



LONDON COLNEY PARISH COUNCIL

FLOOD EMERGENCY PLAN

JULY 2022

Revisions

Flood Emergency Plan July 2022
Flood Emergency Plan September 2017
Flood Emergency Plan January 2015
Flood Emergency Plan November 2014

Contents

1. INTRODUCTION.....	5
2. FLOOD WARNINGS:.....	6
2.1 How are residents and businesses warned?.....	6
2.2 Four warning codes.....	6
3. LEVEL OF RESPONSE:.....	8
4. AUTHORITIES INVOLVED:.....	9
5. AUTHORITIES RESPONSIBILITIES:.....	10
5.1 On receipt of a flood watch:.....	10
5.3 On receipt of a severe flood warning:.....	11
5.4 After flooding:.....	13
6. RECEPTION CENTRE:.....	14
7. FLOOD RISK AREAS:.....	15
8. SANDBAG PROVISION:.....	16
9. CONTACT AND COMMUNICATION LINKS:.....	17
10. APPENDIX A: Advice to the public from the Parish Council.....	18
11. APPENDIX B: Advice about the recovery phase after flooding.....	19
11.1 Cleaning Up.....	19
11.1.1 Useful Equipment.....	19
11.1.2 Basic Advice.....	19
11.1.3 If you are insured.....	19
11.1.4 Safety precautions.....	20
11.1.5 Mains services.....	20
11.1.6 Removing mud.....	20
11.1.7 Cleaning and disinfection.....	20
11.2 Drying Out.....	21
11.2.1 Step One: Remove standing water.....	21
11.2.2 Step Two: Dry the property.....	21
11.2.3 Security.....	21
11.2.4 Waste Disposal.....	21
11.3 Restoring Main Services.....	21
11.3.1 Electricity.....	21
11.3.2 Gas.....	21
11.3.3 Water.....	22
11.3.4 Sewers.....	22
11.4 Repairs.....	22
11.4.1 Brickwork.....	22
11.4.2 Brick fireplaces.....	23

11.5	Flooring Repairs	23
11.5.1	Chipboard and other flooring	23
11.5.2	Floor joists.....	23
11.6	Window and Kitchen Repairs.....	23
11.6.1	Glass and windows.....	23
11.7	Insulation and Plastering Repairs.....	24
11.7.1	Insulation.....	24
11.7.2	Kitchen	24
11.7.2	Plaster and dry linings.....	24
11.8	Structural/Wall/Wood Repairs	24
11.8.1	Structural damage.....	24
11.8.2	Walls.....	25
11.8.3	Wood.....	25
12.	Flood Map	26

1. INTRODUCTION:

The duty to protect property from flooding rests with the owners and occupiers of properties. It is not the parish or district council's responsibility to protect properties from flooding. The Parish Council will work with other agencies including St Albans District Council, The Environment Agency and Hertfordshire Fire and Rescue to help vulnerable people where they are unable to help themselves.

The following areas of London Colney are known to be prone to flooding with other places being identified

- 1.1 The largest areas of Waterside, Lowbell Lane, Willowside, have seen only limited improvement since the severe flooding of 2000, which involved considerable damage to homes and properties. Keeping the river clear and some dredging has helped. This is too infrequent to be of significant benefit.
- 1.2 Five Acres – homes flooded, and families moved to temporary. This is caused by lack of maintenance from the A10816 bypass. Drains are not able to cope with the sudden rush of water from the road above the properties.
- 1.3 London Colney High Street from Wellington Road to pedestrian lights are under water and impossible to walk on two pathways in several places on either side of the road. This again would seem to be lack of maintenance to drains.
- 1.4 Telford Road, Manor Road and Shenley Lane are all frequently under water and sometimes closed to traffic. Again, this is mainly a drainage problem. Some householders have installed flood gates and pumps to protect their property with some success. Sandbags are kept available.
- 1.5 Flood warnings are issued firstly by the Environment Agency and then passed down by a variety of means. Residents whose properties are at risk of flooding are encouraged to sign up to the flood warning service, which is delivered by automated phone message <https://www.gov.uk/sign-up-for-flood-warnings>
- 1.6 After the 2007 flooding the Pitt Review studied the effectiveness of sandbags and suggested that even if laid by trained staff, sandbags were likely to be less than 40% effective and much less if laid by the householder. The review recommended that the owner of premises should have in place other flood protection systems to protect their property and possessions. In the absence of other flood protection systems, the occupier may better spend their time by removing their possessions out of the flood risk area, e.g., by moving upstairs or to another premises.
- 1.7 Hertfordshire County Council is the Lead Local Flood Authority (LLFA) and manages the risk of local flooding in Hertfordshire. It's role is to develop a strategy where they monitor the local flood risk in the area, using the Environment Agency's flood maps to identify areas with a significant surface water flood risk and working with partners and residents to reduce flood risk where practically and economically feasible. More information about their role can be found at: <https://www.hertfordshire.gov.uk/services/recycling-waste-and-environment/water/managing-flood-risks.aspx>

2. FLOOD WARNINGS:

2.1 How are residents and businesses warned?

An early warning about a flood event is essential to enable a comprehensive emergency response from the relevant responding agencies and organisations. In England and Wales, the Environment Agency is responsible for issuing main river and coastal flood warnings.

The Environment Agency's target is to issue river and coastal flood warnings two hours before flooding starts, to enable people to take the necessary action to protect themselves and their properties.

Warnings are issued through a variety of means, such as: Parish Councils and the public by phone or text message, Environment Agency web site www.environment-agency.gov.uk

- AVM (Automatic Voice Messages)
- Flood line (telephone and advice service 0845 988 1188)

The Environment Agency provides information on river levels and the risk of flooding through the media on TV and Radio weather bulletins. When there is flooding in areas of particular risk, the Environment Agency can send a warning message direct to people at home or at work by telephone or fax using the Automatic Voice Messaging (AVM) system.

The public are encouraged to register for this service, which is free, the Environment Agency can program it to send warning messages automatically to a list of contact numbers (with 23 properties that receive extended direct warnings which means they are signed up via landline telephone numbers from the emergency service databases.

All types of telephone can receive these messages, including mobile phones (if the call is not answered the system will try twice more at 10-minute intervals), and the AVM system can give advance warning of flooding day and night.

The Environment Agency uses also Flood Wardens to alert the local community when a flood warning is issued. The flood warden is contacted directly by the Agency and passes the information on to neighbours. The principal areas of flooding in London Colney are:

- Burr Close Waterside (North)
- Lowbell Lane
- Waterside (South)
- Willowside
- Five Acres
- St Anne's Road/Shenley Lane
- High Street

If people want more information, the Floodline service enables the caller to listen to the recorded flood warning information or speak to an operator for general information and advice 24 hours a day.

2.2 Four warning codes

Generally, the Environment Agency uses some information to forecast the possibility of flooding from rivers and the sea using a set of four easily recognisable codes.

Each of the four codes indicates the level of danger associated with the warning and they show the risks of flooding from rivers or the sea.

- **Flood Watch:** Flooding is possible. Be aware! Be prepared! Watch out.
- **Flood Warning:** Flooding of homes, businesses and main roads is expected. Act now!
- **Severe Flood Warning:** Severe flooding is expected. Imminent danger to life and property. Act now!
- **All clear:** All clear is issued when flood watches or warnings are no longer in force. Flood water levels receding. Check all is safe to return. Seek advice.

They 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 before it.

Only watercourses classified as main rivers are currently covered by the flood warning codes and the River Colne is designated as a main river.

3. LEVEL OF RESPONSE:

The level of response from the authorities to a flooding incident will depend on what is flooded or is at risk of being flooded. There are different priority categories:

	Flooding Affected	Response
1	People	Action to protect life
2	Houses	Action to protect life and property
3	Roads	Action to protect life and property
4	Commercial property	Action to protect property
5	Gardens	No action

But there are other factors which may influence the level of a response. For example, the priority is likely to be given to people with a disability, the classification of roads may be used in prioritising responses to road flooding and the protection of commercial property may depend on the risk of environmental pollution from stored chemicals etc.

London Colney Parish Council's priorities are to look after elderly and disabled, and families with young people and to support the Emergency Services.

4. AUTHORITIES INVOLVED:

During a flood event several organisations may be involved in direct action. These different authorities are:

- Environment Agency
- Hertfordshire County Council
- St Albans District Council
- London Colney Parish Council
- Herts Police
- Herts Fire and Rescue Service
- Hertfordshire Highways
- UKPN (Electricity Network)
- National Grid Transco (gas supply)
- British Telecom (telecommunications)
- Three Valleys Water (water supply)

Note: It is each property owner's responsibility to protect their own property from flooding.

5. AUTHORITIES RESPONSIBILITIES:

When a flood warning is issued, there are various levels of danger, which are represented by the different codes. So, to understand the responsibilities of the organisations we must analyse them for each level as well as during the recovery phase of the incident.

5.1 On receipt of a flood watch:

When the Environment Agency issues a flood watch they will contact all Professional Partners and media contacts in the relevant area. They send a voice message to flood wardens and to residents who are registered on the AVM system:

Hertfordshire County Council-Emergency Planning	Note the flood watch
St Albans District Council	Note the flood watch
London Colney Parish Council	The Clerk must: <ul style="list-style-type: none"> • Keep the Chairman or Vice Chairman informed at the time. • Contact the Flood Wardens • Check that sand and bags are in the green sandbags box • Check with Environment Agency how the river is flowing up stream and if the level is beginning to drop
Flood Wardens	Must pass the information to their neighbours and help any elderly or disabled people
Police	Note the flood watch
Fire and Rescue service	Note the flood watch Must be aware
Hertfordshire Highways	Note the flood watch

5.2 On receipt of a flood warning:

When the Environment Agency issues a flood warning:

- They will contact all Professional Partners and media contacts in the relevant area.
- They send a voice message to anyone who has requested it and given them their contact details.

Hertfordshire County Council - Emergency Planning	Contact St Albans District Council
	Contact the Adult Care Services
	Hertfordshire Highways
	EPO on standby
St Albans District Council	Alert internal services within the district council
	Consider mobilising a rest centre
	May supply London Colney Parish Council with sandbags
	Monitor the situation in London Colney
London Colney Parish Council	The Clerk works with the Chairman to determine the parish council's response: <ul style="list-style-type: none"> • Take overall responsibilities for the Parish Council's response

	<ul style="list-style-type: none"> • Be kept informed and agree what little action the clerk and ground staff need to take in. • Ensure that all Parish Council resources, and services have been activated: supply sandbags, loan of tractor/trailer or boat to the fire services if necessary. • Liaise with St Albans District Council and other response organisations. • Attend post-incident multi-agency debriefing sessions
	<p>The Clerk:</p> <ul style="list-style-type: none"> • Keep the Chairman or Vice Chairman informed at the time. • Check if Chairman and ground staff can be on standby • Contact the Flood Wardens • Check that sand and bags are in the sandbags box • Check with Environment Agency how the river is flowing up stream and if the level is beginning to drop
Flood Wardens	Have to pass the information to their neighbours and help any elderly or disabled people
Herts Police	<ul style="list-style-type: none"> • Attend site • Identify appropriate location for a Tactical Control
Herts Fire and Rescue Service	<ul style="list-style-type: none"> • Have to be aware • Have to be on standby if somebody calls them • Have to be prepared
Hertfordshire Highways	<ul style="list-style-type: none"> • Note a flood warning in River Colne • Have to be ready to put flood warning signs • Should be aware to close the road if they are flooded and to deploy road closed • Signage to the scene

5.3 On receipt of a severe flood warning:

When the Environment Agency issues a severe flood warning:

- They will create and send e-mail and where applicable text messages to all Professional Partners and media contacts in the relevant area.
- They send a voice / text message to anyone who has requested it and given them their contact details.
- A back up telephone call may be made to Professional Partners to alert them to the situation and to offer any further information they may have.

Hertfordshire County Council-Emergency Planning	Contact St Albans District Council
	Contact Adult Care Services
	Contact Hertfordshire Highways
	Contact Education-School
	Send an EPO (Emergency Planning Officer) to the scene
St Albans District Council	Alert internal services
	Alert their Housing Department
	Open Reception Centre
	Send someone to London Colney to monitor the situation
	Provide sandbags to the Parish Council
London Colney Parish Council	The Clerk with the Chairman will <ul style="list-style-type: none"> • Take overall responsibilities for the Parish Council's response • Be kept informed and agree any action the Clerk and ground staff need to take. • Ensure that all Parish Council resources, and services have been activated: • Supply sandbags, loan of tractor/trailer or boat to the fire services if necessary. • Liaise with St Albans District Council and other responsible organisations. Attend post-incident multi-agency debriefing sessions
	The Clerk <ul style="list-style-type: none"> • Keep the Chairman or Vices Chairman informed at the time of both the situation and the staff response • Contact the Flood Wardens • Check that sand and bags are in the sandbags box • Check with Environment Agency how the river is flowing up stream and if the level is beginning to drop
Flood Wardens	Kept informed to pass the information to their neighbours and help any elderly or disabled people
Herts Police	If applicable declare a Major Incident
Herts Fire and Rescue Service	<ul style="list-style-type: none"> • Take the lead in or support London Colney Parish Council in evacuation • Ready to evacuate people
Hertfordshire Highways	<ul style="list-style-type: none"> • Investigate the safety of highways / footpaths and put closures in place where applicable • Put out flood signs

5.4 After flooding:

During this phase, the roles and responsibilities of the different authorities may change according to the level of the damage.

The Environment Agency	<ul style="list-style-type: none"> • Has to collect as much information as possible such as the extent of flooding, numbers of properties affected and a lot of details about the damage. • Produce a report, which helps the indicative floodplain maps and highlight possible areas that may need flood alleviation schemes. • Hold public meetings to update the people affected by the flooding and to answer any questions they have
Hertfordshire County Council-Emergency Planning	Support people who are suffered, shocked, distress etc.
Hertfordshire Highways	Clear drains/gulley's etc.
St Albans District Council	<ul style="list-style-type: none"> • Look after people to return on their home or find them alternative accommodation. • Provide advice about clear up and make skips available. • Provide other parochial support • Environmental Health Officer visits
London Colney Parish Council	<ul style="list-style-type: none"> • Assist St Albans District Council in their action. • Review and where appropriate amend flood plans
Flood Wardens	Provide feedback to Environment Agency on River levels in their area
Herts Police	Take part in debrief to review inter-agency response
Herts Fire and Rescue Service	Take part in debrief to review inter-agency response
Hertfordshire Highways	<ul style="list-style-type: none"> • Re-open or, if need, repair the road. • Take part in de-brief to review inter-agency response

6. RECEPTION CENTRE:

- 6.1 St Alban's District Council's first choice for a reception centre is Cotlandswick Leisure Centre. The Caledon Community Centre is also available. But other suitable premises like Morris Way Pavilion have been identified in advance, in the event of the designated reception centre not being suitable or available.

It's essential that any plans or arrangements that might have been made (e.g., location of reception centre boxes, etc.) are flexible enough to cope with the possibility that a non-designated reception centre may be used.

The reception centre boxes can be located at each of the designated centres. If it's not possible or in case of a non-designated reception centre being used it should be the responsibility of St Albans District Council to transport the box to the appropriate location.

- 6.2 The reception centre boxes (provide by the County Council) contain a variety of items and information, which will be of use in setting up and establishing the reception centre. These boxes include:

- Staff tabards.
- Stationery.
- Signs.
- Casualty Bureau forms.
- Advice leaflets.
- Language Line Cards.
- Flip charts.
- First aid kit.
- Labels.

The inclusion of any additional items that might be of use in setting up and establishing the reception centre is encouraged. It's recommended that a very minimum each box should contain the following essential items:

- Floor layouts/plans.
- Checklists of roles and responsibilities.
- Appropriate signage.
- Casualty Bureau forms.
- Staff tabards.
- Copy of Flood Emergency Plan.
- Current edition of HESMIC Reception Centre Guidance.
- Advice leaflets.
- Current edition of HESMIC Reception Centre Guidance

7. FLOOD RISK AREAS:

There are a lot of properties in the Parish council known to be at risk from flooding. So, the Environment Agency uses the Flood Wardens to alert the community when the River Colne's level increases.

The main risk areas and their Flood wardens are:

- Burr Close Waterside (North)
- Lowbell Lane
- Waterside (South) – Councillor Helen Pakenham
- Willowside
- Five Acres
- St Anne's Road/Shenley Lane
- High Street

8. SANDBAG PROVISION:

Normally St Albans District Council supplies sandbags to London Colney Parish Council.

The bulk of the empty sandbags from St Albans District Council are stored with the sand in a garage at the north end of the village and the Parish Council move them to areas where they are needed.

They, also, will fill and deliver for elderly etc but other people can come and fill their own if needed. The community owns a sandbag box in front of the church near Waterside and the main risk areas. These boxes are not locked, and residents can help themselves to sandbags in the event of a flood.

Most builder's merchants and DIY stores would sell sandbags and the best solution should be that residents store their own sandbags in their gardens, for when they need it and to avoid any unnecessary delays.

9. CONTACT AND COMMUNICATION LINKS:

Organisation	Telephone / web site	Comments
HCC	999 if in immediate danger https://www.hertfordshire.gov.uk/services/Recycling-waste-and-environment/Water/Flooding-in-Hertfordshire.aspx	Flood emergency
HCC	https://www.hertfordshire.gov.uk/faultreporting/	Highways Flood Reporting
Castle Water Anglian Water Affinity	0800 3169800 (Sewerage) 0845 782 3333 0345 357 2407	Relevant water companies for Hertfordshire Flooding from sewers and / or burst water mains
Environment Agency	0345 988 1188	Floodline
London Colney Parish Council	01727821314	The Clerk
St Albans District Council	01727 866100 Out of hours 01727 811155	SADC
National Grid	0800 111 999	To report a gas leak
UKPN	0800 783 8838	To report an electrical hazard
BT	0800 023 2023	National Emergency Linkline
Herts Police	101	Hatfield
Herts Fire and Rescue	01992 50707	Control Centre

10. APPENDIX A: Advice to the public from the Parish Council

- Listen out for warnings on Radio and TV and phone Flood line on 0345 988 1188 for more information.
- Local numbers to contact are:
 - St Albans District Council 01727 866100
 - London Colney Parish Council 01727 821314
- Move pets, vehicles, valuables, and other items to safety.
- Alert your neighbours, particularly the elderly.
- Put sandbags or flood boards in place, but make sure your property is ventilated. Plug sinks baths and put a sandbag in the toilet bowl to prevent backflow. Sandbags are available from the above numbers.
- Be ready to turn off gas and electricity (get help if needed). Unplug electrical items and move them upstairs if possible.
- Co-operate with emergency services and local authorities -you may be evacuated to a rest centre.
- Do as much as you can in daylight. Doing anything in the dark will be a lot harder, especially if the electricity fails.
- Floods are very dangerous and can cause fatalities, so follow this advice to help stay safe in a flood:
- Don't try to walk or drive through floodwater -Six inches of fast flowing water can knock you over and two feet of water will float your car. Manhole covers may have come off and there may be other hazards you can't see.
- Never try to swim through fast flowing water-you may get swept away or be struck by an object in the water.
- Don't walk on riverbanks or cross river bridges they may collapse in extreme situations, or you may be swept off by large waves. Beware of stones and pebbles being thrown up by waves.
- Avoid contact with floodwater as it may be contaminated with sewage.

11. APPENDIX B: Advice about the recovery phase after flooding

This is general advice and specialist advice should be sought before undertaking any remedial action. A flood in a home is a worrying and often frightening experience. When the floodwater has gone there is the additional distress of cleaning the property and repairing the damage caused.

The recovery phase is likely to be a very stressful time. Support from relatives, friends, neighbours, and the Parish Council will be essential. Don't be afraid to ask for help.

11.1 Cleaning Up

After flooding you may not be able to re-occupy your home until these three steps have been taken.

- Mud removal
- Disinfectant and cleaning
- Dry out

11.1.1 Useful Equipment

- Camera to record flood damage
- Basic tool kit including a hammer, nails, screwdriver, and spanners
- Brooms, scrubbing brushes, mops, and buckets
- Domestic detergent and disinfectant
- Rubber boots, gloves, and protective clothing
- Shovels
- Heaters and fans
- Heavy duty refuse bags

11.1.2 Basic Advice

Following a flood, water levels may rise and fall for a period. This will depend on drainage and rainfall. Do not attempt any repairs until you are confident the flooding period has ceased. Keep an eye on weather reports and call Flood line 0845 988 1188 for the latest flood warning.

Most people will need to appoint builders and other specialists to get repairs done. Your insurers will advise but remember it is not a good idea to attempt work which is beyond your capabilities.

11.1.3 If you are insured

Check the policy. Find out exactly what your insurance company will pay for. You may be entitled to assistance with temporary accommodation, drying apparatus and electricity and gas inspections. Take photographs or video footage of all damage, both to your property and your possessions.

Mark the water levels on the walls for reference. Your insurance company may appoint a builder, or you may be asked to obtain competitive quotes from several companies.

Always ensure the insurance company has given approval before going ahead with repair work.

11.1.4 Safety precautions

- Wear protective clothes, sturdy boots, waterproof gloves, and face masks when handling debris.
- Floodwater may be contaminated by sewage, chemicals, or vermin urine. Keep your hands away from your face while cleaning and always wash your hands if you make direct contact with floodwater or silt. '
- Wash all cuts and grazes and cover with a waterproof plaster. Get a tetanus jab if you are not already inoculated.
- Do not attempt to move heavy objects that may be unstable and could suddenly shift and trap or crush you. This includes fallen trees.
- Do not enter any deep standing water that is still fast flowing. Always move slowly and carefully. Standing water and mud can obscure holes (including manholes outside your property), unstable foundations and sharp objects such as broken glass. Sediment can also be slippery.

Vermin, stray cats and dogs and other animals may take shelter in your home if they have been disturbed by the flood. Be cautious in approaching any animal.

Contact the District Councillor's Pest Control contractor: DialAPest directly by telephoning 03444 828 325.

11.1.5 Mains services

If you have not already done so, turn off the electricity supply. Do not reconnect it until the system has been thoroughly examined by a qualified electrician. Check sockets, switches, and appliances before use. Even if it is then considered safe to use electrical equipment in the cleaning process, make sure you use a circuit breaker for additional protection.

Temporary electricity can be supplied by generators, available from hire shops. Ensure there is adequate ventilation as generators produce carbon monoxide. Let the engine cool before re-fuelling.

11.1.6 Removing mud

Shovel out as much mud as possible and use a garden sprayer or hose to wash down. If there is mud on the inside and outside of your walls, remove in stages to ensure the loading remains even.

11.1.7 Cleaning and disinfection

Scrub surfaces with hot soapy water and a heavy-duty detergent. Do not forget difficult to reach areas such as the gap underneath kitchen units. Rinse thoroughly. Items such as soft furnishings, clothes and foodstuffs that have come into contact with floodwater should be placed in rubbish sacks (tied securely) and disposed. All food preparation surfaces, equipment, containers, utensils, crockery, and cutlery must be thoroughly cleaned and disinfected before use.

Most germs need water to survive, so allow all cleansed and disinfected areas to thoroughly dry out.

11.2 Drying Out

11.2.1 Step One: Remove standing water

The fire service can provide a pumping out service, for which a charge may be made. Alternatively, you can rent a pump from a hire shop or buy one from a DIY store. Get advice on how the pump operates. Drain water away in stages to avoid problems with water pressure on the structure of your property. Removing about a third of the volume of water daily is the recommended rate.

Do not heat your home to more than 4 degrees until all standing water is removed.

11.2.2 Step Two: Dry the property

The best way to do this is using the central heating system –but only after gas, water, electricity supplies, appliances and their vents have been thoroughly checked and, if necessary, repaired by a qualified engineer.

Good ventilation is essential as moisture must escape for the building to dry properly. Keep doors and windows open on dry days, and ajar during wet weather. It's difficult to estimate how long a property will take to dry out. Lack of condensation may indicate that the drying process is complete, or you may like to hire or buy a humidity meter which will indicate the moisture level in your home.

11.2.3 Security

While it is important to ventilate your property, it must be locked and secured when unoccupied. Do not leave windows and exterior doors open when no one is present. If necessary, cover open or broken windows with security mesh.

11.2.4 Waste Disposal

The normal refuse collection service will be able to take away a certain amount of waste, but many items will be too large to dispose of in this way. You will need a skip. The Council can give advice on where they can be obtained. If you are making an insurance claim, do not dispose of any item until you are told to do so. If in doubt take photos of the effects of flooding on the items on your property.

11.3 Restoring Main Services

11.3.1 Electricity

The electricity supply must remain switched off until your system has been checked by a qualified electrician. Junction boxes, socket outlets, light switches and ceiling roses may all need to be examined for trapped water or moisture. If your electricity supply is unavailable following a flood you may wish to consider hiring a generator. As these could be in short supply, consider sharing with neighbours and use only for essential needs. Any electrical appliances exposed to floodwater should be checked by a qualified person before use.

11.3.2 Gas

Water and mud may enter gas systems during a flood. Even if appliances appear to be working normally, the flue or ventilation systems may be affected. For safety reasons it is most important to have appliances inspected by a CORGI registered engineer.

If you live in rented property, Local Authority Housing or Housing Association property contact your landlord as soon as possible on their emergency number.

If you smell gas in your home call TRANSCO immediately on 0800 111 999

11.3.3 Water

Mains supply water services should not be affected by flooding. However, run taps for a short time to ensure that silt has not entered the system. If you suspect that the mains supply water is contaminated, contact your local water company and boil tap water for at least 20 minutes before use.

Within the home, check pipes to ensure it has not been damaged and allowed contaminated water to enter the system. You should also check any insulation on the pipes and replace as necessary.

Water supplies not on the mains system, such as wells and cisterns, may be contaminated and should not be used until they have been tested over a period of time.

11.3.4 Sewers

Drains and sewers are rarely damaged by floods, but they may become blocked. Check this by flushing toilets and running taps. Report any blockages to your local water company and wastewater provider. If sewer repairs need to be carried out, consider fitting anti-backflow devices to reduce the likelihood of blockages in the future.

If you have a private sewage system, take particular care to ensure there is no damage that may create a health hazard.

If flooding is likely to recur, ensure that septic tanks are kept full. Should they be empty during severe flood, they may lift out of the ground and float away.

11.4 Repairs

11.4.1 Brickwork

Having dried out the interior of the property, the brickwork will still contain moisture from the flood. The best way to dry it out is through natural evaporation. This is a slow process that can take months. To help this process make sure that all air bricks and other vents are open to allow air to circulate properly.

There may be damage to the brickwork. Bricks can shrink or crack as they dry, particularly if there is a hard frost during the drying process.

Keep a note of any damage to the bricks during the drying period. After this time cracks can be filled, and brickwork re-pointed. Similarly, do not repaint brickwork until it is completely dry.

During the drying stage you may observe a white salt growth on the bricks. This will stop when the wall is fully dried and should then be removed with a bristle broom.

If brickwork fails to dry, samples of the masonry should be tested to see if there is a problem with rising damp. If so, specialist help will be required.

11.4.2 Brick fireplaces

Do not light fires for at least two weeks after the flooding. Initially only make very small fires, steadily increasing their size until you are sure that the firebricks have dried out completely. Steam will be generated by the moisture in the bricks - too much steam can cause additional damage to the chimney.

11.5 Flooring Repairs

Remove floor covering such as carpet, vinyl, or tiles. Insulation materials that have become wet should also be removed, disposed of, and replaced.

11.5.1 Chipboard and other flooring

Chipboard floors will be seriously damaged by floodwater and should be removed and replaced. The spaces beneath concrete floors should naturally drain and dry out through existing air bricks and drain holes. Occasionally additional ventilation may be needed - if you think this is the case seek advice from a professional builder. If your property has suspended wooden floors, some boards should be lifted so that any water present can be removed. This can be achieved by training through air bricks using a pump.

11.5.2 Floor joists

If they show signs of rot, replace floor joists, and treat the surrounding area to prevent spread. Prevent distortion or twisting joists by reinforcing with struts or battens. Floors that do not return to their original level or that crack are called "heaved". In this case the floor may have to be removed and a new one constructed.

If a floor has badly cracked but has returned to its original level, a new floor may be placed over the old one. If this is the case a "vapour barrier" should be added between the two floors. The new floor should be at least two inches thick.

The best way to tell when flooring is dry is by using a meter giving a percentage humidity reading should be under 24%, and under 22% during the summer period.

11.6 Window and Kitchen Repairs

11.6.1 Glass and windows

After a flood clean, all windows, oil locks and hinges to prevent corrosion. Single glazing is likely to be unaffected by flooding unless the windowpane is broken. However, check the condition of putty, window locks etc., to ensure the windows are secure.

Double-glazed units should be inspected to ensure that floodwater has not eroded the edge seal. Check for mud and water stored in hollow window and door frames. If contamination is present, drill drain holes at the top and bottom of the frame. If there is condensation between the panes, the double-glazed unit will need to be replaced.

Sash windows may distort and swell following a flood. Do not force them open as this may cause further damage. The swelling will reduce during the drying process, and they may return to full function. If not, when the wood is totally dry, the fit may be tested, and the sash planed as necessary to make it fit.

If the window must be opened to assist in drying the property, remove the beading and the opening sash. To provide security when the building is unoccupied temporary beading can be screwed into position.

11.7 Insulation and Plastering Repairs

11.7.1 Insulation

Insulation that has become wet must be removed and replaced as it loses its effectiveness and inhibits the drying process. Fibreglass insulation is an irritant. If removing, wear protective clothing (e.g., gloves, goggles, and face mask). Seek expert advice if you believe that wall cavity insulation has been damaged by flooding. It may need to be replaced by specialist contractors.

11.7.2 Kitchen

Remove plinths from floor-mounted cupboards and kitchen units and dry out. Remember to clean and disinfect the area behind and underneath the cupboards.

Kitchen units are frequently made of laminated chipboard and will be severely damaged by flooding. It can be impossible to disinfect properly and will need to be disposed of. Consider replacing with units made from solid wood or plastic, both of which are more flood resistant.

11.7.2 Plaster and dry linings

Unless the flood lasted only a few minutes, plasters will absorb large quantities of water and will distort. Damaged plasterwork will need to be replaced but wait until you are sure that crack movement and salt deposition have ceased. Consider re-plastering with a material more resilient to flood damage may be better than plastering.

Where there are plasterboard dry linings or insulated plasterboard fixed to the wall with plaster adhesive, first remove the skirting boards. Then cut or drill holes through the plasterboard or dry linings to drain trapped water and aid ventilation. Replacement of plasterboards or dry linings will be necessary up to at least the high-water mark as it is likely to have de-bonded. Consider replacing with wooden dry lining which can be dried and re-used. Timber studs will also need to be dried out and replaced.

11.8 Structural/Wall/Wood Repairs

11.8.1 Structural damage

Make regular checks on your property following a flood, as sometimes it takes a while for structural damage to become apparent.

Tell-tale signs:

If you notice any of these signs, contact your insurance company:

- Changes in the line or appearance of the roof ridge (best observed from a distance).
- "Buckling" of walls, identified by horizontal cracking or areas that appear to have moved out of vertical alignment
- Vertical or diagonal cracks which may indicate that walls or footings have "settled".
- Bulging or dislodged sections of the property
- Deep scouring which has led to exposed foundations.
- Any new cracks bigger than 5 mm above doors or windows.

11.8.2 Walls

Ensure air bricks are clear for ventilation, wash and disinfect all contaminated internal walls and remove all loose coverings such as wallpaper and tiles. It is important to remove or drain residual floodwater, mud or debris remaining in external or internal wall cavities. Either have the cavities inspected by a specialist, or carefully remove bricks so that you can assess the internal conditions. If wall ties are corroded it is advisable to get an expert to replace them.

11.8.3 Wood

If wood can be dried within a few weeks decay is unlikely. Wood framed walls need to be exposed unless the flooding only lasted a few hours, reached a depth of 150 mm or less, and the moisture content of the wood (checked by a specialist) is less than 20%. To expose wood framed wall, any plasterboard, vapour control membranes and insulation should be removed up to the highest level of the floodwater.

Wooden window frames may swell and jam when wet and this distortion may cause paint to flake. Get an expert to check the moisture content of the wood and advise if rot is present. Wet timber can be treated with preservative plugs. Once dry, the frames can be redecorated. Wooden staircases may have become unstable and weak. Check the support of the staircase and, if required, strengthen it with extra struts under the floor. Stabilise loose treads once the staircase has dried out.

Fire doors are often constructed with layers of fire-resistant compound packed in their cores. Floodwater can permanently damage these types of doors so they should always be replaced.

3

