

# Lambeth Local Flood Risk Management Strategy

---

*Guidance for Residents*

Draft for Consultation

August 2013





QUALITY MANAGEMENT

REPORT NAME: LAMBETH LOCAL FLOOD RISK MANAGEMENT STRATEGY – GUIDANCE FOR RESIDENTS

PROJECT NO: 47061454

REPORT STATUS: DRAFT FOR CONSULTATION

REPORT PRODUCED BY: URS INFRASTRUCTURE & ENVIRONMENT UK LIMITED  
SCOTT HOUSE, ALENCON LINK, BASINGSTOKE, RG21 7PP.  
TELEPHONE: +44(0)1256 310 200

REVISION SCHEDULE:

REV	DATE	DETAILS	PREPARED BY	CHECKED BY	APPROVED BY
0.1	JUNE 2013	DRAFT FOR INTERNAL REVIEW	AMY RUOCCO ASSISTANT CONSULTANT	JON ROBINSON OPERATIONS DIRECTOR	JON ROBINSON OPERATIONS DIRECTOR
			SARAH KELLY SENIOR CONSULTANT		
1.0	AUGUST 2013	DRAFT FOR CONSULTATION	SARAH KELLY SENIOR CONSULTANT	JON ROBINSON OPERATIONS DIRECTOR	JON ROBINSON OPERATIONS DIRECTOR

LIMITATIONS:

URS Infrastructure & Environment UK Limited (“URS”) has prepared this Report for the sole use of **London Borough of Lambeth** (“Client”) in accordance with the Agreement under which our services were performed (**Ref: 47061454 / Phase 2 dated August 2012**). No other warranty, expressed or implied, is made as to the professional advice included in this Report or any other services provided by URS. This Report is confidential and may not be disclosed by the Client nor relied upon by any other party without the prior and express written agreement of URS.

The conclusions and recommendations contained in this Report are based upon information provided by others and upon the assumption that all relevant information has been provided by those parties from whom it has been requested and that such information is accurate. Information obtained by URS has not been independently verified by URS, unless otherwise stated in the Report.

The methodology adopted and the sources of information used by URS in providing its services are outlined in this Report. The work described in this Report was undertaken between [insert date] and [insert date] and is based on the conditions encountered and the information available during the said period of time. The scope of this Report and the services are accordingly factually limited by these circumstances.

Where assessments of works or costs identified in this Report are made, such assessments are based upon the information available at the time and where appropriate are subject to further investigations or information which may become available.

URS disclaim any undertaking or obligation to advise any person of any change in any matter affecting the Report, which may come or be brought to URS’ attention after the date of the Report.

Certain statements made in the Report that are not historical facts may constitute estimates, projections or other forward-looking statements and even though they are based on reasonable assumptions as of the date of the Report, such forward-looking statements by their nature involve risks and uncertainties that could cause actual results to differ materially from the results predicted. URS specifically does not guarantee or warrant any estimate or projections contained in this Report.

Costs may vary outside the ranges quoted. Whilst cost estimates are provided for individual issues in this Report these are based upon information at the time which can be incomplete. Cost estimates for such issues may therefore vary from those provided. Where costs are supplied, these estimates should be considered in aggregate only. No reliance should be made in relation to any division of aggregate costs, including in relation to any issue, site or other subdivision.

Forecast cost estimates do not include such costs associated with any negotiations, appeals or other non-technical actions associated with the agreement on measures to meet the requirements of the authorities, nor are potential business loss and interruption costs considered that may be incurred as part of any technical measures.

Copyright

© This Report is the copyright of URS Infrastructure & Environment UK Limited. Any unauthorised reproduction or usage by any person other than the addressee is strictly prohibited.



## Foreword

*This document supports the Lambeth Local Flood Risk Management Strategy to provide information and guidance to residents in Lambeth on local flood risk, management of this, both by the Council and other authorities, and how residents can participate and take forward management measures to increase resilience both to their own properties and their local community.*

*This document should be read in conjunction with the Main Strategy which outlines our local flood risk management objectives and actions for the next five years.*

*In developing the Strategy, we have consulted with communities to understand your experience and perceptions of flood risk, priorities for how to manage the risk and preferred measures to achieve those priorities. This Guidance Document supports the objectives and actions outlined in the Strategy to provide further information on,*

- *The flood risk facing communities in Lambeth and who is responsible for this,*
- *How to prepare for flooding and what warning services are available,*
- *What you should do if you see or experience a flood,*
- *Actions you can take to make your property more resilient,*
- *How you can help to reduce flood risk in Lambeth,*
- *What Lambeth Council is doing to address local flood risk, and*
- *Where you can get further information.*

*Throughout the document we have provided links to further guidance and examples of best practice.*

*Information provided in this document will be updated through the lifetime of the Strategy as our understanding of flood risk across Lambeth increases, more information or examples of best practice become available and we work with communities to improve flood resilience. Please check the Lambeth website ([www.lambeth.gov.uk](http://www.lambeth.gov.uk)) for the latest information.*

For information on flood risk management, how the Council is helping to deliver this across the borough, and how you can make your property more resilient to flooding in the future, please click on the links below for further information:

- What is the flood risk to communities in Lambeth? ..... 1**
  - *What types of flood risk are there in Lambeth and who is responsible for these? ..... 1*
  - *How do I know if my property is at risk? ..... 2*
  - *Am I at risk of flooding? ..... 2*
- How do I prepare for flooding? ..... 4**
  - *Is there a warning service available for flooding? ..... 4*
  - *What should I do to prepare for a flooding event? ..... 5*
- What should I do if I see or experience a flood? ..... 6**
  - *What should I do if water is...? ..... 6*
  - *How do I report a flooding incident? ..... 7*
  - *How do I feedback information about flooding to Lambeth Council? ..... 7*
- What can I do to make my property more resilient to flooding? ..... 8**
  - *How can I improve the resilience of my property to flooding? ..... 8*
  - *What measures are available to improve the resilience of my property? ..... 8*
  - *How much will these measures cost and how do I source them? ..... 9*
  - *How does this affect insurance of my property? ..... 10*
- How can I help to reduce flood risk in Lambeth? ..... 11**
  - *Is there anything I can do to reduce surface water flooding in my area? ..... 11*
- What is Lambeth Council doing to address local flood risk? ..... 16**
  - *What is the council doing to help reduce the risks? ..... 16*
  - *How will Lambeth work with residents to deliver flood risk management? ..... 16*
- How can I find out further information? ..... 17**

## What is the flood risk to communities in Lambeth?

### *What types of flood risk are there in Lambeth and who is responsible for these?*

#### Flooding from Rivers

Flooding from rivers, such as the River Thames or River Graveney, is referred to as fluvial or tidal flooding, where the river is influenced by the tide. Flood zones are defined for each river, outlining the different flood risk associated to each area of the borough from these sources and defences that are in place that protect communities from fluvial or tidal flooding.

Flooding from rivers falls under the remit of the **Environment Agency**, and further information in relation to flood zones and management of these is available on the [Environment Agency website](#).

#### Surface Water Flooding

Surface water flooding occurs when rainwater does not drain away through the normal drainage systems or soak into the ground, but lies on or flows over the ground instead. This type of flooding can be difficult to predict or pinpoint and is typically more widespread across the borough, but very localised in the areas that it impacts.

**Lambeth Council**, as a Lead Local Flood Authority, has a responsibility to manage risk from surface water flooding.

#### Groundwater Flooding

Groundwater flooding happens when levels of water in the ground rise above the surface. It can affect property and structures above and below the ground. It is most likely to happen in areas where the ground contains aquifers. These are permeable rocks that water can soak into or pass through. Groundwater flooding generally has a much slower onset and can last for several weeks, until such time as the water table lowers. However, due to its nature, it is extremely difficult to predict, map and manage.

**Lambeth Council**, as a Lead Local Flood Authority, has a responsibility to manage risk from Groundwater flooding.

#### Sewer Flooding

Sewer flooding happens when sewers are overwhelmed by heavy rainfall or when they become blocked. The chance of flooding depends on the capacity of the local sewerage system and the amount of rain that falls. Land and property can be flooded with water contaminated with raw sewage as a result. Rivers can also be polluted by sewers that overflow. Water and sewerage companies are responsible for managing the risks of flooding from their surface water and foul or combined sewer systems. They do this by investing in their sewer systems to minimise the risk to communities.

**Thames Water Utilities Ltd.**, as the water and sewerage undertaker, is responsible for managing the flood risk from public sewers in Lambeth.

#### Highways Flooding

Highways authorities provide and manage highway drainage and roadside ditches. They are responsible for managing surface water flood risk on roads through maintenance of the highway drainage system

**Lambeth Council** (public highways) and **Transport for London** (Red Routes) are responsible for managing the flood risk from highways in Lambeth.

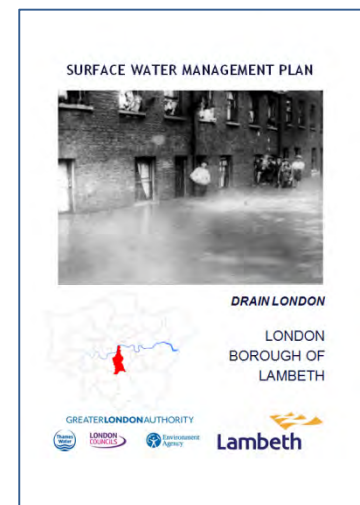
#### Reservoir Flooding

The [Environment Agency website](#) shows the areas at risk from flooding if large reservoirs (those that hold over 25,000m<sup>3</sup> of water) were to fail.

The **Environment Agency** is responsible for managing the flood risk from Reservoirs.

## How do I know if my property is at risk?

- **Fluvial flooding** – the Environment Agency has the facility on their website to search for [flood risk from tidal or river sources](#) by postcode.
- **Surface water flooding** – this is far more difficult to predict and often affects a very localised area. Lambeth Council is trying to build a picture of where flooding has occurred in the past, as well as using computer models to try to assess the likelihood of risk in other areas. The [Lambeth Surface Water Management Plan](#) provides further information on surface water flood risk.
- **Groundwater flooding** – flooding from groundwater is extremely difficult to predict and map. It can often occur days or weeks after prolonged rainfall and can occur in random locations. Predictions of vulnerability to groundwater flooding are usually based on the geology of an area combined with any historic records. The [Lambeth Surface Water Management Plan](#) provides further information on groundwater flood risk.
- **Sewer flooding** – the risk of sewer flooding and management of this is the responsibility of Thames Water. Sewer flooding events are often influenced by heavy rainfall and therefore it is closely linked to surface water flooding. There is no information available to the public regarding sewer flood risk. This has previously been provided to Lambeth Council by Thames Water through partnership working and flood risk studies undertaken for the borough including the [Lambeth Surface Water Management Plan](#) and [Lambeth Strategic Flood Risk Assessment](#). It should be noted however, that most public sewers are only designed to accommodate flows for a 1 in 30 year rainfall event, and therefore any flooding events that exceed this would be expected to overwhelm the existing sewerage infrastructure. It is therefore recommended that property owners and tenants adopt resilience measures to protect themselves and their property from larger magnitude flooding events.
- **Reservoir flooding** – while the chance of flooding from reservoirs is very small, understanding where water could go could help you stay safe. [Reservoir flood maps](#) are available on the Environment Agency website to help you find out if you could be affected by reservoir flooding.



## Am I at risk of flooding?

Historically, Lambeth has suffered from fluvial, surface water, groundwater and sewer flooding. Whilst fluvial flood risk in the north of the borough is now reduced through the presence of flood defences, including the Thames Barrier, surface water, groundwater and sewer flood risk remains across the borough, typically in very localised areas. The risk of flooding from all sources is likely to increase in the future as a result of climate change and increasing pressures on development and housing need.

**It is important to remember that flood risk is not just the likelihood of flooding, but the possible damage a flood could do as well.**

Modelling undertaken indicates that much of the borough could be at risk from surface water flooding, and measures should be taken both by the Council, at a strategic level, and residents at the property or community level to mitigate against this and increase resilience. Within Lambeth, up to 43,750 residential properties and 2,420 commercial properties could be at risk of flooding from surface water, based on assessments undertaken across the borough. It should be noted that this relates to the risk based on the best available modelling undertaken at the time of the Strategy production, and Lambeth Council will be working with residents, businesses, landowners and risk management authorities across the borough to improve the knowledge and understanding of flood risk across the borough over future years.

The table on page 3 outlines the historic flooding and flood risk for each Ward across Lambeth. This is based on the outputs of the [Surface Water Management Plan](#) and the [Strategic Flood Risk Assessment](#).

### Historic Flooding and Flood Risk in Lambeth

Area	Ward	Historic Flooding					Risk of Flooding <sup>1</sup>					Predicted number of properties at risk from surface water flooding <sup>2</sup>			
		Surface Water	Ground water	River / Tidal	Sewers	Reservoirs	Surface Water <sup>2</sup>	Ground water	River / Tidal	Sewers	Reservoirs	Residential Properties	Commercial Properties	Infrastructure	Total no. Properties
North Lambeth	Bishop's	✓	✓	x	✓	x	L	✓	✓	x	x	639	263	22	924
	Prince's	✓	✓	x	✓	x	L	✓	✓	x	x	961	82	11	1,054
	Oval	✓	x	x	✓	x	M	✓	✓	x	x	2,159	146	21	2,326
Stockwell	Vassall	✓	x	x	✓	x	M	✓	x	x	x	1,576	85	7	1,668
	Stockwell	✓	✓	x	✓	x	L	✓	✓	x	✓	1,235	111	10	1,356
	Larkhall	✓	x	x	✓	x	M	✓	✓	x	✓	1,510	101	11	1,622
Clapham	Clapham Town	x	✓	x	✓	x	H	✓	✓	x	✓	2,381	252	15	2,648
	Clapham Common	x	✓	x	✓	x	M	✓	x	x	x	1,561	68	14	1,643
	Thornton	x	✓	x	✓	x	M	✓	x	x	x	1,625	31	7	1,663
Brixton	Ferndale	✓	✓	x	✓	x	M	✓	x	x	x	2,244	73	12	2,329
	Brixton Hill	x	✓	x	✓	x	M	✓	x	x	x	1,990	158	18	2,166
	Tulse Hill	✓	✓	x	✓	x	M	✓	x	✓	x	2,316	27	16	2,359
	Coldharbour	✓	✓	x	✓	x	M	✓	x	x	x	2,150	141	11	2,302
	Herne Hill	✓	✓	x	✓	x	H	✓	x	✓	x	2,937	143	18	3,098
Norwood	Thurlow Park	✓	✓	x	✓	x	H	x	x	✓	x	3,098	83	20	3,201
	Gipsy Hill	✓	✓	x	✓	x	H	x	x	x	x	3,431	222	22	3,675
	Knight's Hill	x	✓	x	✓	x	H	x	x	x	x	2,899	105	11	3,015
Streatham	Streatham Hill	x	✓	x	✓	x	H	x	x	x	x	2,507	49	6	2,562
	Streatham Wells	x	✓	x	✓	x	H	x	x	✓	x	2,449	88	15	2,552
	St Leonard's	x	✓	x	✓	x	M	✓	x	✓	x	2,289	156	14	2,459
	Streatham South	x	✓	✓	✓	x	M	✓	✓	x	x	1,784	37	13	1,834

1. Flood risk based on assessments provided in the Lambeth Surface Water Management Plan and Strategic Flood Risk Assessment

2. Flood risk is based on 1 in 100 year rainfall event flood depth modelling predictions where H = High risk (>2,500 properties), M = Medium risk (>1,500 and < 2,500), L = Low risk (<1,500)






### How do I prepare for flooding?

#### Is there a warning service available for flooding?

If your property is at risk from **fluvial flooding** you can register with the Environment Agency's free [Floodline](#) service which will warn you if you need to have temporary protection in place ahead of **fluvial** flooding. This is a 24 hour advice and information service for floods and flood warnings. To register for Floodline visit the Environment Agency's [Flood Warnings Direct](#) webpage or call the Environment Agency on 0845 988 1188. To obtain local flood information by telephone from the Environment Agency call 0845 988 1188.

The Flood Warning Service has three types of warnings that will help you prepare for flooding and take action. Further information on these [warnings](#) is available through the Environment Agency's website.

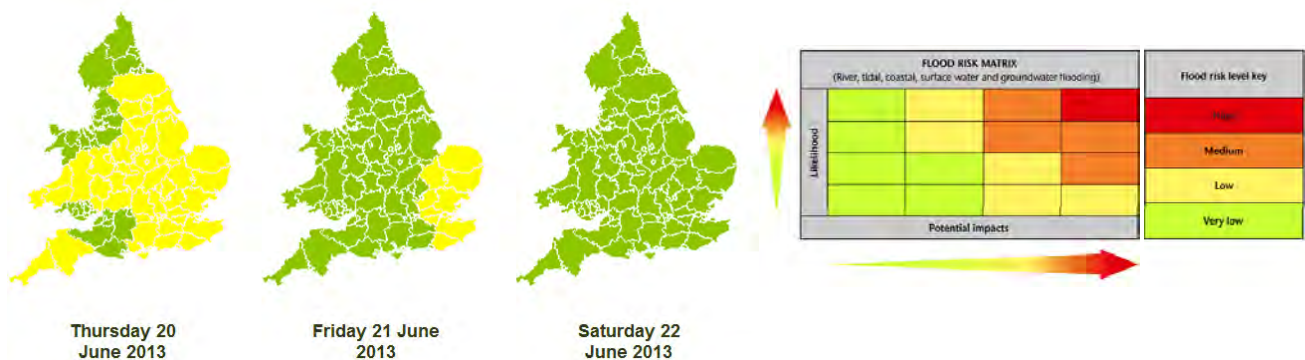
Environment Agency Flood Warning Types			
 <b>FLOOD ALERT</b> <i>Flooding is possible. Be prepared.</i>	 <b>FLOOD WARNING</b> <i>Flooding is expected. Immediate action required.</i>	 <b>SEVERE FLOOD WARNING</b> <i>Severe flooding. Danger to life.</i>	<b>Warnings no longer in place</b>  <i>No further flooding is currently expected in your area.</i>

Lambeth contains two flood warning areas. The extent of these is shown on the [Environment Agency's website](#). To obtain up to date information on a specific flood warning area call Flood Line on 0845 988 1188, select Option 1 then enter the quick dial code listed below.

Flood Warning Area	Flood Line Quick Dial Number
Tidal Thames riverside from the Thames Barrier to Putney Bridge	174315
Norbury Brook at Thornton Heath and Streatham Vale	173801

There is currently **no flood warning service for surface water** as the sporadic and intense nature of rainfall that causes surface water flooding makes it very difficult to accurately predict where surface water flooding will occur. It is recommended that you monitor forecasted weather conditions, and take appropriate measures as required. The [Met Office](#) website provides the latest weather forecast for your area.

The Environment Agency provide a [three day flood forecast](#) for flooding risk, which includes identification and a commentary, at a county level within each Environment Agency Region, for fluvial and surface water flooding for each of the next three days. Risk is categorised into High, Medium, Low or Very Low Risk. For Lambeth, the information is categorised at the **Greater London Area**, within the **Thames Region**. Further [Guidance](#) is available to explain the risk categories used.



*Example of the Environment Agency's Three Day Flood Risk Forecast*

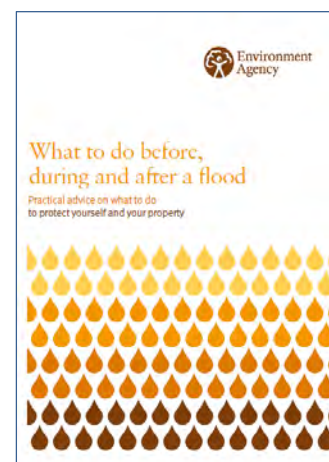
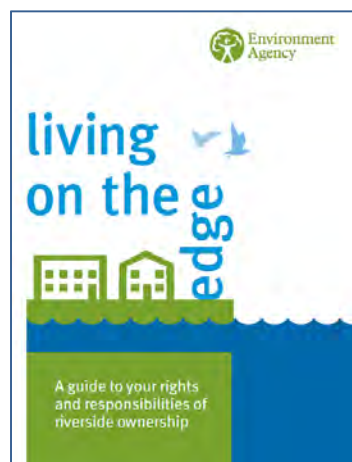


### **What should I do to prepare for a flooding event?**

There are several steps you can take to prepare for flooding. These include:

- Signing up for free flood warnings (if available for your area),
- Creating a kit of essential items to keep at hand, including important documents, torch, radio, blankets or warm clothing, first aid kit, bottled water, tinned food, personal items, mobile phone and waterproof clothing.
- Making a flood plan to plan what you would do in a flood and have emergency contact numbers to hand. The Environment Agency has produced a Personal Flood Plan template, available through their '[Make a Flood Plan](#)' webpage.
- Raise awareness of flooding in your area – this could include downloading and using posters to encourage people in your community or area to prepare for flooding or producing a [Community Flood Plan](#) to help community members and groups plan how they can work together to respond quickly when flooding happens. The Environment Agency has produced a Community Flood Plan template, available through their '[Make a Flood Plan](#)' webpage.
- Prepare your property for flooding - it is not possible to completely flood proof your property but there are lots of things you can do to reduce flood damage. These are discussed later in this Guidance Document under '[What can I do to make my property more resilient to flooding?](#)'
- Know your rights and responsibilities if you are a riverside property owner - if you own land or property alongside a river or other watercourse including a culvert, you should read the Environment Agency '[Living on the Edge](#)' guidance document which explains your rights and responsibilities as a riverside property owner.

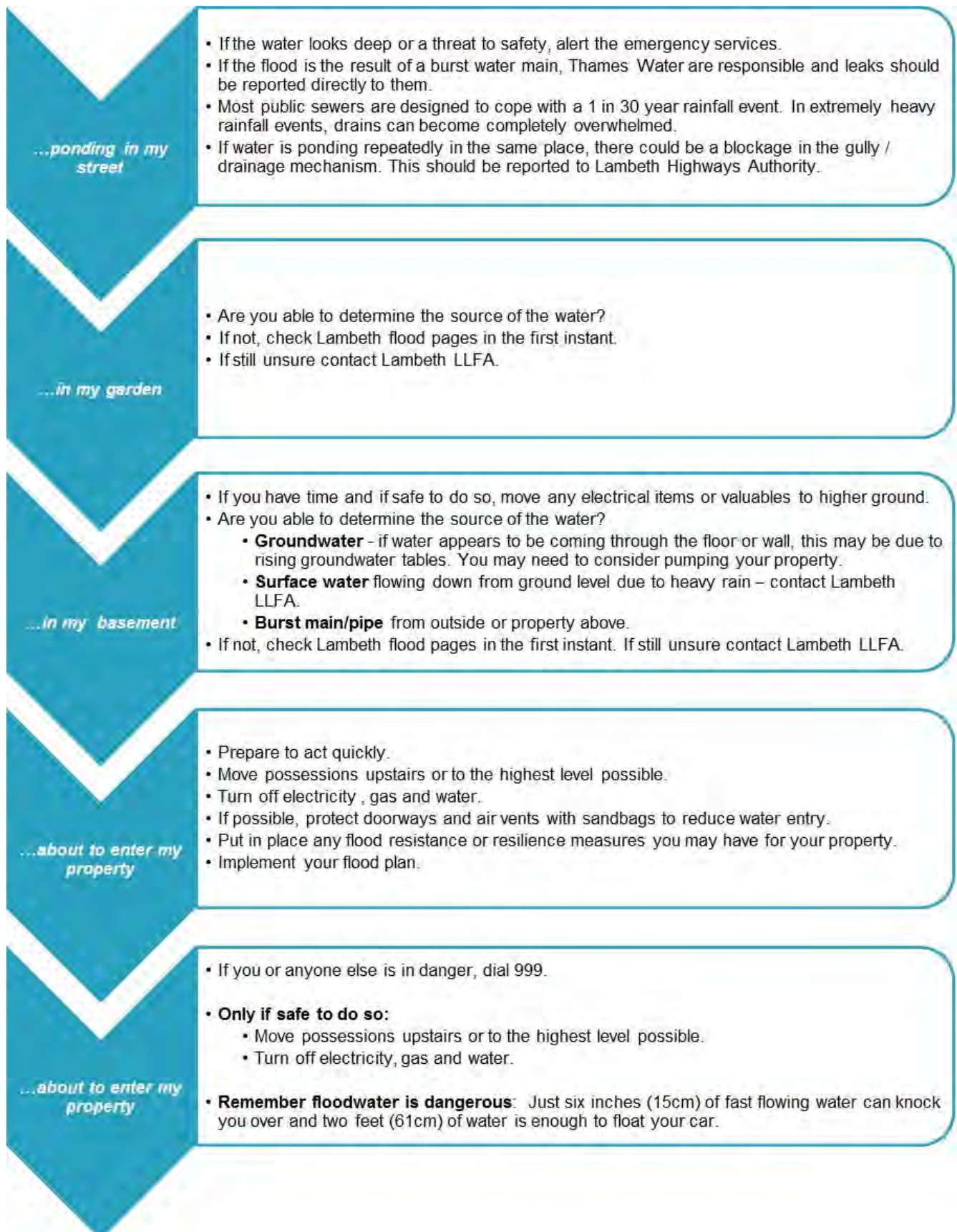
Further information on [How to be prepared for flooding](#) is available via the Environment Agency's website and via their Guidance document '[What to do before, during and after a flood](#)'



***Environment Agency Guidance Documents (click on documents to be directed to website)***

## What should I do if I see or experience a flood?

### What should I do if water is...?





**How do I report a flooding incident?**

- If it is an **emergency** and there is a **risk to yourself or others**, call the emergency services on **999**.
- If it is **not an emergency** contact the authority responsible for the source of flooding on the contact numbers provided below. If you are unsure of the source of the flooding or require more general flood risk management advice, call Lambeth Lead Local Flood Authority (LLFA) on 020 7926 1000 in the first instance.

Risk Management Authority	Responsibility	Telephone	E-mail
Lambeth Lead Local Flood Authority (LLFA)	Flooding from surface runoff, groundwater or small ditches	020 7926 1000 (24-hour)	<a href="mailto:flooding@lambeth.gov.uk">flooding@lambeth.gov.uk</a> (for non-urgent response)
Environment Agency	Flooding from main rivers (River Thames & River Graveney)	0800 80 70 60 (24-hour)	<a href="mailto:enquiries@environment-agency.gov.uk">enquiries@environment-agency.gov.uk</a> (for non-urgent response)
Thames Water Utilities Limited	Flooding from public sewers	0845 9200 800 (24-hour)	Not Available
	Flooding from burst water main or pipe leak	0800 714 614 (24-hour)	Report a leak via the <a href="#">Thames Water website</a>
Lambeth Highways Authority	Flooding from public highways	020 7926 9000	<a href="mailto:streetcarecallcentre@lambeth.gov.uk">streetcarecallcentre@lambeth.gov.uk</a>
Transport for London (TfL)	Flooding from Red Routes	0845 305 1234 (24-hour)	Report a street works issue via the <a href="#">TfL website</a>
Neighbouring boroughs (Southwark, Wandsworth, Croydon, Merton, Bromley)	Flooding from surface runoff, groundwater or small ditches and highways in those boroughs	<i>See relevant council website for contact information.</i>	

**How do I feedback information about flooding to Lambeth Council?**

If you have any accounts of flooding you have experienced, even if small, the information can help us to improve our understanding of flood risk across the borough and build an evidence base to justify future investment in flood mitigation measures. Any information or photos can be sent to [flooding@lambeth.gov.uk](mailto:flooding@lambeth.gov.uk). In time, the Lambeth website will be updated to allow you to upload your ‘flood stories’ and share information with other residents in your community.

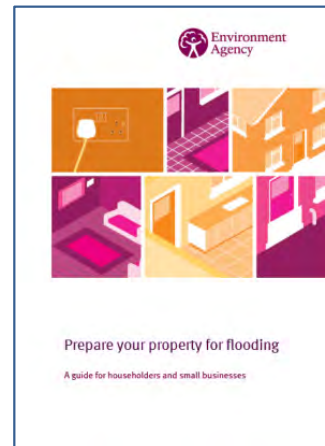
## What can I do to make my property more resilient to flooding?

### How can I improve the resilience of my property to flooding?

If your property is within an area at higher risk of flooding and /or it has flooded in the past, you may wish to consider installing measures to increase the resilience to future flooding.

It is impossible to completely flood-proof a property, however, there are a number of things you can do to reduce flood damage. Actions you take could help:

- prevent water arising from short and shallow flooding from getting into your property,
- delay flood water from getting into the property if flooding is more severe, giving you extra time to move your possessions to safety and evacuate the property,
- limit the damage to walls, floors, fixtures and fittings if flood water gets into the property, and
- make it easier, faster and cheaper to clean up and dry out, so that you minimise the impact of the flooding.



Resistance measures are aimed at keeping floodwater out of a building. They are designed to lessen the damage that floodwater can have and also give homeowners extra time to move ground floor contents. As the measures tend to be temporary, they may only be effective for a limited time and limited water depth and may be reliant on the property owner or tenant being at home to deploy the measures in advance of any flooding. Permanent resistance means that flood protection is permanently in place with no action needed to deploy the device.

Whether you rent or own your home, the most important thing is to prepare in advance; waiting until flooding looks likely to take place will, in most cases, be too late. Even if you are not the property owner, the advice on how preparing yourself for flooding and improving resilience is still relevant; if you think there are significant risks to your home, you should discuss this with your landlord as they may wish to invest in physical measures to protect their property.

The Environment Agency has produced an advice leaflet on how property owners can make their homes or business more resilient and reduce the risk of flood damage: [Prepare your property for flooding](#). They also have advice available on preparing your property for flooding, available through their [website](#).

Further information is also available through the National Flood Forum website. The [National Flood Forum](#) is a national charity that provides support and advice to communities and individuals at risk of flooding.

**If you are considering installing flood resistance measures for your property it is recommended that you discuss your requirements with Lambeth Council in the first instance, to determine the risk in your area, appropriate measures for your property and how you can find out further information.**

### What measures are available to improve the resilience of my property?

There are a number of property level flood resistance measures available that you could consider to help keep flood water out of your property. These include,

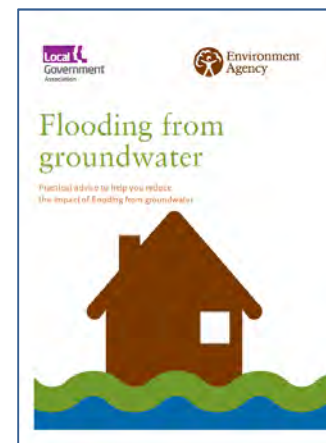
- **Doors and windows** - automatic flood proof doors and windows that can be fitted when flooding is expected. Raise door thresholds to help keep water out from shallow flooding.
- **Patio doors** - flood proof doors and flood barriers are also available for patio doors.
- **Air bricks** - automatic flood proof airbricks or specially designed covers that can be easily fitted over airbricks when flooding is expected.
- **Drains and pipes** - fit non-return valves to drains and water inlet and outlet pipes. This will prevent waste water from flowing into the property during a flood.

- **Floors** - raise damp-proof brick courses, seal floors (tanking) or replace wooden floorboards with concrete to help delay flood water rising up from the ground.
- **Landscaping** - landscape garden areas and driveways so they help divert water away from your property.
- **Barriers** - free-standing temporary flood barriers can help keep water out of your property, but bear in mind that water could still get in through the drainage system. Also, if your property is one of several at risk of flooding you could consider building a single barrier around all of the properties with your neighbours, which would help share the cost as well as the benefits.
- **Sandbags** - traditionally people have used sandbags, but they can be difficult to get hold of in an emergency. Specially designed products are more effective ways of sealing entrances. The Environment Agency has produced a [Guidance Document](#) on how to use Sandbags for flood protection. Please note that Lambeth Council does not issue sandbags to residents or business.
- **Pumping** - if your property can flood through the ground you may need to consider pumping water to protect your property.
- **Exterior walls** - check the pointing and apply water-proofing sealant to exterior walls.



The [Home Owners Guide to Flood Resilience](#) is available through Lambeth's website and provides further information on the measures identified above and others that may be appropriate for your property.

Careful consideration of the purpose and type of measure you are looking to install should be undertaken before you proceed with purchasing. For example, many traditional methods of flood protection, such as sandbags, may not be effective against flooding from groundwater. This is because water can come up through the floor and remain high for a long time. If your property is in an area that is affected by flooding from groundwater you may need to consider pumping water to protect your property. The Environment Agency has produced a guidance document on [reducing the impact of flooding from groundwater](#).



### ***How much will these measures cost and how do I source them?***

The cost of individual flood resilience measures can vary widely depending on the type of measure. The [Home Owners Guide to Flood Resilience](#) provides indications of costs for individual flood resistance and resilience measures. According to the Association of British Insurers (ABI), to protect a property against shallow flash floods could cost between £2,000 and £6,000.

The National Flood Forum has developed an independent directory of flood protection products and services known as the '[Blue Pages](#)'. The directory has been put together to provide advice and information on the measures available to help protect properties against flooding and companies who provide these goods or services. It should be noted that the National Flood Forum does not endorse any individual product or company.

The Environment Agency has also produced [guidance on buying products](#) which is available through their website.

It is important that before buying a flood product you check it has been tested to industry standards. It should display the Kitemark symbol or equivalent accreditation if it has been tested properly.

### *How does this affect insurance of my property?*

The likelihood of flooding may have an effect on home insurance in your area. An insurance company may ask you for more information about flood likelihood by asking you for an Insurance Related Request Letter. The Environment Agency can provide a letter setting out the flood risk from rivers and the sea for the area of your address, which may be helpful for obtaining insurance. The letter is available free of charge and you should call 03708 506 506 for more information.

Some insurers may lower a premium or excess if you take your own steps to reduce flood risk. These include installing one-way valves that prevent water from pipes coming back into the house, raising electrical wires so that they do not run along skirting boards, and installing specially designed covers that are easy to place over ventilation bricks. You would need to talk to your individual insurance company regarding their policy for lowering a premium or excess.

If you have been flooded, contact your insurance company immediately. The majority of household policies provide insurance cover for flooding. If you are a tenant and have taken out contents insurance, household contents, fixtures and fittings should be covered; it is normally the responsibility of the landlord to provide buildings insurance. Remember to keep records of flood damage, including photographs, and do not dispose of anything without first consulting your insurance company.

Since 2000, the members of the Association of British Insurers (ABI) have been abiding by a 'Statement of Principles' for the provision of insurance cover. This agreement, made between the ABI and the Government, enables the insurance market to provide affordable flood insurance to the majority of households and small businesses in the UK. This agreement is due to expire in the summer of 2013 and the Government has recently announced that the ABI and Government have agreed a Memorandum of Understanding on how to develop a not-for-profit scheme – Flood Re – that would ensure flood insurance remains widely affordable and available in the future. Flood Re is due to commence in summer 2015 and until that time ABI will continue to abide by the 'Statement of Principles'.

## How can I help to reduce flood risk in Lambeth?

### Is there anything I can do to reduce surface water flooding in my area?

It is the responsibility of householders and businesses to look after their property, including protecting it from flooding, as outlined in the previous section. Whilst in some circumstances other organisations or property owners may be liable due to neglect, there will be many occasions when flooding occurs despite all parties meeting their responsibilities. Consequently, it is important that householders, whose homes are at risk of flooding, take steps to ensure that their home is protected.

Flood protection measures also offer the opportunity to reduce flooding in your local area, particularly from surface water flooding which largely arises from heavy rainfall falling on impermeable (paved) areas. A number of measures are available that you could implement either individually or collectively with your neighbours to reduce flood risk to your property and local area and at the same time potentially save you money in the longer term, e.g. through water conservation measures. These measures include:

- Depaving your front garden,
- Increasing Permeability and Reducing Hard Standing,
- Installing Green Roofs or Living Roofs,
- Installing Rain Gardens,
- Implementing Water Conservation Measures, and
- Reducing Fats, Oils and Greases in Sewers.

Further information on 'How to Reduce Flood Risk' and links to best practice guidance and case studies is available via the Lambeth Council website.

If you identify any areas that would benefit from these types of scheme, and would like to discuss in further detail, please contact the Council at [flooding@lambeth.gov.uk](mailto:flooding@lambeth.gov.uk).

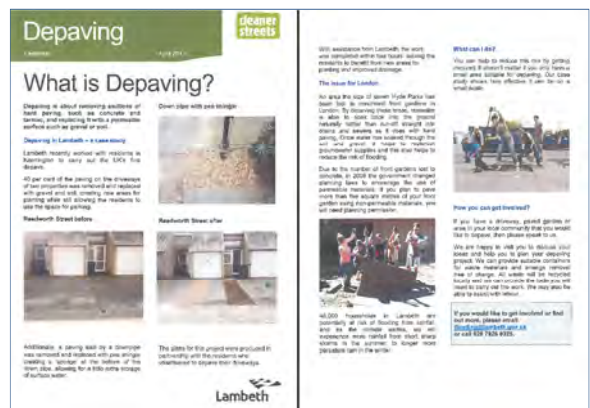
### Depaving

Depaving involves removing sections of paving, concrete or tarmac and replacing them with a permeable surface such as gravel or soil. The benefits include:

- reduced surface water run-off,
- increased replenishment of groundwater supplies,
- reduction in urban heat island effect, and
- associated benefits from an increase in plant cover, such as a reduction in CO<sub>2</sub> and airborne pollutants.

Lambeth Council can help with advice and the removal of the waste materials. A leaflet has been produced by the Council to explain how residents can depave their front gardens. This is available via the [Lambeth Website](#).

Further information on Depave is available via the [How to Depave Guide](#).



### Example of Depave in Lambeth - Kennington Depave Retrofit

Lambeth Council has been working with residents to encourage and assist them in depaving their front gardens to reduce hard standing areas and return driveways and gardens to impermeable surfaces that can help to reduce and slow surface water runoff, providing local flood risk benefits.

In September 2012, a workshop was undertaken with residents in Reedworth Street where two paved front gardens had 40% hard surface removed and permeable and planting areas were introduced. Lambeth Council supplied the material (soil, pea shingle), tools (picks, shovels), gang to help and show what to look for and removal of the spoil. It took four hours in total to depave the two front gardens.



*Reedworth Street before Depave Retrofit*



*Reedworth Street after Depave Retrofit*

Further information on the [Kennington Depave Retrofit](#) is available via the [Susdrain website](#).

### Increasing Permeability and Reducing Hard Standing

Increasing permeability of hard standing surface or reducing hard standing can deliver significant local benefits in;

- Creation of a new space,
- Improved amenity, and
- Reduced surface water runoff.

‘Greening the grey’ as these measures are sometimes referred, could be as small as ensuring that when you want to convert your garden to parking, your front garden is paved using permeable materials with surface water draining naturally to lawns or border, to converting existing hard surfaces such as alleyways to permeable surfaces (see example below) and introducing green areas, such as planting areas.

In 2008 the Government changed planning laws on **paving front gardens** to reduce flooding risk and pollution of watercourses. You do not need planning permission if you use permeable materials, such as gravel, permeable concrete block paving or porous asphalt, that allow water to soak through, or if the rainwater is directed to a lawn or border to drain naturally.

Planning permission is required where you intend to pave more than five square metres of your front garden using non-permeable materials. Further information is provided in the Communities and Local Government [‘Guidance on the permeable surfacing of front gardens’](#).

Further information is available through the Royal Horticultural Society’s report on paving, depaving and planting of front gardens to reduce flood risk: [Gardening Matters](#).



**Example of Greening the Grey in Lambeth - Bird Walk Alleyway, Kennington**

Lambeth residents identified Bird Walk Alleyway as an area that would benefit from greening measures. Previously hard surfaced, planting areas were implemented and the surface re-graded to shed surface water into the planting areas. Working with Lambeth Council, the community and the local school undertook the planting and will maintain this planting in the future.



*Bird Walk Alley Way before Scheme*



*Bird Walk Alley Way after scheme*

**Green Roofs or Living Roofs**

Green roofs or living roofs are roofs that have been intentionally greened with vegetation, normally with hardy plants such as sedums. They can be installed on new or existing buildings, even on garden sheds, or can be planted vertically to create a green wall. They provide a range of benefits by reducing rainwater run-off, absorbing rainwater, supporting biodiversity and providing local cooling. They reduce the quantity of runoff by holding water and encouraging its release through evaporation. They also improve the quality of run-off by filtering contaminants.

Lambeth Council has been working with residents and local businesses to implement green roofs across the borough and provide green roof capacity training, through the support of [The Urban Wild Project](#), which was set up to green roofs of businesses in Herne Hill.

Further information is available from:

- [LivingRoofs.org](#) – an independent resource on green roofs in the UK,
- [The Green Roof Centre](#) – set up and run by the University of Sheffield, including research on green roofs and directory listings,
- [The Green Roof Guide](#) – produced by Groundwork Sheffield and others, it provides a guide to green roofs, their benefits, design, construction, planting and maintenance, and
- [Living Roofs and Walls](#) – a technical report produced by the Greater London Authority to support the London Plan Policy.

**Rain Gardens**

Rain gardens are gardens with a purpose, designed to reduce surface water run-off. They are sunken, flat-bottomed garden beds which collect rainwater from rooftops, driveways, pavements, parking areas and roads.

The advantages of rain gardens arise from:

- reducing flooding through absorbing rain water from hard surfaces,
- filtering oil, grease, and pollutants, and

- recharging groundwater aquifers by allowing water to soak into the ground and providing beneficial wildlife habitat.

They are planted up with flowers and shrubs capable of coping with occasional submersion. If you disconnect your downpipes and divert the water into a rain garden you will also qualify for a reduction in your sewage treatment payment to Thames Water.

Further information on Rain Gardens, their functions and implementation is available through the [Rain Garden Guide](#).

### Rain Garden Example in Lambeth – Lambeth Green Streets (Ardlui Road & Chatsworth Way)



*'On-Street' Community Engagement at Ardlui Road & Chatsworth Way Green Streets (October 2012)*

Ardlui Road and Chatsworth Way, located in Thurlow Park, are identified as an area of higher risk in Lambeth's Surface Water Management Plan (SWMP).

Building on options identified through the SWMP, Lambeth Council are working with residents to improve surface water management, deliver green infrastructure and improve the local streetscape in and around Ardlui Road and Chatsworth Way. The scheme includes introducing rainwater gardens into the public highway using the Sustrans DIY Streets approach to community engagement.

The scheme is being taken forward through a series of community engagement 'On-Street' events with residents to gain their input and buy-in to the proposed designs whilst raising awareness of flood risk and resilience measures with residents.



*Public Involvement in Decision Making for Ardlui Road & Chatsworth Way Green Streets (November 2012)*

Further information is available on [Lambeth Green Streets](#) through the [Susdrain Website](#).

### Water Conservation Measures

Water use is likely to increase across Lambeth in future years as a result of new development and changing customer behaviour. As well as reducing water use to ensure water availability for future generations, managing and reducing water usage can deliver a reduction in the wastewater entering the sewer system to provide an increased level of capacity to accept and mitigate the impacts of surface water flooding.

Water conservation measures include measures such as water butts, low-flush devices for toilets, tap aerators, flow controls for showers and re-use of cleaned washing water for flushing toilets. They can also include behavioural and lifestyle changes, such as turning off the tap when brushing teeth and taking shorter showers. [Waterwise](#), a UK NGO focused on decreasing water consumption in the UK, provide further information on water saving measures that you could consider for your home through their website.

Thames Water provides a number of water saving devices free to their customers, including showerheads and save-a-flush devices. Further information on the products and how you can order them is available through their [website](#). Their [Waterwisely Water Saving Community](#) interactive website provides further information on water saving devices, calculations of how much water you use, water saving tips and a facility to report a water leak.

Lambeth Council provide water butts (at a discounted price), which can be used in your garden to store run-off from roofs of houses, greenhouses and sheds. Further information is available through the [Lambeth website](#).

### Reducing Fats, Oils and Greases in Sewers

Sewers are designed to take away wastewater, toilet tissue and human waste. All other material and products (liquid or solid) should be disposed of in the bin. Most sewer blockages are caused by cooking fat and oil which congeal in the sewer forming a thick layer around the pipe. This prevents sewage, and surface water where combined sewers are present, from flowing and can cause them to back up and cause flooding in homes and streets, and has an impact on the environment.

Thames Water are running a '[Bin it – don't block it](#)' campaign to educate people about 'sewer abuse', which is putting anything other than human waste or toilet tissues down drains.

You can help to prevent blockages in drains and sewers and prevent flooding by:

- Not putting cooking oil, fat or grease down the sink or any drain,
- Bottling used cooking oil for recycling – Lambeth has three collection points in Norwood, Brixton and Streatham for bottles containing used cooking oil,
- Allowing grease and fats to set before placing into bin bags,
- Scraping or wiping plates, pans and utensils prior to washing to remove food and grease and put into bin for collection,
- Keeping oil and grease out of washing up water,
- Using strainers in sink plug holes and put any collected debris in the bin,
- Not sweeping solids into floor drains or manholes, and
- Keeping floors or ground level surfaces free from spills, waste, fat and grease.

## What is Lambeth Council doing to address local flood risk?

### *What is the council doing to help reduce the risks?*

Since becoming a Lead Local Flood Authority in April 2011, we have been working with communities, businesses, neighbouring boroughs and Risk Management Authorities to deliver local flood risk management for Lambeth.

This production of the Lambeth Local Flood Risk Management Strategy provides the first opportunity for us to outline our ongoing and future local flood risk management activities. We will eventually provide a rolling programme of affordable, funded schemes and initiatives which will help to reduce flood risk in Lambeth.

A key aim of our future local flood risk management activities is to **build community resilience through empowering communities to help themselves**. We have already been working with residents to reduce flood risk and improve community resilience including;

- Piloting the concept of 'depave' in Kennington,
- Supporting Urban Wild Project to work with businesses to provide and install green roofs on the shops along Norwood Road and Railton Road,
- Delivering workshops to build capacity within Lambeth for residents and groups to deliver green roofs themselves,
- Engaging residents in the design and implementation of Rain gardens along Chatsworth Way and Ardlui Road in Thurlow Park,
- Resurfacing and installing planting areas with the community and the local school in Bird Walk Alleyway in Kennington, and
- Engaging residents in the development of the Local Flood Risk Management Strategy and seeking their comments on future flood risk priorities.

### *How will Lambeth work with residents to deliver flood risk management?*

We will continue to work with residents to deliver local flood risk management over future years:

- Through implementing the Local Flood Risk Management Strategy to develop a long-term programme for taking schemes forward and share best practice with our residents through our website,
- Engaging with residents where we are proposing to take flood mitigation schemes forward to ensure that local concerns are taken into account and solutions developed that benefit the local community,
- Collecting information on historical flood events and flood risk from residents to ensure we have a robust evidence base for flood risk across Lambeth and can target efforts to those communities most at risk or most vulnerable, and
- Supporting residents who are looking to take forward individual and community level measures that will improve resilience to their properties and reduce flood risk in their area.

## How can I find out further information?

There are a number of websites and organisations which provide further information on flood risk and resilience. Links to these and descriptions of the type of advice they offer are provided below.

- [Lambeth Council](#) - as the Lead local Flood Authority for Lambeth, the Council can provide information on surface water and groundwater flood risk and measures being taken forward to address these. They will also be able to offer advice on best practice and property resilience.
- [The Environment Agency](#) - issue flood warnings and provide advice on preparing and responding to flooding. Use this website to find out if you live in an area at risk of fluvial flooding.
- [Thames Water](#) - as the water company serving Lambeth residents, information is available on reporting sewer flooding and flooding from burst pipes or leaks, as well as measures available to customers for conserving water.
- [The Met Office](#) - one of the leading providers of environmental and weather related services which provides weather warnings for the next five days.
- [National Flood Forum](#) - a not for profit organisation which provides information and advice to people at risk of, or who have been flooded. They have produced The Blue Pages, a directory of service goods or providers relating to flooding and advice on making homes flood resilient.
- [Flood Protection Association](#) - an independent and non-commercial organisation who promote the advantages of Flood Protection for the benefit of all those affected by flooding. The website provides information on flooding and flood protection measures.
- [DirectGov](#) - information and advice on who to contact in the event of a flood, protecting your home and belongings from flood damage and what to do if a flood happens.
- [Health Protection Agency](#) - provide health advice following flooding.
- [The Association of British Insurers](#) - can provide advice on insurance issues relating to flooding.
- [Susdrain](#) - provide up-to-date guidance, information, case studies, videos, photos and discussion forums that help to underpin the planning, design, approval, construction and maintenance of SuDS.