How you and your community can reduce pollution and prevent flood risk

in partnership with

Haringey Council

in partnership with

Environment Agency

Love the Lea

THAMES21

Charity number 1103997

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In partnership with Haringey Council

In partnership with Environment Agency

Love the Lea

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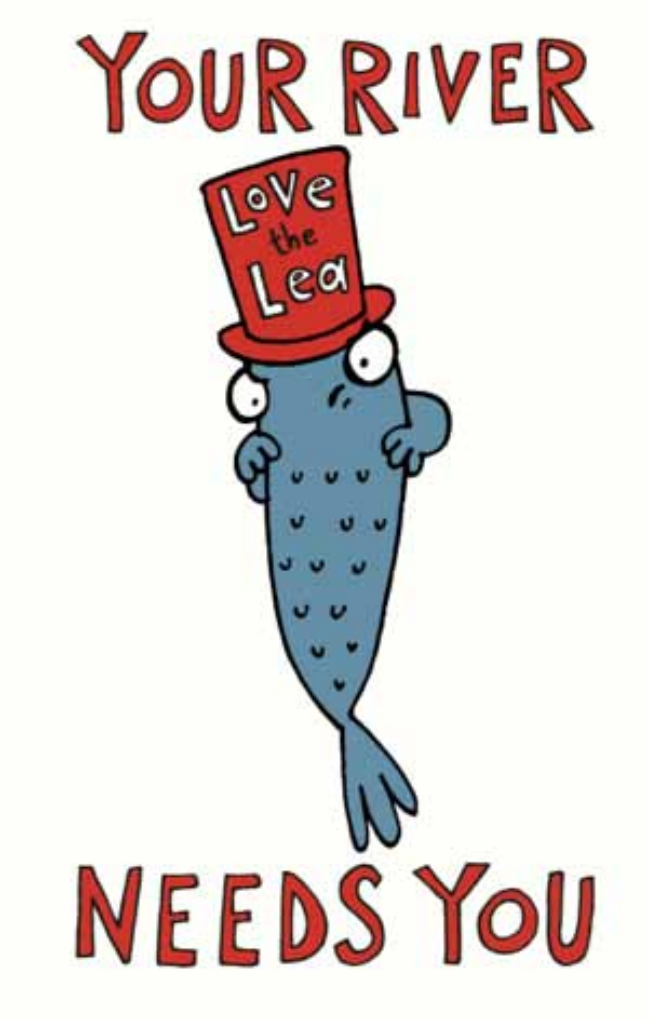
Greenstreets@Haringey is a partnership project with the London Borough of Haringey, Thames21 and the Environment Agency that aims to show how river pollution can be cut and the risk of surface water flooding reduced with community participation.

Thames21 are London's leading waterway charity, working to improve London's rivers for people and wildlife.

Love the Lea is a Thames21 campaign to make the River Lea and its tributaries healthy, working with communities to take practical action.

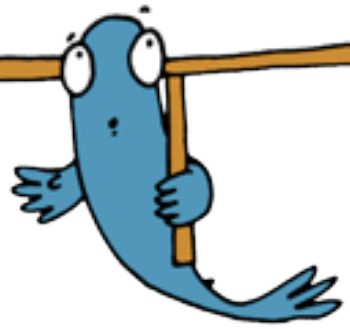
The Environment Agency is a Government body who work to create better places for people and wildlife, and support sustainable development.

The London Borough of Haringey is the Lead Local Flood Authority.



DID YOU KNOW?

- Your local river is heavily polluted
- You could make a difference to prevent pollution and also reduce the risk of flooding in the borough



Haringey's Lost River: The Moselle

The River Moselle flows through the borough from Queens Wood, Muswell Hill to Markfield Park, South Tottenham where it meets the River Lea. The river is mostly hidden underground and has become lost and forgotten.

A section of the river was opened up in Lordship Recreation Ground in Summer 2012 as part of a £5 million renovation scheme for people to enjoy. However, this has brought attention to the problems that the Moselle suffers.

Clockwise from top left

- Source of the Moselle, Queens Wood
- Hidden channel behind Rivulet Road
- Where the Moselle joins the Lea; behind a protective barrier to prevent pollution entering the Lea
- The River Moselle hidden in a pipe beneath Moselle Close

The river is severely polluted by sewage fungus. Sewage fungus (Sphaerotilus) grows when there is sewage being discharged into the river. It coats the plants in a white film and causes a reduction in the amount of oxygen in the water making it impossible for fish to survive.

Further scientific tests show that the river has unnaturally high levels of phosphates and nitrates. These chemicals are found naturally in the water cycle, but the levels we see in testing are a cause for great concern. High levels of these chemicals encourage excessive plant growth, starving the water of oxygen which fish need to survive.

These chemicals are present in our household detergents and cleaning products. They end up in our rivers through misconnected plumbing. The chemicals also drive out fish and insects.

Clockwise from top left

- Pollution warning in Lordship Recreation Ground
- Sewage fungus
- Polluted culvert in Tottenham Cemetery

How pollution happens

Misconnections

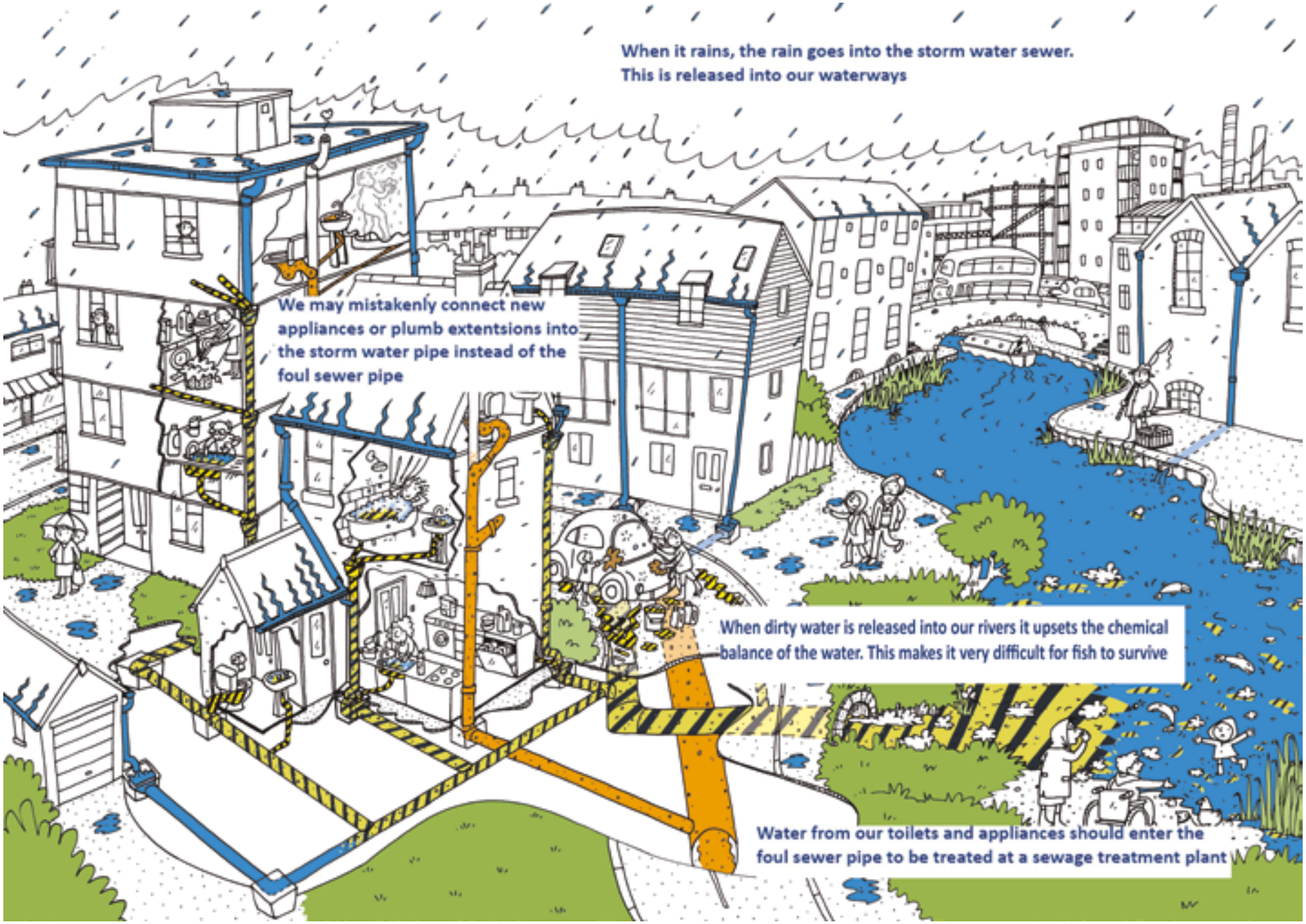
Water from your sinks, appliances and toilets should go into the foul sewer pipe where it is taken to a sewage treatment works. Rain water goes into the storm water pipe which goes to a river or a stream.

When appliances are plumbed into the storm water pipe, dirty water is discharged into a river and causes lots of problems. Unnaturally high levels of chemicals like phosphates and nitrates knock the river out of balance, causing the wrong plants to grow and allowing bacteria to thrive.

Plumbing misconnections are usually easy to fix and are the responsibility of the property owner. If you do not fix a misconnection, you could face fines of up to £20,000.

Thames Water has identified a total of 2,364 misconnected properties with Haringey of which to date 1,533 have been rectified. As water and sewerage companies do not have powers to enforce rectification of misconnections approximately 450 have been passed to Haringey Council to pursue rectification.

From 2010 - 2015 Thames Water has committed to improve the water quality at 15 storm water outfalls across the Borough of Haringey. Key projects that Thames Water are currently working on are Stonebridge Brook and Lordship Recreation Ground, both these catchments have extremely large upstream surface water both containing 20,000 properties each.


When it rains, the rain goes into the storm water sewer.
This is released into our waterways
We may mistakenly connect new appliances or plumb extentsions into the storm water pipe instead of the foul sewer pipe
When dirty water is released into our rivers it upsets the chemical balance of the water. This makes it very difficult for fish to survive
Water from our toilets and appliances should enter the foul sewer pipe to be treated at a sewage treatment plant

Pollution from our roads

We don't often notice it, but our cars deposit traces of heavy metals and oil onto our roads.

Brake pads contain copper which is toxic to river fish. Tyre wear releases zinc, and oil attracts traces of metals such as iron, cadmium and aluminium.

Every time it rains this pollution is washed into the storm water pipe that goes to a river. Our roads are part of a river system.

SPOT POLLUTION?

Report it!

Call the Environment Agency on **0800 80 70 60**

Top to bottom

- Dead Rainbows wash into our rivers every time it rains
- Oil and heavy metals on our roads get into rivers through the surface water pipes
- July 2013 saw the deaths of thousands of fish in the River Lea following a short storm after period of dry weather and the build up of pollution on our roads

Flood risks in Haringey

As well as water pollution, we are also concerned about flooding. Surface water flooding occurs when our drainage systems are unable to cope with heavy rainfall. There is little opportunity for water to soak into the ground as many of our surfaces have been paved over; so water remains on the surface.

The London Borough of Haringey has identified 9 Critical Drainage Areas (CDA) that are at risk of surface water flooding in the event of severe storms.

Low lying, paved areas are most at risk of surface water flooding in the form of ponding.

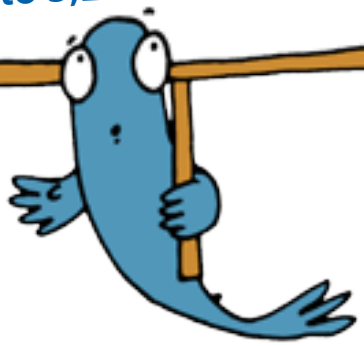
Properties higher up in the area may also experience flooding if they are on the flow pathway.

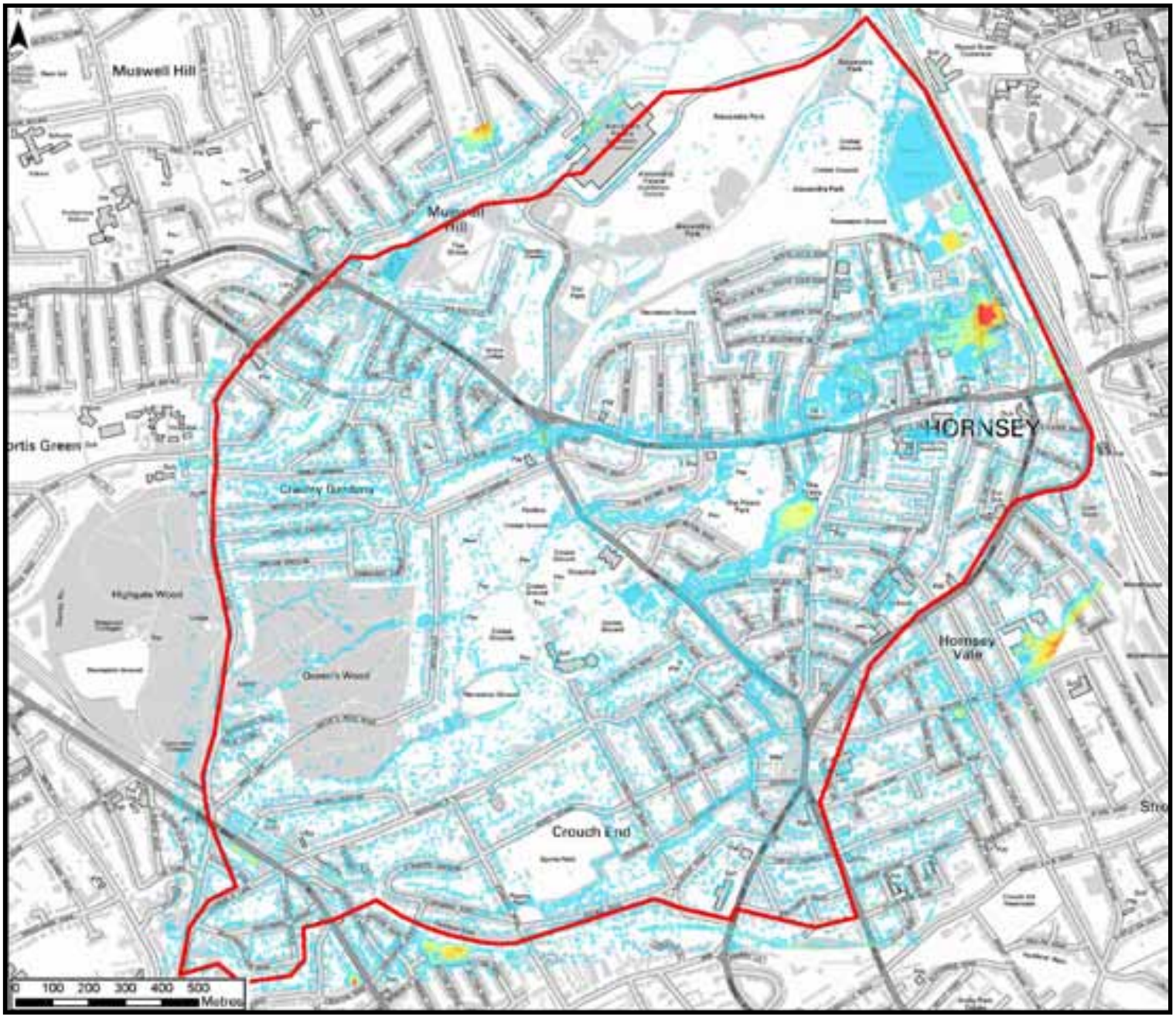
As small green spaces are paved over and the effects of climate change increase, the risk of surface water flooding rises. We need to take action to reduce risk.

The map overleaf shows where ponding is most likely to occur, the flow pathways of rain and the buildings at greatest risk of flooding.

DID YOU KNOW?

- The London Assembly has found that almost a quarter of the front gardens in South-East England are now completely paved over - an area equal to 5,200 football pitches!





Legend

Depth (m)

- 0.00 - 0.10 (NOT SHOWN)
- 0.10 - 0.50
- 0.50 - 1.00
- 1.00 - 1.50
- 1.50 - 2.00
- 2.00 - 2.50
- 2.50 - 5.00

London Borough of Haringey

Haringey CDA - Area 055

1% Annual Exceedance Probability
Pluvial - Depth

Map taken from Tier 3 Drain London Report LB Haringey

How we can prevent pollution and reduce flooding

Turning grey streets into green streets

Sustainable Drainage Systems (SuDS) are a natural way of managing urban drainage, especially around properties.

In urban areas, most surfaces have been paved over, which makes it much harder for water to naturally soak away. This results in standing water and an increased risk of flooding. SuDS are effectively creating spaces to attenuate storm water and filter pollution.

- A street without SuDS : When it rains the rain water enters our storm water pipe taking our road pollution with it and emptying out in our rivers and killing our fish.

Rainwater Harvesting

Installing a water butt on your property is a very easy way to reduce the flow of the water and also the amount that enters the sewers and watercourses during periods of heavy rainfall. You can use this water, for example to water your garden or to fill a bird bath.

Rain Gardens

Rain gardens are designed to catch the rain water before it enters the drainage system. They provide areas that water can soak into and can help to remove pollution. Rain gardens are also a great source of food and habitat for wildlife. They can improve the appearance of your property and local area.

Permeable Surfaces

A paved front garden or driveway increases the amount of water and road runoff reaching our rivers and overwhelming our sewers. This can be prevented by using alternatives to hard paving which are sometimes cheaper and more attractive, such as using gravel, permeable asphalt or permeable block paving, which slows down the speed of the run-off water into the drainage system, so reducing the risk of flooding others.

- A street with SuDS. Rain soaks into Sustainable Drainage Systems, preventing road pollution entering our rivers.

Green Roofs

This technique uses plants to provide temporary storage of rainfall and minimises runoff from roof areas. Green roofs vary in type from roof gardens, roof terraces and green walls. Green roofs can reduce the amount of runoff through water use in the form of uptake by the plants.

Use Water Wisely

To help you use water wisely Thames Water have a great range of free water saving devices that can be easily installed around your home. By reducing the amount of water you use in your home you can reduce the amount of waste water entering the sewers; it could also save you money on your water bill. Thames Water have also teamed up with Save Water to offer Thames Water customers savings on water butts.

Flood Resilience and Prevention

If you are at risk of flooding you should:

- **Develop a Community Flood Action Plan**

  Being prepared in the event of a flood can help to reduce stress and panic.
- **Property level protection measures such as:**

  Floodboards

  Covers to seal airbricks

  Fitting non-return valves to drains and water inlet pipes

  Sandbags
- **Ensure that any flood resilience items you purchase have the BSI Kitemark**
- **Protect important items like insurance documents, items of personal value, your car and your pets**

If you live on a flow pathway you could help to reduce the amount of water reaching ponding zones by:

- **Installing mitigation and attenuation devices on your property such as**

  Rain water harvesting/water butts

  Rain gardens

  Green roofs

  Permeable surfaces

If you would like to get involved in the development of a Flood Action Plan for your community please email **frontline@haringey.gov.uk**

Your Personal Flood Action Plan

FLOOD PLAN

Community or group

Address

Areas at risk of flooding near me are

What can I do to be prepared in the event of a surface water flood?

What can I do to reduce the risk of surface water flooding to my property?

Make a personalised flood plan

www.apps.environment-agency.gov.uk/flood/151256.aspx

Useful Websites and Phone Numbers

Environment Agency Pollution Hotline	0800 80 70 60
Floodline	0845 988 1188
Haringey LLFA	frontline@haringey.gov.uk
Connect Right	www.connectright.org.uk
UK Rain Garden Guide	www.raingardens.info
Susdrain	www.susdrain.org
Thames21	www.thames21.org.uk/greenstreets
Love the Lea	www.facebook.com/lovethelea

You can order your free water saving devices here

www.thameswater.co.uk/home/540.htm

www.thames.savewater.co.uk

For more information or if you would like to get involved contact

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