

Community Volunteer
Training Guides

FLOOD Risk Awareness Guidance

Version 2013 07



Contents

Chapter 1 - Introduction

- 1.1 The Purpose of this Handbook
- 1.2 Community Resilience
- 1.3 Flood Plans
- 1.4 Who is this Guidance For?

Chapter 2 - Risk Awareness

- 2.1 Assessing Risk
- 2.2 Your Responsibility to Others
- 2.3 The Emergency Services

Chapter 3 - The Dangers of Flood Water

- 3.1 Flood Water
- 3.2 Drowning
- 3.3 Submerged Hazards
- 3.4 Emergency Exit Routes
- 3.5 Rivers Can be Dangerous
- 3.6 The Dangers of Contaminated Water
- 3.7 Equipment and Sand Bags
- 3.8 The Dangers of Unblocking Drains
- 3.9 Electricity and Flood Water
- 3.10 Gas and Flood Water
- 3.11 Mould

Chapter 4 - Personal Safety

- 4.1 Safe Working Practices
- 4.2 Communications
- 4.3 Safety Equipment
- 4.4 Hypothermia
- 4.5 Slips, Trips and Falls
- 4.6 Vulnerable Structures
- 4.7 Falling Hazards
- 4.8 Hostile Situations
- 4.9 Animals and Livestock
- 4.10 Remain Aware
- 4.11 Alcohol

Chapter 5 - Flooding and Public Roads

- 5.1 Traffic
- 5.2 Vehicles and Machinery
- 5.3 Flood Warning Signs and Road Closures
- 5.4 Driving
- 5.5 Driving in Flood Water

Developed By:



Introduction

1.1 The Purpose of this Handbook

The overall aim of this handbook is to provide you with information that will help you carry out your role as a community volunteer in a safe and responsible way.

Guidance for Volunteers sets out to raise your awareness and understanding of potential risks both to yourself and others before, during and after a flood event and to provide guidance on how to minimise exposure to those risks.

Key point:
Your first priority is your own safety and of others around you.

It is hoped that you will be better prepared to provide worthwhile support and guidance to your community when called upon to do so, without compromising your wellbeing or that of those you intend to assist.

1.2 Community Resilience

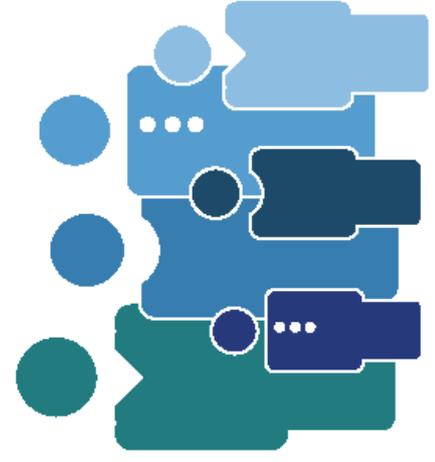
Community Resilience is defined by the Cabinet Office as;

“communities using local resources and knowledge to help themselves during an emergency in a way that complements the local emergency services”¹.

Chapter 6 - Other Important Considerations

- 6.1 *Managing Sensitive Information*
- 6.2 *Tourists and Visitors*
- 6.3 *The Press and the Media*
- 6.4 *Criminal Activity* -
- 6.5 *Property Protection Products*
- 6.6 *Door-to-Door Information Distribution*
- 6.7 *Test Exercises*

References and Disclaimer - 47



1.3 Flood Plans

The flood plan is a formal account of information and procedures to help prepare for flooding and determine its response to a flood event. A flood plan may be produced for a community, business or household. The overall aim of the flood plan is, where possible, to help reduce the risk of harm to persons and damage to property. A flood plan will not remove the risk of flooding but being prepared may help reduce the impacts and assist with the recovery process.

Working together as a community through a flood plan can have many benefits:

- Provide coordination, support and guidance to the community ahead of the arrival of the Emergency Services
- Help share local knowledge during a flood event to assist the Emergency Services
- Help relay local knowledge, concerns and issues to relevant authorities and utilities before and following a flood event

This guidance is intended to stand alongside your flood plan. Your flood plan outlines what you will do during a flood. This guidance provides general information to help you minimise the risk of harm to yourself and others while you carry out your flood plan.

1.4 Who is this Guidance For?

This guidance is intended for any Town or Parish Council, community group or business that is planning ahead of a flood event. While the focus is upon community volunteers, this guidance is equally relevant to individuals and households that may be considered at risk of flooding.

An awareness of the risks you may face during a flood and the basic principles of safety and wellbeing apply to everyone.

Risk Awareness

2.1 Assessing Risk

It is not always easy to assess the level of risk you may face in advance of a flood event. Firstly, it is not possible to foresee all eventualities and secondly, everyone has different levels of capability.

- You are encouraged to continually assess risk as you carry out your role as a community volunteer. Your safety is of paramount importance.
- Please remember that you are not part of the paid Emergency Services and you should not place yourself in danger in any way.

2.2 Your Responsibility to Others

The fact that you have volunteered as a community volunteer suggests you have good intentions to support and assist your community. However, in certain situations you may not be the right person to provide assistance or advice to others.

- There are limits to your skills, knowledge and training. In some situations the most responsible course of action may be to defer providing assistance directly and seeking support from a trained professional.
- Do not put the safety and wellbeing of others at risk through your own actions.

2.3 The Emergency Services

During a flood event you should always follow the advice and guidance of the Emergency Services. Do not attempt to enter areas that have been cordoned off by the Emergency Services.

- If you are told by the Emergency Services to evacuate from an area you should follow that advice.

Remember that your role is to assist the community, not to carry out the job of the Emergency Services. If the Emergency Services are at the scene tell them what they need to know and what your role is, and let them proceed unhindered.

Key point:

Always assess the risks to yourself and others before undertaking any activities as a volunteer.

The Dangers of Flood Water

3.1 Flood Water

A flood can be defined as “any case where land not normally covered by water becomes covered by water” (Flood and Water Management Act 2010, p1).

You should be able to carry out your role as a community volunteer without the need to enter flood waters.

Remember, flood water poses a

significant risk to your safety. It is important that you assess the risks you may face at all times.

- Avoid walking or driving through flood water.
- Leave certain activities to members of the emergency services who are trained and equipped to work in these conditions.

Key point:

Avoid walking through flood water.
Avoid being cut off by rising flood water.
Use a stout stick to probe shallow water.

3.2 Drowning

A common misconception is that drowning can only occur in deep water such as a main river. However, a person could easily drown in just an inch of water. It is also worth bearing in mind that 15cm (6 inches)

of flowing water is all it takes to sweep an adult off their feet. And, if you fell over in such conditions, it is unlikely you would be able to stand up again.

3.3 Submerged Hazards

It is likely that flood water will carry mud and silt and even if it is just a few inches deep you will not be able to clearly see what lies beneath.

Manhole covers may be lifted or displaced by the pressure of water in drains. Many drain covers are actually designed to lift if the pressure within the drain gets to great. Uncovered drains and displaced lids present a significant trip hazard.

The power of flood water can carry large items of debris such as; rocks, branches and litter. Again, these submerged hazards pose a great risk to your safety.

Be alert to kerbs and steps which might be hidden by flood water.

- Always ensure you can see the surface you are walking on.
- A stout stick can be used as an aid to balance and to probe shallow water.²

3.4 Emergency Exit Routes

Flooding may occur long after rainfall has ceased and conditions may change unexpectedly. There may be a lag between rainfall and peak flood levels.

- Be mindful to look and listen and continually assess the situation as it develops around you.
- Avoid being trapped or cut off if flood waters rise unexpectedly. Always consider an exit route and a safe location to retreat to if necessary.

3.5 Rivers Can be Dangerous

Even when there is not a flood, rivers, streams, lakes and reservoirs can be dangerous under normal conditions:

- “Water may look harmless, but it can hide strong flows. Water can be deep and powerful, especially near weirs and sluices. Always be aware of the risk of possible injury or even death when around water” (Environment Agency, 2013, p10).
- Do not attempt to enter deep water.

Key point:

Wash your hands after contact with flood water, especially before eating or drinking.

3.6 The Dangers of Contaminated Water

Urban flood water typically carries 20 to 30 different diseases, especially if drains have back-washed and if sewerage is present.³

In rural areas contamination is more likely to come from agricultural chemicals and animal waste.

There are two types of leptospirosis infection that can affect people in the UK:

1. Weil’s disease is a serious and sometimes fatal infection that is transmitted to humans by contact with urine from infected rats.⁴

2. The Harjo form of leptospirosis is transmitted from cattle to humans.⁴

People exposed to rats, rat or cattle urine or to foetal fluids from cattle are at highest risk. Farmers are the main

group affected by this disease but anyone in contact with canal and river water are also potentially at risk.²

- It is important to cover all cuts and broken skin with waterproof plasters before and during you duties. Protecting your hands can prevent infection.
- Wash your hands in clean fresh water after handling any animal or coming into contact with flood water and always before eating, drinking or smoking. Leptospirosis is much less severe if treated promptly.
- Carry an antibacterial hand wash and treat your hands regularly if you come into contact with flood water.
- Seek medical advice immediately if you or anyone else is affected by diarrhoea, fever or abdominal pain.

3.7 Equipment and Sandbags

After a flood it is possible that equipment such as footwear, high visibility clothing, gloves and sandbags may be contaminated with sewage and pollutants.

- If you believe items have been contaminated in any way make sure they are washed thoroughly before they are re-used.
- Ensure any potentially contaminated items are stored in such a way that any contamination cannot spread to other items and that they cannot be used until they have been thoroughly cleaned.
- If you believe items have been contaminated and cannot be cleaned to an acceptable standard you might consider disposal of the items. You are advised to contact your local waste collection authority for advice on safe and proper disposal.

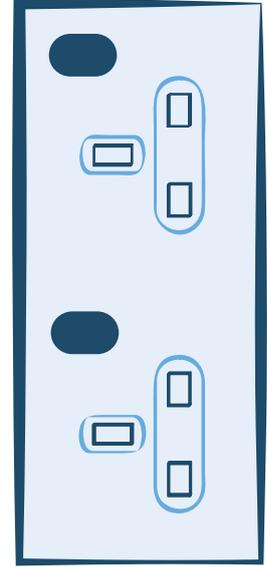
3.8 The Dangers of Unblocking Drains

You could place yourself at risk by attempting to unblock a drain during a flood. The effect of suction when a drain is unblocked could cause you to become trapped. Also, you could inadvertently cause damage to the drain, introduce material that could contribute to the blocking or simply cause the blockage to shift further along the drainage system.

- Do not attempt to unblock drains during a flood or remove drain covers at any time unless you have been adequately trained or authorised to do so.
- Refer any blocked drains to the appropriate local authority.

3.9 Electricity and Flood Water

- If a home or business has been flooded then electrical hazards may exist long after the water dissipates.
- Look out for fallen power lines.
 - Never enter flooded areas or touch electrical equipment if the ground is wet unless you are certain the power is off.⁵
 - Do not turn the power back on until it has been inspected by a qualified electrician.⁵
 - Do not turn on any electrical equipment if it has been underwater until it has been inspected by a qualified electrician. These items may work and appear safe but once they have been underwater, they could cause electrocution or fire.⁵



3.10 Gas and Flood Water

- Flood water can damage the controls of gas appliances. Safety features can become blocked, even if the gas controls appear to operate properly.
- If you suspect a gas leak; don't light a match, avoid using any electrical appliance, do not turn lights on or off, or use a phone as these electrical items may produce a spark.
 - Check for gas leaks. If you smell gas or hear gas escaping, turn off the main gas valve, open windows, leave the area immediately, report the leak when safe to do so. Ensure any works are carried out by a qualified gas engineer.

3.11 Mould

- After a flood mould can grow in damp properties. Mould can be a hazard for babies, people with allergies, the elderly and asthmatics.
- Avoid entering properties that have been flooded if you or someone else has any respiratory problems or could be at risk.

Personal Safety

4.1 Safe Working Practices

Whatever roles or duties you are performing you are advised to never work in isolation.

- Community volunteers should always work in pairs or small groups and maintain visual contact at all times.
- When you arrive on the scene your first objective should be to accompany another community volunteer or join an existing group.

Key point:

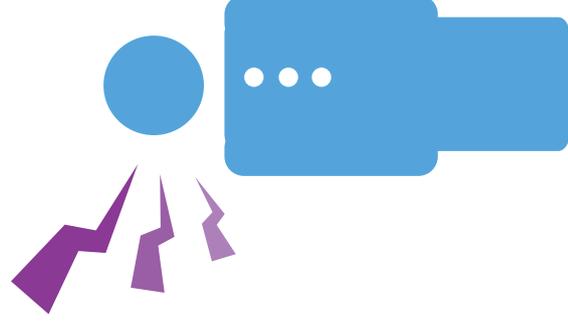
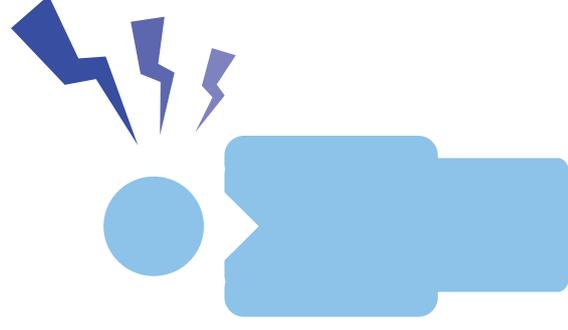
Never work alone.
Always work in pairs or small groups.
Always remain in clear view of others.
Always wear high visibility clothing.

4.2 Communications

A flooding event may be associated with poor weather conditions. It may be dark, with strong winds and heavy rain. In these situations signal strengths for mobile phones may be weak and you may not receive a signal at all. Do not rely upon your mobile phone as your primary source of communication.

- Maintain visual contact with another community volunteer or member of the Emergency Services at all times.
- Inform someone else where you are and what you will be doing before you start your activities. Contact your group coordinator and let them know.

Even a simple device such as a safety whistle can be a good form of communication to summon help if you are in danger or come across an emergency situation.



4.3 Safety Equipment

Your health and safety should be your main priority at all times.

It is recommended that you wear a high visibility jacket (or suitable equivalent, such as a high visibility vest) at all times, day or night, when undertaking any outdoor activities as a community volunteer.

Your high visibility jacket should be worn on the outside of your clothing and securely fastened at the front to prevent the jacket flapping in the wind or catching on anything and placing you at risk.

The purpose of the high visibility jacket is to:

- a. help you to be seen in low light conditions
- b. Identify you as a community volunteer

Ensure you are visible to others at all times. Use a torch when working in the dark or low light conditions.

4.4 Hypothermia

Hypothermia is caused by getting too cold. It is a condition in which normal body temperature of 37°C (98.6°F) drops below 35°C (95°F). This is most common in cold environments, and the risk is increased if you are not wearing enough layers to keep warm, or do not have your head covered (the largest proportion of body heat is lost through the head).

Hypothermia is also possible in mild weather. For example, if you get soaked in a rain shower and do not dry off properly soon afterwards, particularly if there is also a cool wind. The water evaporating from your skin reduces your body temperature.²

If the weather is cold, make sure you're dressed appropriately before you go outside. Layers of clothing trap air, which helps to keep you warm (tightly woven and waterproof clothes are best). Drink plenty of fluids and hot drinks (not alcohol) and eat regular, balanced meals to give you energy.²

- Cease your activities as a community volunteer immediately if you start to show signs of hypothermia. Seek medical advice if necessary or call 999.
- Listen to the advice of others, as they may see you showing signs of hypothermia before you realise.

Key point:

Be alert for signs of hypothermia in yourself and others.

Be alert for the following signs of hypothermia in yourself and others:

Signs of mild hypothermia⁶

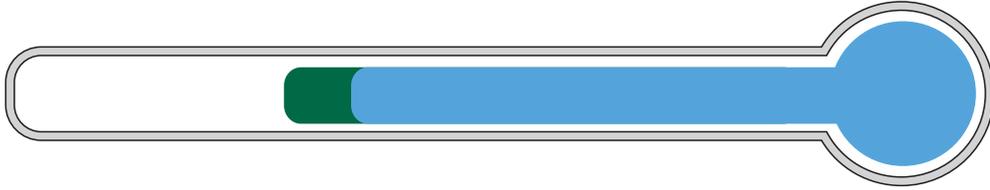
- ◇ Shivering
- ◇ Feeling cold
- ◇ Low energy
- ◇ Cold, pale skin

Signs of moderate hypothermia⁶

- ◇ Violent, uncontrollable shivering
- ◇ Being unable to think or pay attention
- ◇ Confusion (some people don't realise they are affected)
- ◇ Loss of judgement and reasoning
- ◇ Difficulty moving around or stumbling (weakness)
- ◇ Fumbling hands and loss of coordination
- ◇ Drowsiness
- ◇ Slurred speech
- ◇ Listlessness and indifference
- ◇ Slow, shallow breathing and a weak pulse

Signs of severe hypothermia⁶

- ◇ Loss of control of hands, feet, and limbs
- ◇ Uncontrollable shivering that suddenly stops
- ◇ Unconsciousness
- ◇ Shallow or no breathing
- ◇ Weak, irregular or no pulse
- ◇ Stiff muscles
- ◇ Dilated pupils



4.5 Slips, Trips and Falls

- During and after a flood event the area around you will be wet, slippery and probably contain mud and debris.
- Take extra care when walking on wet, slippery or uneven ground. Avoid walking in these conditions if possible. Always wear sturdy, appropriate footwear.

4.6 Vulnerable Structures

- Do not underestimate the power of flood waters. Damage may be caused to buildings, roads, river banks and other structures making them unsafe.
- Avoid standing on or near anything that may be vulnerable to damage and collapse due to flood waters, for example; bridges and river banks when water levels are high.

Call the Emergency Services immediately on 999 if you think you or someone else shows signs of hypothermia.



4.7 Falling Hazards

- Flood events may be associated with stormy conditions with high wind speeds.
- You must continually assess the risk to yourself at all times.
 - Do not walk or stand beneath or close to trees or buildings during high winds.
 - If you believe weather conditions pose a threat to your safety and wellbeing do not proceed with your activities as a community volunteer and exit the area

4.9 Animals and Livestock

- Animals such as dogs and farm livestock may be dangerous and unpredictable in behaviour especially if under stress.
- Do not approach animals unless you consider it is safe to do so. If you are unsure, contact a member of the emergency services or the Dog Warden.

4.10 Remain Aware

- Keep aware of yourself, your colleagues and your surroundings at all times.
- During an incident it easy to become “task-focussed” and concentrate so much on what you are doing that you forget
- about your own safety or that of others.
 - Stop your activities regularly to take the time to assess your own safety and that of others around you.

4.8 Hostile Situations

- When under stress people can become irrational and aggressive.²
- Always approach people in a civil, polite manner, clearly explaining your role and how you can help.
 - If they become aggressive in anyway, leave them alone and do not attempt to help unless approached and asked specifically
 - Do not inflame the situation by responding in a retaliatory manner. If they require emergency assistance contact the emergency services.

4.11 Alcohol

Flooding can occur at any time and without any prior warning. You could place yourself or others at greater risk if you have been drinking alcohol:

Remember, it is illegal to drive a vehicle while under the influence of alcohol.

Alcohol can impair your judgement and ability to make decisions.

Alcohol can lower your body temperature making you more vulnerable to hypothermia.

- Do not drink alcohol if you have received a flood alert and there is a possibility you may be required to carry out activities as a community volunteer.
- If you have been drinking you should not carry out any activities as a community volunteer.

Remember, even if you have stopped drinking, alcohol may remain in your system for some time afterwards and continue to have an effect on you.

The effects of alcohol differ according to your weight and sex.

Your body can take 1 hour to break down each unit of alcohol. There is approximately 2.8 units of alcohol in a pint (586ml) of strong beer (5%) and your body can take up to 3 hours to break it down.

Flooding and Public Roads

5.1 Traffic

Take extra care with regard to vehicles and machinery during flood events and at any time you are carrying out your role as a community volunteer.

the chance of aquaplaning and vehicles losing control and skidding off the road. Watch out for vehicles being driven excessively fast through floodwaters.

During a flood people may be distressed and distracted and may not be concentrating on their driving and the road ahead. Additionally, poor driving conditions and decreased visibility in bad weather will often exacerbate this problem. Mud, silt and standing water may increase

- Avoid walking or standing on or close to a road with passing traffic. Even on a pavement you may be vulnerable to being struck by a vehicle. Always stand a safe distance away from moving traffic.

5.2 Vehicles and Machinery

During a flood vehicles and heavy machinery such as road sweepers, diggers and trucks may be operating in the area.

- Be alert at all times and stand clear of any working vehicles or machinery.

5.3 Flood Warning Signs and Road Closures

Vehicles that continue to attempt to pass along roads that have already flooded can potentially pose a risk to themselves and others. Drivers could lose control of their vehicles under these difficult conditions. Also, vehicles passing through flood waters can cause displacement and push waves of water towards nearby properties and possibly exacerbate the problem of flooding.

The closing of roads falls under the responsibility of the Police.

- Do not place yourself at risk by attempting to stop traffic directly.

5.4 Driving

Take care when driving during or after heavy rainfall and especially when driving to or from a flood affected area.

- Be alert to the presence of standing water and the risk of aquaplaning which may cause you to lose control of your vehicle.
- Remember, the usual speed restrictions and laws still apply.

Key points:

Be aware of vehicles and machinery operating in the area.
Always drive at a safe and responsible speed.
Do not attempt to drive through flooded roads or fords.

5.5 Driving in Flood Water

Driving during periods of heavy rain and flooding can be dangerous. Nearly a third of all flood related deaths are by drowning in a vehicle.³ It only takes 60cm or 2 feet of standing water to float a vehicle. This includes 4x4s, vans and lorries. Your vehicle may be swept away or stranded. And, just 30cm or 1 foot of fast flowing water could be enough to move the average family car.³

Remember, it can be very difficult to judge the depth of standing water. Think about alternative routes and ways to get around.

- Do not attempt to drive through flooded roads or fords. Your engine may stall or become damaged causing you to be stranded. You may be at risk of drowning.
- Do not attempt to drive on any roads that have been closed by the Emergency Services.

- Make sure someone else knows your travel plans.
- You could become stranded if your engine cuts out while driving through flood water. Just an egg cupful of water in the combustion chamber could be enough to wreck an engine.
- Flood water, particularly sea water, can cause problems with the electrical systems of vehicles. The operation of wipers, lights and even air bags can be affected.³
- Do not attempt to recover a vehicle yourself if water has reached inside.

Other Important Considerations

6.1 Managing Sensitive Information

One of the key strengths of a flood plan or within additional community volunteer is your local knowledge. Through your activities you are encouraged to know your community.

- It is important you identify households and individuals requiring priority attention during a flood event such as; the elderly, less able, even families with young children.
- Information relating to individuals or specific households or businesses must not, under any circumstances, be passed onto any other persons. Such information is only to be shared with members of the Emergency Services during a flood event.

Some information on these vulnerable individuals may be stored within the community

6.2 Tourists and Visitors

- Tourists and holiday makers may be living within your local area. Their knowledge of the area may be limited and some may not speak or understand English.
- Do not assume everyone has understood your instructions. Some people may require extra guidance.

6.3 The Press and Media

A flood event may attract local and national press and media attention. Reporters may ask you to comment on the situation and ask for your personal reaction to the event.

- Be aware you may not know of all of the events unfolding within the area and it may not be possible for you to comment on the situation.
- You do not have to comment to the press or media especially if you feel uncomfortable or unsure of what to say. Direct members of the press or media to contact your group coordinator who will act as the designated spokesperson.
- Adopt a sensitive approach when communicating to the press or media as members of the community may have suffered damage to property, injury or even loss of life.

6.4 Criminal Activity

- Be alert to the possibility of criminal activity during or after a flood event. Individuals may take the opportunity to cause damage to property or take possessions from homes or businesses.
- If you witness such activity do not approach or tackle the individuals yourself but inform the Police when it is safe to do so.

6.5 Property Protection Products

Many households and businesses within the community may have their own property protection products such as flood gates and air brick guards.

- Do not attempt to install or activate these products on behalf of someone else unless you have received appropriate training and authorisation from the property owner.

These products may not be effective at protecting a property from flooding if they are not installed and activated correctly according to the guidelines set out by the manufacturer.

6.6 Door-to-door Information Distribution

One of your roles as a community volunteer may be to relay information to your community. To ensure more households receive the information a common approach is to hand out leaflets or newsletters door-to-door to each household directly. This can involve some issues of risk and courtesy to others:

- Wear a clean high visibility vest or jacket above your other clothing
- Never carry out your activities alone. Always work in pairs or small groups.
- Maintain visual contact with others
- Let someone else know what you will be doing, and where, before you start your activities
- Take extra care when crossing roads
- Do not put your hand through the letter box in case a dog, or other animal, attempts to bite you
- Always close any gates after you leave the premises or at least leave them as you found them
- Take extra care while walking on wet slippery surfaces such as tiled pathways
- Only carry out this type of activity in daylight conditions with good visibility

6.7 Test Exercises

The incidence of major flood events can be rare. With this in mind, it is important to conduct test exercises and repeat any training on a regular basis to ensure knowledge and skills are maintained.

References

Risk Awareness Guidance:

- ¹ Cabinet Office, Civil Contingencies Secretariat, website
- ² Environment Agency, “The Community Flood Warden Handbook”. Manley House, Kestrel Way, Sowton, Exeter EX2 7LQ.
- ³ The AA website, “Driving in floods and heavy rain”.
- ⁴ HSE, “Leptospirosis: Are you at risk?”, (INDG84(rev1) Reprinted 02/12).
- ⁵ Flood Sense. www.floodsense.co.uk/~flood-electricity-gas.
- ⁶ NHS Choices website.

Disclaimer

This guidance handbook has been produced by the Cornwall Community Flood Forum on a best endeavours basis, to assist community volunteers to carry out a role. The contents of this document have been developed after extensive consultation with community volunteers and other key partners. The Cornwall Community Flood Forum cannot be held accountable for any claim, accident or injury arising from its use.