/river/flood/swift water?
- How many crew are required to operate the boat safely?
- How will the boat be transported?
- Where and how will the boat be launched – from a trailer/manually handled?
- How will the boat be maintained?
- What will the carrying capacity be (number of people and weight)?
- What speed of flow in the flood will the boat operate in?
- Where will the crew and casualties be positioned?
- What will be the potential of free surface water effect? Before making a decision, remember that flood and swift-water environments present ever-changing conditions and, as a result, different response needs.

The conditions might range from fast-flowing strong currents, where a high-powered and fast boat is preferable, to slow moving water covering a flood plain, where a more robust craft might be the better option.

Scene lighting



Flood rescue teams regularly work during the night so scene lighting is essential for safe and effective rescue operations.

Technical rope kit

This is an assortment of equipment to be used for more technical rescues.



Weather forecast



A means of obtaining live meteorological information is vital both for the incident commanders and the flood rescue teams. The forecast should include present, historical and future conditions. The team leader should be receiving regular forecast updates.

Decontaminating kit



It is important to have a means of decontamination after operating in a flooded environment.

Maintenance

The crews should be equipped to suit their tasks, roles and responsibilities and the organisation should establish a system of maintenance routines for all equipment including:

- identification of safety critical elements and potential operational failures, with specific control measures
- inspection and testing protocols
- maintenance programmes and maintenance records
- suitable training in order to ensure correct use of the equipment.

6.3 First aid

Flood rescuers are often the first people on scene to help people in trouble during a flood.

First aid is basic medical care that can be administered by trained people with limited equipment. The aims of first aid are to preserve life, prevent worsening of the condition, and promote recovery of the casualty.

Flood rescuers should be trained in first aid techniques and be provided with first aid equipment to use in order to deal with these situations when they arise.



Examples of first aid equipment

Unit 7: Facilities



Learning outcomes

- 7.1 Understand some of the factors to consider when establishing an operating base.
- 7.2 Understand some of the procedures for a flood rescue deployment.

7.1 Operational facilities

By the nature of floods it is important that the response equipment is fully mobile and that any team deploying can be self-sustainable for a period of time.

The equipment should be ready to deploy at short notice and kept maintained and ready for service.



7.2 Flood rescue deployment

Depending on the type of flood incident, there can be a number of associated deployment tasks. This could include methods of alerting responders, mobilisation of personnel, agreed meeting points, compliance checks, hazards and launching of boats.

It is recommended that the flood rescue service identifies the requirements for training and has operating procedures for the various tasks.

Launching of boats

You need to be aware that launch sites can change depending on a number of factors. It is recommended that suitable alternative sites to launch and recover are identified in the flooded environment.

When identifying suitable alternative launch and recovery sites, the following should be taken into consideration:

- access/egress
- water levels
- weather forecast
- street furniture
- ground (such as mud, pebbles or bank steepness).



4WD vehicle – for launching boats and general operational support

Unit 8: Operating procedures



Learning outcomes

- 8.1 Understand the importance of having procedures.
- 8.2 Understand what type of information should be contained in a standard operating procedure (SOP).
- 8.3 Understand the use of SMEAC (situation, mission, execution, administration, command and communication) for briefing.
- 8.4 Understand what a rota is.
- 8.5 Understand some of the limiting factors that can affect an ability to provide a flood rescue service.

8.1 Importance of procedures

Having set procedures in place for your organisation helps to ensure consistency, both in the delivery of your service and the expectations of your employees. These procedures should be set before the delivery of your service begins, and should be reviewed and updated on a regular basis. Most organisations will aim to review them yearly.

In order for procedures to be effective, they must be sensible and easy to understand. Personnel should be given access to the procedures and trained on the most important aspects of them.

8.2 Standard operating procedures (SOPs)

Standard operating procedures (SOPs) give guidance on process actions and protocol. Some of the procedures that need to be considered are:

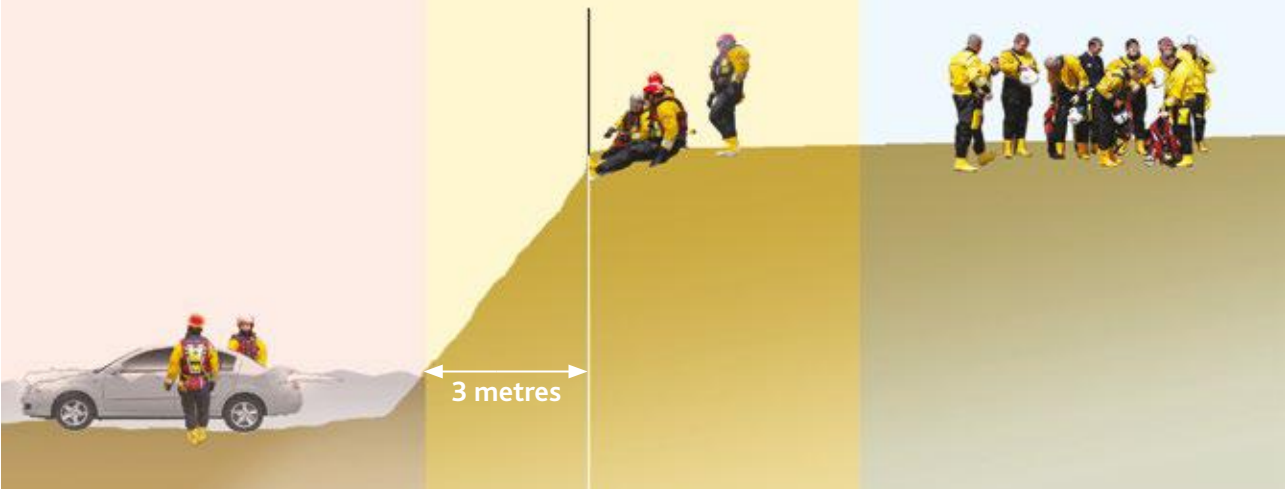
- dealing with hazards
- operation of machinery.

An example of a completed SOP and a SOP template are shown in the supporting forms and documents section at the end of this guide.

Operating in a flood zone

There are three operational zones in relation to flood water:

HOT ZONE	WARM ZONE	COLD ZONE
<ul style="list-style-type: none"> • This is the area covered by the water and full water-rescue PPE is required. • Rescue options – row/go/tow rescues can be undertaken here. • This is the area of highest risk and is only for appropriately trained personnel. 	<ul style="list-style-type: none"> • This is the area 3 metres away from the water, or 3 metres from the top of any bank/slope down to the water's edge where there is a risk of falling in. • Full water rescue PPE for teams performing rescues. • Rescue options – talk/reach/throw rescues can be undertaken here. 3 metres is the generic rule. However, if conditions dictate, this area can be increased as appropriate (for example, if a long steep bank is present). 	<ul style="list-style-type: none"> • This is where incident command will be based, briefing and collating information. • Only suitably trained personnel can enter the other zones from here.



Unit 8: Operating procedures

Decontamination procedure

Hygiene

Appropriate PPE should always be used during water rescue situations. In addition to providing head/foot protection, water resistance and insulation, PPE can also help with protection from waterborne diseases.



Good personal hygiene is very important in helping to avoid contamination with waterborne diseases. Observing the following recommendations will help prevent such contamination:

- Protective clothing should always be worn.
- In, on or near water, ensure that all broken skin, cuts and abrasions are covered with a waterproof plaster or dressing before and throughout the task to be carried out.
- It is imperative to wash hands and face before rehydrating or eating.
- It is important that anyone working in, on or around water should wash their hands and face and any other area that may have been exposed to the water immediately they are finished working with the water.
- Anyone who has been immersed in water must shower at the earliest convenience.
- Soap and water may be used for washing down, and have antiseptic gels/wipes available that have anti-bacterial properties.
- It should be the responsibility of all individual team members to wash down properly after contact with water.



Fire and rescue decontamination equipment

Emergency action plans (EAPs)

By the nature of responding to flood incidents, things don't always go to plan. It is recommended to have contingency plans for various possible situations.

These could include:

- alternative recovery sites
- identified casualty drop-off points
- dealing with loss of communication
- machinery or equipment failure
- injury or illness to a flood rescuer/team member
- what first aid equipment is needed and who can give first aid
- how to get an injured person to hospital
- contact details for other emergency services/ relevant personnel.

Use of check cards

In order to develop an effective and standardised approach to responding to flood situations, the use of check cards as aide memoirs can really help with following set procedures. This can ensure that every member of the team and organisation understands the protocols to follow.

It is not intended that these are a substitute for regular training and exercising, but they can be used during training to familiarise themselves with the contents.

Some of the check cards that the RNLI produce cover areas such as:

- flood rescue cards
- casualty care cards
- briefing cards
- basic operator manuals (radio/GPS/direction finding).

It is important that the check cards are regularly reviewed and updated and information changes.



Examples of flood rescue and casualty care check cards

8.3 Briefing and debriefing models

Briefings must provide the essential items of information. This briefing may have the luxury of being in a building with a well-prepared briefing board, but it can equally be delivered in a flooded street.

Giving a SMEAC briefing

A briefing must be given concisely, clearly, confidently and in the correct sequence. It must provide the essential items of information including:

- what is to be done
- who is to do it
- how/where/when it will be done.

SMEAC is an acronym that breaks into the following headings:

S Situation

A brief description of what is happening/happened:

- Ground • Hazards • Weather • Event
- Other agencies

M Mission

What is the actual objective of the task?

The mission brief should be short, using simple language that everyone can understand:

- Our mission is ... • In order to ...

E Execution

Tasking: Assign jobs/roles and team allocation.

Equipment: The equipment required and allocated.

Limitations: The factors that may restrict options.

Emergency plan: The plan in the event of an emergency or non-standard operation:

- General outline • Grouping/tasks

A Administration

What administrative arrangements and logistic support have been put in place:

- Dress/PPE • Equipment • Food/water
- Medical • Transport
- Casualty routine/evacuation

C Command and communications

Issue and clarify call signs and radio frequencies and identify the chain of command and communication:

- Type • Call signs • Lost communications
- Ops normal • Confirmation of understanding
- Questions

Post-incident assessment

A key element of organisational risk management is the timely and effective assessment of incidents and accidents. Incidents and accidents should be investigated to determine causality. Organisations should employ structured methods to identify the causes of failures and to implement lessons and changes that may prevent reoccurrences, such as:

- near misses
- accident reports
- lessons learned.

Incident debriefing

The power of any debrief should never be, but often is, underestimated.

Debriefing helps us to:

- ensure the welfare of our team at the end of any service, training or exercise
- ensure the equipment is accounted for, operationally ready or defect reported
- ensure any lessons learned from the event are captured
- develop the team involved to perform even better next time.



8.4 Rotas

In order to provide an efficient flood rescue service it is vital that there is availability of personnel to respond to an incident at short notice during different times of the day and that the flood rescue service has adequate and trained personnel.

It is up to the organisation to have an appropriate system in place to identify this availability.

The best way to manage this is through a rota system. This rota could be filled in on a weekly basis that will allow identification of any short comings and provide any necessary contingency plans.

The flood rescue service should consider having the ability to mobilise more personnel should the situation escalate, and/or if the duration of the floods is prolonged.

8.5 Service limitations

It is vital that there is an understanding of the limitations of providing a flood rescue service. This can be based on a number of factors. Some of the factors to take into consideration are:

- deteriorating weather conditions
- likely duration of service
- visibility and onset of darkness
- capabilities and competence of the flood rescue team
- capabilities of equipment
- correct equipment availability (boats, PPE, specialist equipment)
- on-scene hazards (risk over benefit).

It is recommended that guidelines are put in place that can be used for reference if there is any doubt as to whether the service should be tasked.

The welfare of flood responders should be considered before any tasking. Arrangements should be made for the duration of the service. These must include:

- food
- water
- shelter
- relief (rest periods).





Learning outcomes

- 9.1 Understand the importance of adequate service administration.
- 9.2 Understand the role of service paperwork.
- 9.3 Understand why lessons learned help develop a service.

9.1 What is service administration

The delivery of a flood rescue service will require a certain amount of administration. From an operational perspective, it is important to collect data on the amount of incidents that your organisation will deal with, and what type they are.

This is to gain an understanding of the kind of work you can expect to be involved in and enable you to make sure they have the appropriate equipment, training and procedures in place to assist them.

It is also important to know roughly how many incidents you are dealing with, so that you can make sure you have the correct amount of assets in the right areas. The way that people use the sea can change over time, and collecting data can help you monitor this.

The information you collect can also be used for publicity purposes. You may wish to inform the public of specific dangers that you find your organisation deals with on a regular basis, or publicise the fact that you have dealt with a certain number of incidents this year. Collecting data will allow you to do this.

9.2 Information and incident logs

Incident information

Incident data is collected from flood responders through an electronic return, and on paper incident forms completed by the responding teams. The returns are entered, processed, checked and validated at RNLI Headquarters. This incident data provides the basis for the statistics provided in the *Operational Statistics Report*, which the RNLI produces every year.

Key statistics by the flood rescue service include number of tasks, lives saved, people rescued, type of incident and more.

9.3 Lessons learned

It is important that a flood rescue service is continually looking for ways to improve its safety and ways of operating. One way of doing this is regularly keeping people informed of any safety issues or lessons learned.

A lesson learned is knowledge or understanding gained by experience. The experience may be positive, as in a successful test or mission, or negative, as in a mishap or failure.

A lesson must be:

- **significant** – it has a real or assumed impact on operations
- **valid** – it is factually and technically correct
- **applicable** – it identifies a specific design, process, or decision that reduces or eliminates the potential for failures and mishaps, or reinforces a positive result.

Conclusion

This guide has been designed as an aid to the implementation of a flood rescue service.

Every organisation is different in terms of needs, resources and goals. The guide can be adapted to suit individual needs as required.

Supporting forms and documentation

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The blank templates on the following pages can be supplied as electronic files.

Flood Rescue Service Implementation Risk Assessment



Key terms explained	
Hazard	Something that can cause harm
Risk	Possibility of the hazard causing injury multiplied by the severity of the injury
Control measure	A safety system that is put in place to reduce the risk of injury
Risk assessment details	
Location	
Type of risk assessment	
Name of risk assessor(s)	
Date of risk assessment	
	Suggested review date

Possibility

3 High possibility	3 Medium Risk	6 High Risk	9 Very High Risk
2 Medium possibility	2 Low Risk	4 Medium Risk	6 High Risk
1 Low possibility	1 Very Low Risk	2 Low Risk	3 Medium Risk
	1 Minor	2 Major	3 Fatal

Severity

Hazard	Who is at risk	Initial risk (before control measures)		Control measures already in place	Additional Control Measures	Remaining risk (after control measures)	
		Possibility	Risk			Possibility	Risk
		Possibility	Risk			Possibility	Risk
		Severity				Severity	
		Possibility	Risk			Possibility	Risk
		Severity				Severity	
		Possibility	Risk			Possibility	Risk
		Severity				Severity	
		Possibility	Risk			Possibility	Risk
		Severity				Severity	

Flood Rescue Service Implementation Risk Assessment



Key terms explained	
Hazard	Something that can cause harm
Risk	Possibility of the hazard causing injury multiplied by the severity of the injury
Control measure	A safety system that is put in place to reduce the risk of injury
Risk assessment details	
Location	River Awe (Identified training venue)
Type of risk assessment	Operational deployment
Name of risk assessor(s)	John Smith
Date of risk assessment	15/01/16
	Suggested review date 15/01/17

Possibility	3 High possibility	3 Medium Risk	6 High Risk	9 Very High Risk
	2 Medium possibility	2 Low Risk	4 Medium Risk	6 High Risk
	1 Low possibility	1 Very Low Risk	2 Low Risk	3 Medium Risk
		1 Minor	2 Major	3 Fatal

Severity

Hazard	Who is at risk	Initial risk (before control measures)		Control measures already in place	Additional Control Measures	Remaining risk (after control measures)	
		Possibility	Risk			Possibility	Risk
Drowning	Flood responders	3	9	Flood PPE to be worn. Conduct a safety briefing to all flood rescuers. Brief/Rebrief on emergency signals – hand/sound. Downstream backup in place. Maintain situational awareness of any new hazards forming and report them to team.	Create and follow SOPs (Standard Operating Procedures) for flood rescue	2	4
		3				2	
Slippery and/or uneven surfaces	Flood responders	3	6	Flood PPE to be worn. Conduct a safety briefing to all. Follow SOPs. Clear spacing between individuals when transiting. Awareness of any hazards and report hazards to all team members. Instruction on carrying equipment.		2	2
		2				1	
Accidental falling into water	Flood responders	3	9	Flood PPE to be worn. Brief/Rebrief on emergency signals – hand/sound. Downstream back up in place. Awareness of any new hazards forming and report them to training. Ensure flood rescuers are competent and in date in. Flood Rescue skills.		2	4
		3				2	
		Possibility	Risk			Possibility	Risk
		Severity	Severity			Severity	Severity

Competence training (CoBT) development plan example

Flood Rescue Team Member Development Plan			
Activity 1	Safety, Health and Environment	Sub-units	Intervals
Unit 1.1	Personal Protective Equipment	-1	3 years
Unit 1.2	Manual Handling	-1	3 years
Unit 1.3	Hazardous Substances	-1	3 years
Unit 1.4 *	Driving RNLI Vehicles	-1	1 year
Unit 1.5	Personal Safety and Wellbeing	ALL	Current
Unit 1.6	Incident Reporting	-1	Current
Unit 1.7	Risk Assessment	-1	Current
Activity 6	Operational Communication	Sub-units	Intervals
Unit 6.1	Short Range Communications	-1	Current
Unit 6.4	TETRA	-1	Current
Activity 8	Clinical	Sub-units	Intervals
Unit 8.3	Casualty Care 3 Year Revalidation	ALL	3 years
Activity 13	Fitness Standards	Sub-units	Intervals
Unit 13.1	Aerobic Tests	-1	5 years
Unit 13.2	Strength Tests	-2	5 years
Activity 14	Behaviour, Commitment and Currency	Sub-units	Intervals
Unit 14.1	Behaviour and Commitment	-1	3 years
Activity 15	The Media	Sub-units	Intervals
Unit 15.1	Media Awareness	-1	3 years
Unit 15.2	Camera Operations	-1	3 years
Activity 16	Flood Rescue	Sub-units	Intervals
Unit 16.1	Flood First Responder	-1	3 years
Unit 16.2	Flood Water Rescue Technician	-1	3 years
Unit 16.3	Flood Water Rescue Boat Operator	-1	3 years
Unit 16.4	Annual Revalidation	-1	1 year
Unit 16.5 *	Flood Team Vehicle Driver	-1	Current
Activity 19	Qualifications for Audit	Sub-units	Intervals
Unit 19.1	Driving Licence	-2	Current

Unit 16.1-1

Flood First Responder (FFR)

C Operating in flood.

Assessment Guidelines

- i Scene risk assessment and planning.
 - Hazards.

Assessment Criteria: Identify hazards in your local area:

 - **Weirs**
 - **Locks**
 - **Flood prone areas, etc.**
- *Management.*
- Assessment Criteria: Explain the personnel, training, equipment, management model:
 - **When a hazard identified you should use the model to identify, any training needs, any special equipment needs, any personnel requirements for the equipment and any management needs to deal with the hazard.**
- *Assessing risk.*
- Assessment Criteria: Explain the flood rescue tasking risk assessment model:
 - **This is an aide memoire to help you carry out a dynamic risk assessment of a scene.**
- Assessment Criteria: Describe hazards and potential risks likely to be faced with:
 - **Debris**
 - **Fast moving water**
 - **Submerged obstacles**
 - **Missing drain covers**
 - **HazMat**
 - **Others presented by environment.**
- Assessment Criteria: Describe developing a plan to reduce risk:
 - **Using check cards as aid.**
- Assessment Criteria: Identify situations where you are not the appropriate rescue asset:
 - **As per team typing limitations, e.g. medical, animals.**
- *Operational Briefing.*
- Assessment Criteria: Describe the current operational briefing model:
 - **SMEAC briefing model.**
- *The four stages of a rescue plan.*
- Assessment Criteria: Describe the four stages of a rescue plan:
 - **LOCATE: find the casualty using search techniques. Identify if it is a rescue or recovery.**
 - **ACCESS: using the best plan to mitigate risk to the rescuer to get 'hands on' with the casualty.**
 - **STABILISE: using appropriate resources e.g. medical, get casualty out of the water.**
 - **TRANSPORT: describe the various ways of transporting the casualty e.g. stretcher, boat, helicopter.**

RNLI community lifesaving competence standards

Layout of a standard competence unit document:

The diagram shows a document layout for 'Unit 1.5-1 Personal Safety and Wellbeing'. It features a yellow header bar with the unit title. Below the header, the main content is organized into three columns: Skill Base, Knowledge Base, and Assessment Criteria. The Skill Base column contains two sub-sections: 'i Policies.' and 'ii Awareness.'. The Knowledge Base column contains three bullet points: 'Policies and process.', 'Safety.', and 'Identification.'. The Assessment Criteria column contains three bullet points: 'Identify the Safeguarding Policy.', 'Identify the process of reporting on any safeguarding issue.', and 'State why it is important to understand Safeguarding. Describe why it is important to ensure the welfare of children and vulnerable adults.', 'State who is classified as a child or vulnerable adult.', and 'Explain what a potentially reportable safeguarding issue is.'. A footer at the bottom left contains the text 'TP-COBT1-01 – Version 2.0 – January 2016'. Red circles with numbers 1 through 10 point to various elements: 1 (Unit title), 2 (Unit title), 3 (Unit title), 4 (Unit title), 5 (Unit title), 6 (Policies), 7 (Policies and process), 8 (Identify the Safeguarding Policy), 9 (Assessment Criteria), 10 (Footer).

The diagram shows a document layout for 'Unit 1.5-1 Personal Safety and Wellbeing'. It features a yellow header bar with the unit title. Below the header, the main content is organized into a single column: Assessment Guidelines. The Assessment Guidelines section contains two sub-sections: 'i Policies.' and 'ii Awareness.'. The 'i Policies.' section contains three bullet points: 'Policies and process.', 'RNLI Safeguarding policy', and 'Working with children and vulnerable adults guidelines'. The 'ii Awareness.' section contains three bullet points: 'Safety.', 'Best practice guidelines as described in the policy', and 'Legal responsibility of the organization and its people.'. A footer at the bottom left contains the text 'TP-COBT1-01 – Version 2.0 – January 2016'. Red circles with numbers 1 through 10 point to various elements: 1 (Unit title), 2 (Unit title), 3 (Unit title), 4 (Unit title), 5 (Unit title), 6 (Policies), 7 (Policies and process), 8 (Identify the Safeguarding Policy), 9 (Assessment Criteria), 10 (Footer).

Format and Contents of a unit: All Competence unit files contain the same fields, the items listed below are a reference to those highlighted on the example of the document for Unit 1.5-1, task 'a' shown on the previous page.

- 1 Unit number:**

This is the number identified in the development plan for operational roles. The number may be unique to one role or be listed in a number of development plans. The first number will always correspond to the number of the associated activity, the example shown indicates that the unit is associated with Activity 1; Safety, Health and Environment.
- 2 Sub-unit number:**

This is also the number identified in the development plan. In the example, the numeral 1 indicates that the information contained in the displayed unit is generic and is required by everyone needing the unit for their role. This number will appear on all unit files even when there are no additional sub-units.
- 3 Unit name:**

This is the specific unit of competency. The example indicates 'Personal Safety and Wellbeing'.
- 4 Task reference:**

Task references will always be a letter and they will always appear in alphabetic order. In the example 'a' is shown. Unit 1.5-1 also has additional tasks labelled b, c and d.
- 5 Task sub-title:**

The task sub-title indicates the specific topic within the context of the full unit. In the example this is 'Dealing with children and vulnerable adults'. Other topics within the sub unit relate to dealing with violence and conflict, mental health and wellbeing as well as personal protection.
- 6 Skill base:**

This identifies the actual skills required. In the example, the skills requested relate to the understanding of policies and awareness relating to children and vulnerable adults. Each skill base statement is identified by a Roman Numeral, i, ii, iii, iv, v etc.
- 7 Knowledge base:**

A specific sub-portion of the unit that details the knowledge required to achieve the skill. Generally actions or procedures. In the example, specific knowledge of policies and processes, safety and identification will be required to achieve competence.

8

Assessment criteria:

This details how the unit will be trained and assessed for competence. Individuals will be required to meet one of the following five states of competence.

Identify:	The process of recognising something and understanding its existence / location.
State:	List what is requested, a definitive and concise answer, generally objective.
Describe:	To give a simple overview of the defined item / process.
Explain:	To give a clear account including causes and reasons.
Demonstrate:	To practically complete the skill or method using an object, (Competence shown through knowledge, attitude, ability and appreciation of the risks and benefits).

9

Assessment guidelines:

In terms of document structure, those that have access to the assessor guidelines will always find these contained on the page following the page containing the Skill, Knowledge and Assessment Criteria fields and will display only the guidelines relating to the previous page.

The skill and knowledge statements along with the assessment criteria will be used as a reference for the Assessor. They are displayed in grey italicised print and will be followed immediately by the associated guidelines.

The assessor guidelines, whilst not always stating the answer, gives the trainer and or assessor guidance on what to measure success by or reference to.

10

Version control:

Version control is done centrally. The most current and approved published document will be available on the database and published with the version data here.

Specialist Criteria:

Criteria that is note worthy due to its specific nature, such as fitness testing or location / equipment specific criteria, will be identified in green italic writing and will only apply to roles identified in the document and as such applied as a competence standard.

Standard operating procedure template

STANDARD OPERATING PROCEDURE					
<i>(Insert photo here)</i>			SOP Title		
Validation		Objective			
Prepared by					
Validated by					
ID Number					
Last updated					
Review date					
Pages					
Reference Documentation		Checklist			a
Hazards					
Safety, Health and Environment					




--	--

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Standard operating procedure example

RNLI STANDARD OPERATING PROCEDURE					
		RS3 Rescue Sled (Unpowered Watercraft)			
Validation			Objective		
Prepared by	Operations Manager (Flood Response)		To ensure the safe and appropriate use of the Rescue Sled.		
Validated by	Lifesaving Services Manager				
ID Number	FR-SOP-16.1-12				
Last updated	April 2016				
Review date	Annually				
Pages	2				
Reference Documentation			Checklist		
CoBT 1 Unit 16.1k			SOP communicated and understood by all		
Flood Water Rescue Manual TP			Appropriate PPE identified/specified		
Hazards					
Capsize			Loss of control/steerage		
Safety, Health and Environment					
 Caution	 Protective clothing must be worn				

Line Attachment

If attaching lines, each line must be connected to two strong points on the sled.



A proper assessment must be carried out to establish:

- if the sled is the most appropriate craft for the task based on depth, speed, and skill level/number of personnel
- whether it should be used manned or un-manned
- whether the sled should be tethered (2 or 4 point).

Use

For wading rescues, tethered rescues or paddle rescues. Maximum 3 persons capacity (including rescuers).

Inflation

Inflate both the deck and sponson chambers until the relief valve operates, to obtain the correct pressure. **If available, Fire service breathing apparatus cylinders can be used for inflation.**

The sled should not be used by a single operator, un-tethered in moving water (with the exception of training evolutions to understand craft capability and limitations).

Flood rescue incident report template

Flood Rescue Incident Report Form

General Information	
Day (Circle): Monday / Tuesday / Wednesday / Thursday / Friday / Saturday / Sunday	
Date: Day / Month / Year Time: Special Holiday: Yes / No	
Location: <input type="checkbox"/> Coastal <input type="checkbox"/> Inland (<input type="checkbox"/> Urban <input type="checkbox"/> Rural)	
Coordinates: (name of town/grid reference)	
Weather conditions	Visibility
.....	<input type="checkbox"/> Very poor <input type="checkbox"/> Moderate <input type="checkbox"/> Good <input type="checkbox"/> Poor
Type of Search	
<input type="checkbox"/> Rescue <input type="checkbox"/> Recovery <input type="checkbox"/> Hasty search <input type="checkbox"/> Primary search <input type="checkbox"/> Secondary search	
Injuries	Cause of Incident
<input type="checkbox"/> Fatal <input type="checkbox"/> Serious <input type="checkbox"/> Minor <input type="checkbox"/> No injuries	<input type="checkbox"/> Trapped (water levels) <input type="checkbox"/> Unable to evacuate <input type="checkbox"/> Adverse weather conditions <input type="checkbox"/> Machine/equipment problems Other.....
Number of casualties:	

Incident Details Please explain what happened:

Casualty Details 1: (Complete for each casualty – if more than one complete on the 2 nd page)			
Name:	Gender:	<input type="checkbox"/> Female	<input type="checkbox"/> Male
Home Town:	Age:	<input type="checkbox"/> Conscious	<input type="checkbox"/> Unconscious
Outcome	<input type="checkbox"/> Conscious walking	<input type="checkbox"/> Conscious hospital	CPR given? <input type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> Dead at scene	<input type="checkbox"/> Unconscious hospital	

Casualty 2 Details			
Name:	Gender: <input type="checkbox"/> Female <input type="checkbox"/> Male		
Home Town:	Age: <input type="checkbox"/> Conscious <input type="checkbox"/> Unconscious		
Outcome	<input type="checkbox"/> Conscious walking	<input type="checkbox"/> Conscious hospital	CPR given? <input type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> Dead at scene	<input type="checkbox"/> Unconscious hospital	

Casualty 3 Details			
Name:	Gender: <input type="checkbox"/> Female <input type="checkbox"/> Male		
Home Town:	Age: <input type="checkbox"/> Conscious <input type="checkbox"/> Unconscious		
Outcome	<input type="checkbox"/> Conscious walking	<input type="checkbox"/> Conscious hospital	CPR given? <input type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> Dead at scene	<input type="checkbox"/> Unconscious hospital	

Casualty 4 Details			
Name:	Gender: <input type="checkbox"/> Female <input type="checkbox"/> Male		
Home Town:	Age: <input type="checkbox"/> Conscious <input type="checkbox"/> Unconscious		
Outcome	<input type="checkbox"/> Conscious walking	<input type="checkbox"/> Conscious hospital	CPR given? <input type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> Dead at scene	<input type="checkbox"/> Unconscious hospital	

Casualty Details 5			
Name:	Gender: <input type="checkbox"/> Female <input type="checkbox"/> Male		
Home Town:	Age: <input type="checkbox"/> Conscious <input type="checkbox"/> Unconscious		
Outcome	<input type="checkbox"/> Conscious walking	<input type="checkbox"/> Conscious hospital	CPR given? <input type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> Dead at scene	<input type="checkbox"/> Unconscious hospital	

Casualty Details 6			
Name:	Gender: <input type="checkbox"/> Female <input type="checkbox"/> Male		
Home Town:	Age: <input type="checkbox"/> Conscious <input type="checkbox"/> Unconscious		
Outcome	<input type="checkbox"/> Conscious walking	<input type="checkbox"/> Conscious hospital	CPR given? <input type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> Dead at scene	<input type="checkbox"/> Unconscious hospital	

Casualty Details 7			
Name:	Gender: <input type="checkbox"/> Female <input type="checkbox"/> Male		
Home Town:	Age: <input type="checkbox"/> Conscious <input type="checkbox"/> Unconscious		
Outcome	<input type="checkbox"/> Conscious walking	<input type="checkbox"/> Conscious hospital	CPR given? <input type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> Dead at scene	<input type="checkbox"/> Unconscious hospital	

Flood rescue incident report guidance notes

The incident report form should be used to record any incidents that the flood rescue organisation responds to. The following information needs to be recorded:

- day, date and time, and write down if it is a special holiday (write the time in 24-hour format)
- location of incident
- weather
- cause of incident – provide grid reference if available and name of location
- what activity the casualty was doing prior to the incident
- cause of the incident and method of rescue
- any injuries
- a summary of the incident detail
- all casualties' details – including any treatment given.

For each incident, fill in a new form (please complete in pen).

The form is only intended as a guide and the organisation can adapt it to individual requirements. The following website gives some guidance on some of the information that could be included:

nationalwatersafety.org.uk/member/projects/info/wg0510_waid3.pdf

SMEAC briefing template

SITUATION:

- Ground:
- Hazards:
- Weather:
- Other agencies:
- Event:

S

MISSION:

- Our mission is:
- In order to:

M

EXECUTION:

- General outline:
- Grouping / Tasks:
- Emergency Plan:

E

ADMINISTRATION:

- Dress:
- Equipment:
- Food / Water:
- Medical:
- Transport:
- Casualty routine
/ Evacuation:

A

COMMAND AND COMMUNICATION:

- Type:
- Call signs:
- Lost comms:
- Frequency/Talkgroup:
- Ops normal:
- Confirmation of understanding:
- Questions?

C

Defra: Department for Environment Food & Rural Affairs

EAPs: Emergency action plans

FRS: Fire and Rescue Service

FWRBO: Flood water rescue boat operator

FWRT: Flood water rescue technician

GPS: Global positioning system

IC: Incident commander

ICS: Incident command system

INSARAG: International Search and Rescue Advisory Group

MCA: Maritime and Coastguard Agency

MOU: Memorandum of understanding

OCHA: Office for the Coordination of Humanitarian Affairs (United Nations)

PFD: Personal flotation device

PPE: Personal protective equipment

RNLI: Royal National Lifeboat Institution

SAR: Search and rescue

SOPs: Standard operating procedures

UN: United Nations

WHO: World Health Organization

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