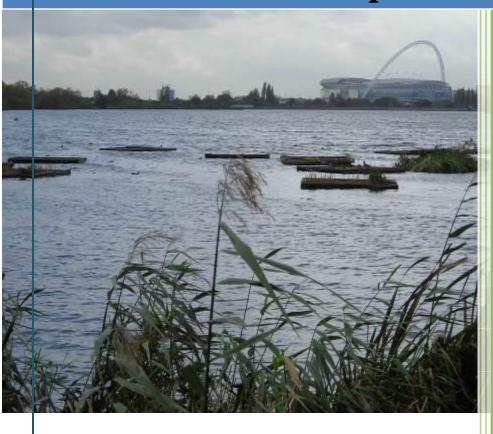
2014

# Brent Catchment River Improvement Plan



Produced by

Brent Catchment Partnership

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# **The Brent Catchment Partnership**

The Brent Catchment Partnership is a group of organisations who are committed to improving the rivers in the Brent catchment. The Partnership is not an organisation in its own right, but an informal network where members can share information, make plans and work together. The members - charities, community groups, borough councils, private businesses and government agencies -

have been meeting regularly since 2010 and will keep working together to raise funds in order to carry out many of the actions in this Plan.

## **Steering Group**

London Borough of Ealing

London Borough of Harrow

London Borough of Hounslow

London Borough of Brent

London Borough of Barnet

London Invasive Species Initiative

London Wildlife Trust

Thames21

**Thames Water** 

**Environment Agency** 

**Thames Rivers Trust** 

## **Wider Partnership Members**

Natural England

Zoological Society of London

Herts & Middlesex Wildlife Trust

Queen Mary, University of London

University of Middlesex

Welsh Harp Conservation Group

Connect Plus Services

Canal & River Trust (Former British Waterways)

Brent River and Canal Society

All London Green Grid

Professional facilitation for workshops to develop this plan was provided by Penny Walker of Interact Networks.

#### **Vision**

Our Vision is to improve and enhance the rivers within the Brent Catchment, making them cleaner, more accessible and more attractive, to benefit local communities and wildlife.

We are working towards these outcomes in the fight against pollution:

- By 2021, water quality in the Brent catchment has improved and has a 'moderate' ability to support wildlife
- By 2027 it will have a 'good' ability to support wildlife

We are working towards this outcome to make our rivers more natural:

 To transform up to 10 kilometres of heavily modified river to a more natural condition by 2021

We are working towards these outcomes to manage invasive species:

- Decrease density and distribution of invasive non-native species in chosen locations by at least 20% by 2021
- Giant Hogweed to be under a management programme in all parks, reserves and pathways by 2015

We are working towards a range of outcomes, including:

- To complete a 24-mile riverside trail from Barnet to Brentford on the Thames
- To create or improve 12 miles of riverside access for walking, cycling and the disabled throughout the catchment
- To create at least two new green spaces along waterways in the Brent catchment by 2021

Delivering these outcomes will help to support local regeneration by making the area cleaner, greener and a more attractive place to live, work and start a business. These outcomes will help to improve the quality of life for everyone who lives in, works in or visits the area.

And our rivers will be able to cope better with extreme weather events that we know will happen more often as our climate changes.

# **Key Facts about the Brent Catchment**

The 'Brent catchment' does not refer just to the borough of Brent but takes in parts of seven London boroughs. It covers a wide area of north and west London where all the rain that falls drains into the river Brent and its tributaries.

In North and West London the Dollis Brook, the Edgware Brook, the Silk Stream, the Wealdstone Brook and the River Brent all flow together within the Brent catchment.

There is a large number of man-made structures along the watercourse including 64 weirs, 196 bridges, 117 culverts and one aqueduct.

The Grand Union Canal and the Brent Feeder Canal are completely artificial watercourses and the Brent Reservoir is an artificial lake, created by a dam that was constructed to feed the Grand Union Canal.

The Brent Reservoir and Bentley Priory at the start of the Edgware Brook are both Sites of Special Scientific Interest (SSSIs).

The River Brent itself is only 16 kilometres long, but its tributaries total another 66 kilometres.

The Brent catchment falls 60 metres in height over 30 kilometres from source to the Thames. The land is steeper in the north and gets flatter as it nears the Thames.

The layer of rock lying beneath the whole of the Brent catchment is London Clay, which once it is fully saturated with water, cannot absorb any additional water. This means that the water level in the rivers can change rapidly. A significant quantity of water will still adhere to vegetation; and over the course of a year's seasons, the London Clay will absorb and hold a considerable volume of that rain water in the space above the permanent water table. Also green spaces rather than concrete and tarmac, provide opportunities for ponds, swales and other features that can temporarily hold water. The total land area that ultimately drains into the Thames via the Brent is approximately 175 square kilometres.

There are seven flood storage areas: five on the Silk Stream, and two on the River Brent.

## The Water Framework Directive

Human activities are damaging our rivers, lakes and streams. This affects so many aspects of our lives that during the 1990s, the European Commission decided it was unacceptable. And so the **Water Framework Directive** (WFD) was born. It has been part of UK law since 2003.

Under the WFD, all rivers, lakes, reservoirs, streams, canals, estuaries, coastal and groundwater need to be restored to good ecological health\*. The initial deadline for achieving good ecological health was 2015, but this has proved to be an almost impossible task, so in most cases this deadline has been extended to 2021 or 2027.

Right now, all of the rivers, lakes and canals in the Brent catchment are considered to be in either 'poor' or 'moderate' ecological health. This means that we need to take action to get them back into good ecological health for the sake of people and the environment.

<sup>\*</sup> technical terms used for this are 'Good Ecological Status' and 'Good Ecological Potential'. For links to information on the WFD and ecological health, see 'Where to Find Out More' at the end of this document.

# **CATCHMENT GUIDE**

# The Brent Catchment from Totteridge to the Thames

#### The Dollis Brook

The 'Brent' actually starts its journey in Totteridge as the Dollis Brook. When it is joined by the Mutton Brook in Hendon, some 14 kilometres from its source, it is called the River Brent. It is subsequently joined from the west by three key tributaries before flowing down to Brentford where it joins the River Thames.



#### The Silk Stream

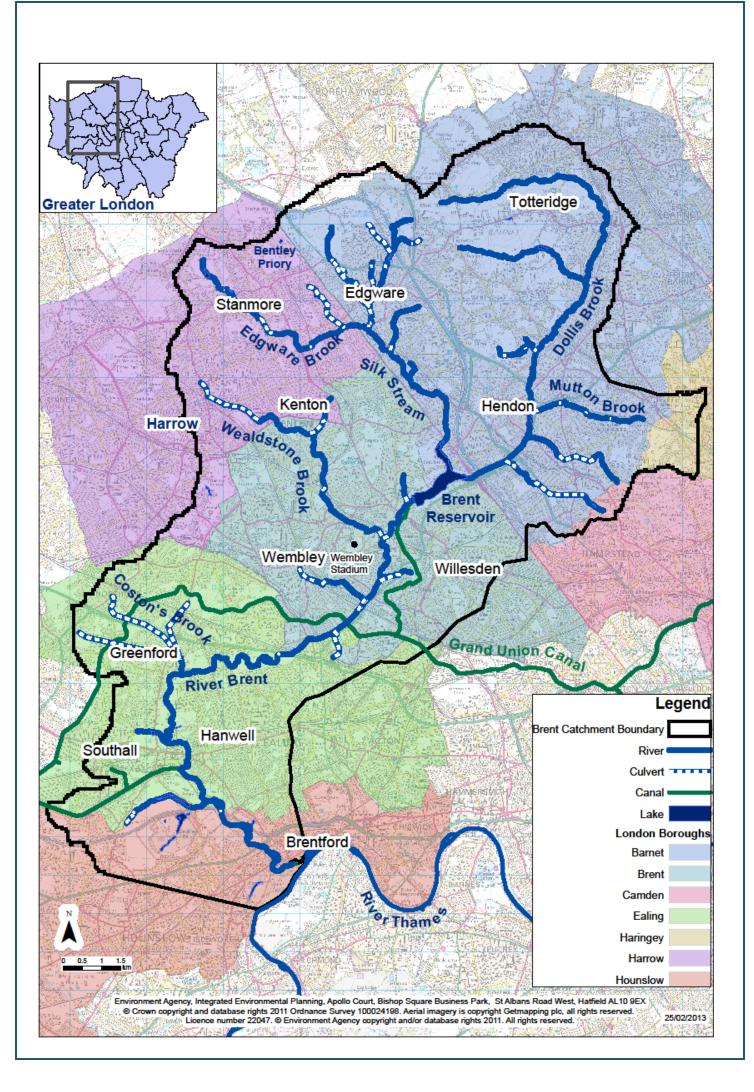
The first of these, the Silk Stream, drains water from the Edgware area. It meets the Brent at the Brent Reservoir (Welsh Harp), which is a Site of Special Scientific Interest because of its population of waterbirds.

#### The Wealdstone Brook

Not long after it leaves the Brent Reservoir, near Wembley Stadium, the River Brent is joined by the Wealdstone Brook, carrying water drained from Harrow. A little farther on it passes the Paddingtonarm of the Grand Union Canal, which crosses the catchment from east to west.

#### The Coston's Brook

Running through Ealing's 'green corridor', itis joined by the Coston's Brook, carrying water from Greenford. For the last stage of its journey from Hanwell to the Thames, the Brent is a navigable river and is combined with the Hanwell arm of the Grand Union Canal.



# **Noth West London Built Development**

Historically the river would have meandered, particularly in the upper part of the catchment, while the lower part was once extensive marshland. But as London expanded, the river suffered. The only significant stretches that still keep their original shape can be found in the open spaces along the Dollis Brook and parts of the River Brent in Ealing.

Throughout the rest of the catchment, the river has been changed out of all recognition.

There are four major railway routes, plus the M1 and the M4. Many industrial estates and dense housing developments are built right up to the edge of the river. After such a land-grab, it is no wonder much of the river is straightened, in artificial channels, or disappears from view in lengthy culverts (underground tunnels) like those beneath the A40 and North Circular Road, or under major railways near Neasden and Stonebridge. There are a great many other structures too like bridges, outfalls (drainage pipes), weirs, and even an aqueduct.

Development has changed the way that water drains into the river. There is greater risk of flooding as the rain runs rapidly off roofs, concrete and tarmac and finds its way more quickly into the rivers via a vast network of drains. This has led to the river being over-engineered in places to contain it. The surface runoff of rain takes with it all the contaminants it collects on the way (including pollutants like diesel from roads), and can overload the sewer system, adding to other pollution problems from industry and homes.

The legacy we have inherited is a polluted and heavily modified river with a great deal of unnatural bed or bank. There Is little room for wildlife in or around the river, plus many barriers to movement up and down. Where there is habitat for wildlife, it has to compete with invasive species (plants and animals that have been introduced by humans). People have limited opportunities to visit and enjoy the river or natural areas around it.

# Wildlife sites

There are a number of non-statutory wildlife sites in the Brent catchment, both those on/adjacent to the river and within the wider terrestrial catchment. These Sites of Importance for Nature Conservation (SINCs) were first identified by the London Wildlife Habitat Survey in 1984-5 (by London Wildlife Trust on behalf of the Greater London Council), and have been updated and audited through subsequent surveys.

# **Sites of Special Scientific Interest**

Brent (Welsh Harp) Reservoir for its birds

Bentley Priory for its meadow flora.

Harrow Weald SSSI stand on the catchment edge is likely linked to the catchment's hydrology



Brent (Welsh Harp) Reservoir for its birds



Bentley Priory for its meadow flora.

# **Sites of Metropolitan Importance**

The Totteridge Fields complex (bordering the Upper Dollis Brook)

Stanmore Country Park,

Stanmore Golf Course,

Fryent Country Park

and small stretches of the Grand Union Canal.



The Totteridge Fields complex (bordering the Upper Dollis Brook)

# Site of Borough Importance

Stretches of the Dollis Brook, Deans Brook, Edgwarebury Brook, Silk Stream, and the Brent River and in some cases include broader parts of the river plain (for example Brent River Park and Stanmore Marsh).

# **Sites of Local Importance**

Parts of the Brent River and the Mutton Brook are of Local Importance.

Significant stretches of the Brent and its tributaries, however, are not identified as having much nature conservation value at present.

# ISSUES AFFECTING THE CATCHMENT, MITIGATION BASELINE AND OBJECTIVES

# **Reducing Pollution**

Every river and canal in the Brent catchment is subject to some level of pollution. The signs of pollution are so common in some areas that they have become part of the normal scenery. More needs to be done to tackle pollution and improve the health of our rivers and canals.

The following outcomes for water quality in the Brent catchment have been identified:

- By 2021, water quality in the Brent catchment has improved and has a 'moderate' ability to support wildlife
- By 2027 it will have a 'good' ability to support wildlife

To achieve these ambitions, pollution must be stopped from entering the rivers from the many existing and any new sources.

## What is meant by a 'moderate' or 'good' ability to support wildlife

These terms are based on scientific evidence about the ability of animals and plants to grow and thrive under different conditions.

'Moderate' water quality means that:

- phosphate concentrations are 0.25 mg/l or less
- dissolved oxygen levels are 54% saturation or higher
- levels of total ammonia are no higher than 1.1 mg/l

'Good' water quality means that:

- phosphate concentrations are 0.12 mg/l or less
- dissolved oxygen levels are 60% saturation or higher
- levels of total ammonia are no higher than 0.6 mg/

#### Where does pollution come from

There are different sources of pollution in the Brent catchment. The main ones are:

#### Households -

Without knowing it, many residential households are pouring polluted water straight into our rivers due to wrongly plumbed sinks, washing machines and even toilets that have been connected to the wrong drainage pipes. When this happens the dirty water goes straight into the river instead of the sewage works.

In most parts of the UK, about 2% of homes are wrongly plumbed like this. But in the Brent Catchment this is estimated to be much higher at 8.3% of all households.

This means there are approximately 27,200 households in the catchment with illegal plumbing!

#### Industry

Factories and depots suffer from the same problems of wrongly plumbed pipes, while accidental spills can result in oils, paint, chemicals and other liquids being washed down surface water drains, straight into our rivers and canals.

#### Roads and railways

Spilled oil, fuel, anti-freeze and tiny particles from transport, such as brake linings, get washed down the drains when it rains and end up in our rivers.

#### **Combined Sewage Overflows (CSO's)**

When there is too much rain for the sewers to cope with, they are designed to overflow into the river system instead of backing up into residential and commercial properties. Unfortunately, storm overflows can also discharge sewage into rivers in dry conditions if the foul sewer becomes blocked, with fats, oils and greases (FOG) or items that shouldn't be flushed away, such as nappies, baby/hand wipes and feminine hygiene products.

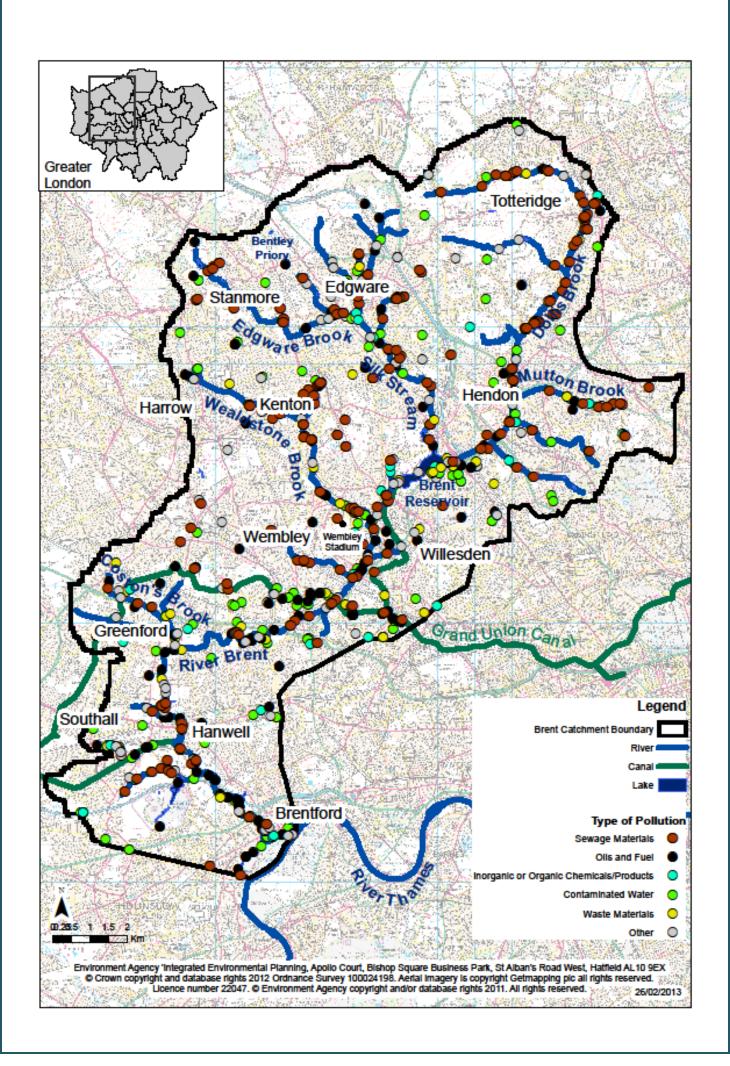
Similar problems are caused by shared inspection chambers, where foul and surface water lines run in parallel within a manhole chamber. Blockages downstream of a shared manhole can also cause sewage to overflow into rivers.

All these sources of pollution are impacting upon the health of our rivers and their wildlife, and can be a health risk for people if they come into contact with dirty water.

Changes to our climate are likely to increase these problems. During periods of droughts, pollution becomes more concentrated, while more frequent, heavier downpours will overload the sewage system resulting in more sewage overflows.



From 2001 to 2011, no fewer than 809 water pollution incidents in the Brent Catchment were reported to the Environment Agency. That's one every five days – more than one a week. Other incidents may have gone unnoticed or unreported. If you see pollution entering our rivers, report it by phoning 0800 80 70 60



## What is currently being done about pollution

#### The Environment Agency

- monitors water quality
- works with local businesses and others to identify and prevent pollution
- investigates reported pollution incidents, takes steps to stop them happening, and has the power to prosecute offenders.

Thames Water, Borough Councils and the Environment Agency are working together to find and correct misconnected drains.

The University of Middlesex measures levels of pollution as part of its research programme.

## Everybody has a role to play in reducing pollution

Detailed below are a series of measures that people, home owners, traders, organisations, land owners and Authorities can take to reduce pollution.

# Stopping misconnections and the discharge of pollutants straight into our rivers and canals:

- Make sure you know how to connect to the right drain (Look out for the new training advice on the Thames Water website)
- check home or workplace plumbing on the <u>Connect Right</u> website
   (<a href="http://www.connectright.org.uk/check-your-existing-connections/">http://www.connectright.org.uk/check-your-existing-connections/</a>) or on the Thames Water website ((<a href="http://www.thameswater.co.uk/help-and-advice/8198.htm">http://www.thameswater.co.uk/help-and-advice/8198.htm</a>) and get it fixed if it is connected to the wrong drain
- 'Bin it don't block it'! Make sure unwanted materials, such as: nappies, feminine hygiene products, baby/hand wipes and cotton buds are not put down the sewer! For advice, look at the Thames Water website <a href="http://www.thameswater.co.uk/help-and-advice/9137.htm">http://www.thameswater.co.uk/help-and-advice/9137.htm</a>
- Fats, oil and grease (FOG) are a common cause of blocked sewers. It is easy to help prevent FOG blockages. When you've finished cooking, just pour the hot liquid oil into a container, allow it to set and then dispose of it in your rubbish bin.
- Ensure your rainwater drainage is flowing into the appropriate surface water drainage. Or for a more sustainable solution recycle rain water via a water butt? http://www.thameswater.co.uk/save-water/9382.htm
- Prioritisation and resourcing of the Polluted Surface Water Outfall programme with closer working between Environmental Health Officers, Thames Water and the Environment Agency.
- Discharges from Combined Sewer Overflows (CSO), although necessary, should be
  minimised wherever this is technically and economically feasible. The Environment Agency
  will work closely with water utility companies to reduce negative environmental impacts of
  CSO's through a managed programme of identification, modelling, pro-active cleaning and
  infrastructure improvements.

#### Improved land and network management

- Land can be better managed in a way that improves water quality. Review how your land management may impact water quality, and consider reducing your use of harsh chemicals, pesticides and herbicides.
- Prioritise Sustainable Urban Drainage Systems where they will be most effective at filtering out pollutants from water before it reaches our rivers
- Organisations can work with Thames Water and the Environment Agency to gather information and take action on pollution from road and railway track drainage

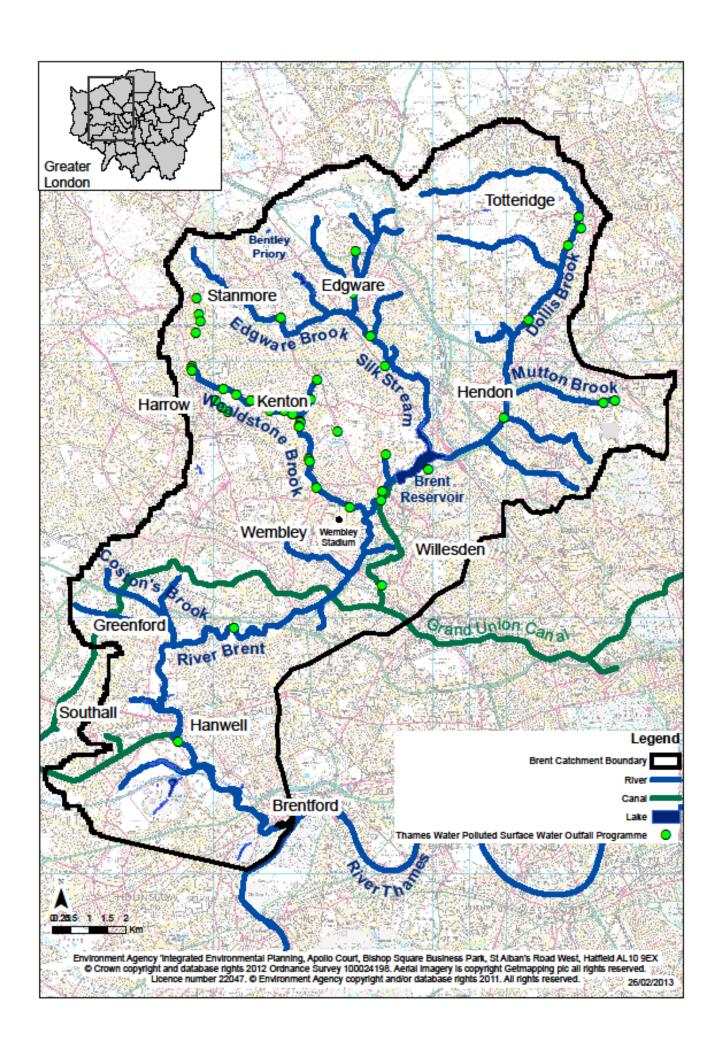
#### **Business Management**

- Make sure you know how your drainage works and how to maintain it properly
- Make sure you're aware of how to prevent pollution and have a plan you can put into place
  if a spill happens. (To get started, you can use the pollution prevention advice and guidance
  leaflets here: http://www.environment-agency.gov.uk/business/topics/pollution/39083.aspx)

#### Raising awareness and getting involved

- Look out for pollution when you are near the rivers and canals, and report it to the Environment Agency on 0800 80 70 60
- Get involved in campaigning and spread the word to your neighbours, residents' association, place of worship, community centre, clients and colleagues
- Sponsor a pollution awareness campaign
- Get involved in monitoring pollution and its effects on invertebrate, plant and fish populations

Website, Facebook, Flickr, Twitter, posters, walks, Council publications, school visits, public events, talks for local forums, Residents' Associations, Rotary Clubs, places of worship are some opportunities for raising awareness about pollution.



# Making rivers more natural

The rivers within the Brent catchment have been physically changed over time to make room for homes, businesses and transport networks. They were changed again to manage the increased risk of flooding. As a result they have become detached from communities, and are less natural. But city rivers can once again become attractive natural waterways at the heart of their communities. Recent river restoration and biodiversity projects have demonstrated how this can begin to happen more widely.

By working together we can help our local rivers look and behave more naturally to attract and support a wider variety of wildlife.

The following outcome for naturalising rivers in the Brent catchment has been identified:

• To transform up to 10 kilometres of heavily modified river to a more natural condition by 2021

#### This will involve:

- removing unnatural structures such as weirs and wooden, steel or concrete bank and bed reinforcements, where they no longer serve a purpose removing or bypassing barriers to fish passage, such as weirs
- creating new and enhancing existing wetland habitats within the river corridor
- improving the presence of native aquatic plants and wildlife by restoring natural physical habitats throughout the river corridor
- making the river more sustainable to manage high flows and combat the problems of flooding and extreme weather associated with climate change

#### Where has the river become less natural

Straight concrete channels provide very poor habitat for wildlife

Many weirs, like this one at Hendon Lane, stop fish from moving up and down the river

Timber 'toe-boarding' is unnatural too – but relatively easy to remove

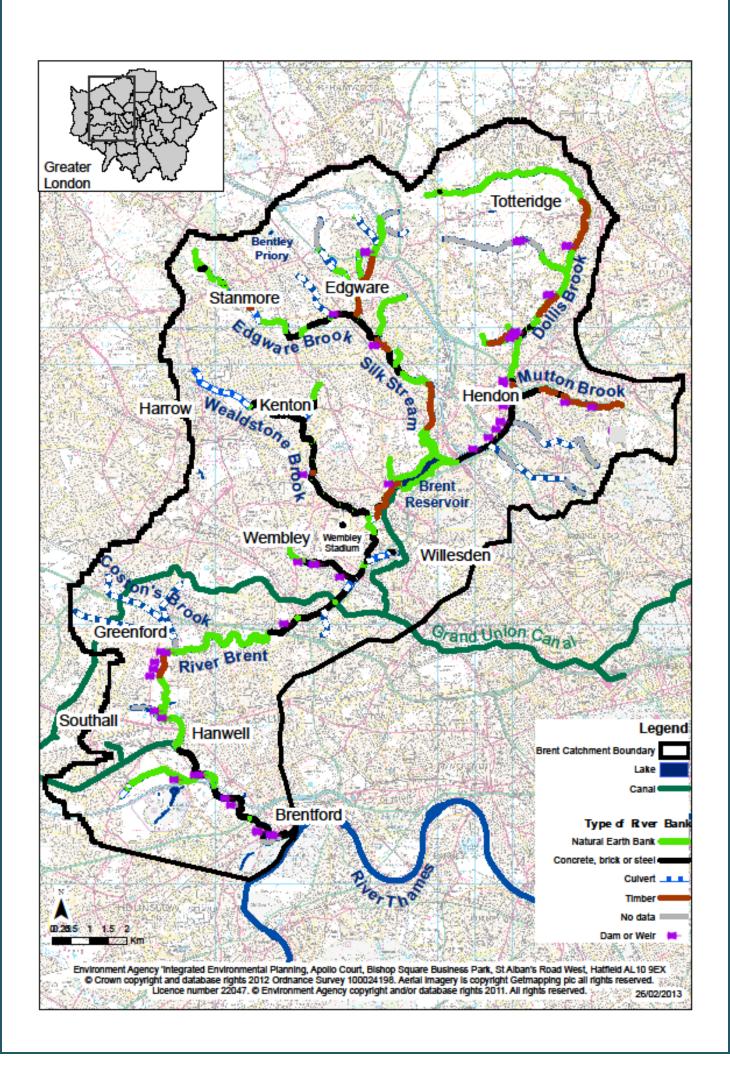
You'd never think there was a river where culverts take the river underground, like here at Brent Cross



Picture of the Dam wall D/S side of the Welsh Harp reservoir.



Looking U/S towards Brent X from the A5 Edgeware Rd.



## What has already been done to make our rivers more natural

The River Brent was trapped in a concreted channel at Tokyngton Park in 2000. A recent river restoration and habitat improvement project is Brent Council's pioneering river restoration scheme at Tokyngton Park in 2002-2003. A straight 500-metre stretch of concrete channel was replaced with winding river banks made of natural earth. Now, this stretch of river is recovering and provides better habitat for wildlife. But there is still much more to be done. Now - the River Brent winding through Tokyngton Park in Brent.



River Brent through Tockington Park a 500m section, part of a river restoration project completed 2003/4 costing £1.4m. Here the river brent was taken out of it's concrete confines and given a new slightly meandering route through the Park. Either side of the Park the river runs through culverts over 500m in length - Neasden junction (U/S) and Stonebridge junction (D/S)

The Edgware Brook at Whitchurch Playing Fields has also gone through a river restoration. Partners in the project were the Environment Agency, Harrow Drainage and Harrow Planning Departments. Works were completed in January 2014.



The Edgware Brook through Whitchurch Playing Fields after full river restoration completed in January 2014.



This river restoration has been implemented through several years since 2008.

Everybody has a role to play in making rivers more natural.

## Taking opportunities through development

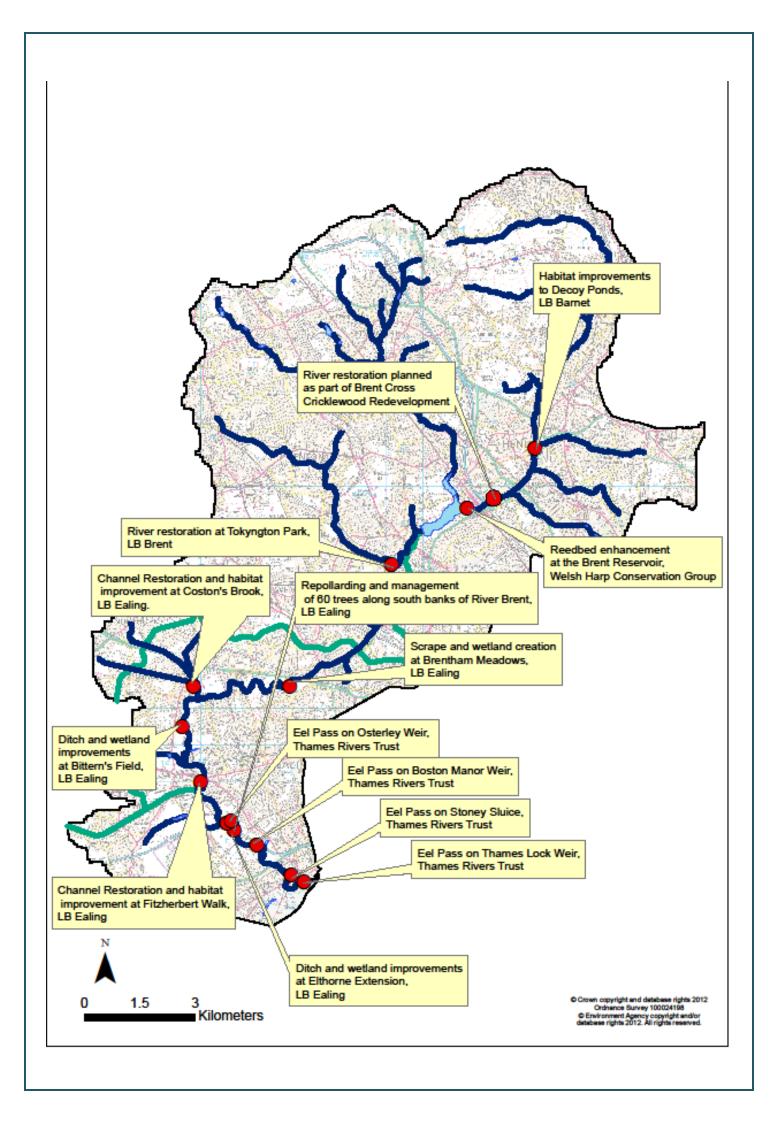
- Consult your local council planning department if you are planning any kind of development along or near a river
- Consult the Environment Agency for pre-application advice if you are planning any kind of development along or near a river. They will be able to provide advice and guidance on Flood Risk requirements, river restoration principles and Flood Defence Consent requirements
- Check the London Rivers Action Plan <a href="http://www.therrc.co.uk/lrap.php">http://www.therrc.co.uk/lrap.php</a> for river restoration projects that you could incorporate into your development
- Protect and enhance existing habitats close to the river (contact Greenspace Information for Greater London <a href="http://www.gigl.org.uk/">http://www.gigl.org.uk/</a> to find out the location of important habitats)
- Wherever possible, incorporate green roofs, natural buffer zones and Sustainable Urban Drainage Systems as part of your design
- Close liaison between borough planning departments and the Environment Agency to realise opportunities for river restoration
- Inclusion of river restoration in Community Infrastructure Levy projects
- Reinstate natural banks wherever possible and become a champion of soft engineering best practice
- Installation of natural Sustainable Urban Drainage Systems where they will be most effective in holding back heavy rainfall before it reaches our rivers
- Incorporation of the outcomes in this Plan in flood risk management., by creating and linking open spaces with rivers and improving biodiversity and habitats, while reducing flood risk.

#### **Education and research**

- There are opportunities for ongoing monitoring programme of sediments or plants for BSc or MSc students in partnership with the Environment Agency
- Speak to your Environment Agency contacts to discuss opportunities for placements or project work on river processes
- Use this document to identify a range of locations to support your environmental or geography curriculum

# Raising awareness and getting involved

- Get involved in volunteering
- If your home backs on to a river advice is available here: <a href="http://www.environment-agency.gov.uk/homeandleisure/floods/31626.aspx">http://www.environment-agency.gov.uk/homeandleisure/floods/31626.aspx</a>



# Tackling problem invasive species

## What is an invasive non-native species?

A non-native species is any terrestrial, freshwater or marine species that did not occur naturally within the United Kingdom before the English Channel was formed approximately 8000 years ago. Many of these species do not pose a threat, so are not considered to be invasive. Others may cause serious negative impact on our native species, our health or our economy. This is what we consider to be an **invasive** non-native species.

It is important to make this distinction between 'non-native' and 'invasive'. Similarly it is important to note that a native species to one country, such as Great Britain, can become invasive if introduced to an area outside its natural range.

We have legal, social and moral responsibilities to ensure that biodiversity and natural systems can continue to exist within London.

Our natural systems have evolved over thousands of years have created a delicate balance between the plants and wildlife found within them. We have changed these natural systems and caused the spread of many species that are not usually found in the London area.

Some river banks within the Brent Catchment are covered entirely by invasive non-native vegetation like the Giant Hogweed and Japanese Knotweed.

Some of these species are harmful to our local wildlife and community:

- taking valuable resources like food and shelter from our native species
- killing on our native wildlife, either for food or to defend their territories
- reducing the suitability of habitat for native species, such as degrading stream edges
- making our open spaces visually unappealing
- causing health problems

# Japanese Knotweed

(*Fallopia japonica*) has bamboo-like stems and grows in dense thickets. It is common in urban areas especially railways, roadsides and riverbanks. It is able to out-compete other species, adds to river bank erosion and causes structural damage to buildings, pathways and other built structures. Proper management is essential as it is easily spread through cutting.

# Himalayan Balsam

(*Impatiens glandulifera*) forms dense strands along river banks and other damp habitats where it out-competes native species. It can slow water flow along these rivers, increasing the chance of flooding.

# **Giant Hogweed**

(*Heracleum mantegazzianum*) grows up to 2 meters tall and forms dense stands along watercourses. It is a major concern as it can easily out-compete other species, and contact with the sap can result in blistering of the skin following exposure to sunlight.

## Buddleja

(*Buddleja davidii*) is a shrub that grows more than 2 meters tall. It thrives in cracks in canal walls and other built structures. It is fast growing and hardy which allows it to out-compete other species. It contributes to flooding by slowing the movement of water through the waterways.

The following outcomes or tackling invasive species across the Brent catchment have been identified:

- Decrease density and distribution of invasive non-native species in chosen locations by at least 20% by 2021.
- Giant Hogweed to be under a management programme in all parks, reserves and pathways by 2015.

#### This will involve:

- Completing an action plan with all major stakeholders by 2015.
- Educating the public and other relevant stakeholders about invasive species.
- Establishing a procedure to record invasive species data by the end of 2013.





Giant Hogweed

# What is already being done?

Action to control invasive species has been carried out at a local level and with varying degrees of success. The map does not show every location where management occurs, but it is a good indication. To ensure that management works are successful they need to be coordinated throughout the catchment.

Everybody has a role to play in tackling invasive species

These actions are relevant to a range of groups including community members, Boroughs and landowners.

#### Monitoring and recording:

• Get to know your local area and actively collect data on the distribution of species. Share this data with *Greenspace Information for Greater London* (GiGL).

- Share information such as current management of invasive species within the Greater London area with the London Invasive Species Initiative (LISI) to build best practice and share learning's.
- Report any high priority sites to your borough or the London Invasive Species Initiative (LISI).

#### Raising awareness and getting involved:

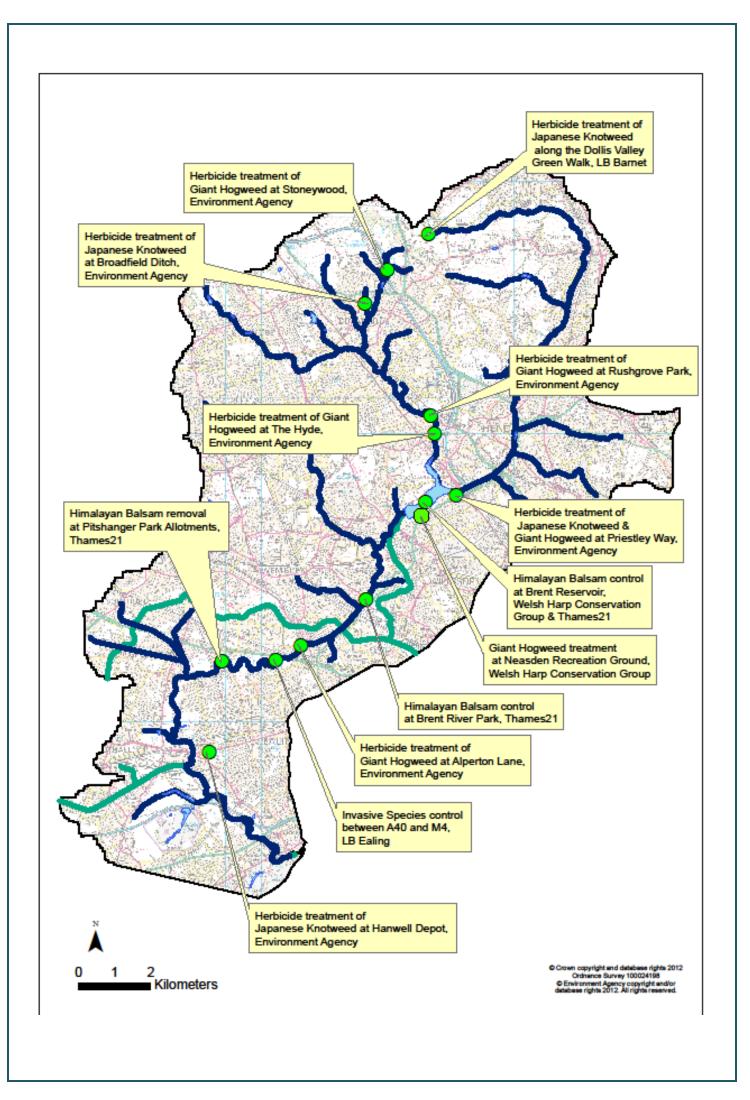
- Learn to identify common and high risk invasive species in London.
- Share information on identification of common and high risk invasive species with the community, landowners and community groups.
- Get involved with volunteer invasive species programs where possible.
- Land managers to organise and promote relevant volunteer programmes.

#### **Improved land management:**

- Where possible address invasive species in a catchment wide approach.
- Land managers to look into resource sharing with neighbouring groups if possible.
- Make sure that you dispose of all invasive species material carefully and in line with legal requirements.



Himalayan Balsam pulled by volunteer



# Creating better opportunities for access and recreation

The Dollis Brook through Barnet and the River Brent through Ealing are bordered by attractive green spaces with public pathways. Lots of people enjoy these pleasant settings for their attractive landscapes and wildlife. These green spaces contribute much to the quality of life in the city.

Unfortunately, many stretches of river in the Brent catchment are not accessible for the public to enjoy. They are blocked by buildings, roads and railways, fenced off, or buried underground. In past decades, the benefits of rivers were not properly understood or valued; today we appreciate how they can add to our quality of life. Tut hundreds of thousands of people are missing out on those benefits.

Where people can get to the river, they are often disappointed to find it spoiled by litter or fly-tipping.

## What is being done to improve access to riversides?

Many projects have increased access and recreation along the Brent and its tributaries in recent years. Some of these are shown on the map. Organisations like Thames21 and the London boroughs improve people's experience of the river by removing litter and larger items that have been fly-tipped. But more needs to be done.

The All London Green Grid (ALGG) has been developed by many organisations working together, led by the Mayor of London. The ALGG sets out a strategy and a whole series of projects for increasing access and recreation along rivers (blue corridors) and green spaces (green infrastructure) in the 'Brent Valley and Barnet Plateau'. Many of these projects will benefit people and wildlife by:

- Creating new access routes to riversides on foot or by bicycle
- Improving access alongside rivers for people to enjoy them and help to preserve them
- Providing green spaces along rivers to buffer the effects of pollution
- Creating habitats for wildlife along rivers
- Restoring riverside landscapes and heritage features
- Providing attractive new routes to work places

We hope to achieve the following across the Brent catchment area:

- Complete a 24-mile trail as close to the Brent as possible from Barnet to the Thames at Brentford
- Create or improve 12 miles of riverside access for walking, cycling and the disabled throughout the catchment
- Create at least two new green spaces along waterways in the Brent catchment by 2021

This will involve:

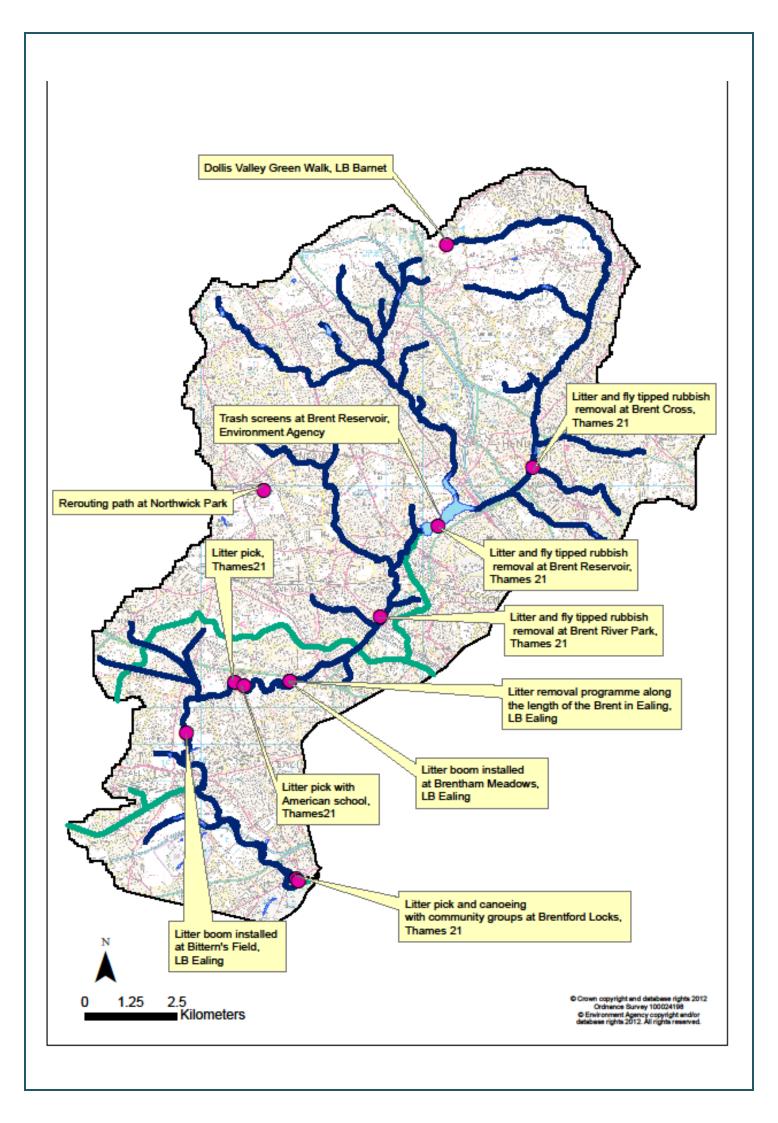
- Many organisations working together through the Brent Catchment Partnership and ALGG
   Area Forum for the Brent Valley and Barnet Plateau
- Developing green spaces with multiple benefits, to make maximum use of the land available
- Opening up new access points and pathways to reconnect people and local communities to their river.

## Anyone can get involved by

- Responding to consultation on plans to improve the riverside or green spaces
- Joining your local friends of the river or friends of the park group
- Not leaving litter in or around waterways, even if it looks like a drain or already has rubbish in
- Preventing litter escaping from your home or business on to the street, as it can go down drains and into waterways
- Reporting any littering or fly tipping to your local council

## Taking opportunities through development

 By building access and recreation along rivers and in green spaces into your planning applications, as this can increase the value of properties



# How this will happen

This Plan sets out new projects and proposals which can help to improve the river. Before the plan can move forward we must be sure of what the local community want to see happen on their river.

We have already started consulting local people about some parts of this plan. From now on we will gather the wider input of local people and organisations, so that we can then start implementing actions which they support and will help to deliver.

Many projects that could help make our vision a reality have already been identified in other plans, especially the All London Green Grid, the London Rivers Action Plan, and some boroughs' Surface Water Management Plans and Biodiversity Action Plans. The Brent Catchment Partnership will work with other partnerships, like the North West London Flood Risk Partnership and the ALGG Area Forum, to get the best for their rivers out of these projects.

Members of the Brent Catchment Partnership will promote the issues in this Plan through their own networks and activities, and will seek to incorporate them in relevant policies.

But even more must be done to deliver our vision. Many ideas for projects have been developed in the preparation of this plan. They are outlined in the table below.

These ideas for action will be most effective if people and organisations work together in a coordinated way. For some ideas to take off, different organisations will need to work together to find sources of funding.

To find out more please get in touch with francesca.campagnoli@thames21.org.uk to talk about ways of working together.

## Where to Find Out More

## **Stopping Pollution**

Connect Right <a href="http://www.connectright.org.uk/">http://www.connectright.org.uk/</a>

Oil Bank Line <a href="http://www.oilbankline.org.uk/">http://www.oilbankline.org.uk/</a>

Reporting river pollution incidents - Call the Environment Agency on 0800 80 70 60

http://www.environment-agency.gov.uk/contactus/36345.aspx

## Making rivers more natural

London Rivers Action Plan <a href="http://www.therrc.co.uk/lrap\_zoom.php?c=3">http://www.therrc.co.uk/lrap\_zoom.php?c=3</a>

River Restoration Centre's Manual of River Restoration Techniques <a href="http://www.therrc.co.uk/rrc\_manual.php">http://www.therrc.co.uk/rrc\_manual.php</a>

Greenspace Information for Greater London (GiGL) <a href="http://www.gigl.org.uk/">http://www.gigl.org.uk/</a>

Pre-application advice for planning applications from the Environment Agency <a href="http://www.environment-agency.gov.uk/research/planning/33580.aspx">http://www.environment-agency.gov.uk/research/planning/33580.aspx</a>

The London Wildlife Sites Board, chaired by the GLA, helps to inform and guide boroughs in the review of their Sites of Importance for Nature Conservation <a href="http://www.london.gov.uk/priorities/environment/greening-london/biodiversity/sites-importance-nature-conservation">http://www.london.gov.uk/priorities/environment/greening-london/biodiversity/sites-importance-nature-conservation</a>

# **Tackling Problem Invasive Species**

GB Non-Native Species Secretariat https://secure.fera.defra.gov.uk/nonnativespecies/home/index.cfm

London Invasive Species Initiative http://londonisi.org.uk/

# Creating better opportunities for access and recreation

All London Green Grid (ALGG) – Area Framework 11 - Brent and the Barnet Plateau <a href="http://www.london.gov.uk/priorities/environment/greening-london/parks-green-spaces/green-grid/area-frameworks">http://www.london.gov.uk/priorities/environment/greening-london/parks-green-spaces/green-grid/area-frameworks</a>

#### The Water Framework Directive

http://www.environment-agency.gov.uk/research/planning/33362.aspx

Getting involved in local action Volunteer with:
Canal and River Trust <a href="http://www.canalrivertrust.org.uk/volunteering">http://www.canalrivertrust.org.uk/volunteering</a>
Thames21 <a href="http://www.thames21.org.uk/projects/">http://www.thames21.org.uk/projects/</a>
Or contact your local Borough Council to find out about getting involved in a 'Friends of' group.

# **The Action Table**

In the table, projects in development have a steering group meeting regularly to take them forward.

Proposals include suggestions for actions which have not yet reached steering group stage.

It would be great if more partners could get involved in taking more action. What actions can you commit to or add to the table?

## Symbols used in the table:

Brent Catchment Action Plan Outcomes addressed:

- M Stopping Pollution
- Making rivers more natural
- **±** Tackling Problem Invasive Species
- O Creating better opportunities for access and recreation

## Other benefits:

Community involvement Adapting to climate change

Action	Who is already involved?	Who else could come on board?	What is the next step needed?	Outco mes addre ssed	Other benefit s
Projects in development – Ca	n you contribute to the	ese projects?		<u> </u>	
Brent River Park (Tokyngton Park) Phase 2 – naturalising 1km of River Brent through the park	London Borough of Brent, Environment Agency South East, Thames Rivers Trust	Other stakeholder organisations	Complete the technical feasibility study, public consultation on the preferred design, fundraising	k ± ô	****
Establish aquatic plant nursery to replenish upper reaches where plant stocks have been lost	London Wildlife Trust, Natural History Museum	London boroughs	Identify site for nursery, fundraising	k	†ŤŤ†
'Green up' 1 kilometre along the Grand Union Canal	Canal & Rivers Trust		Fundraising	k	
Brent Valley Way – signed footpath and cycleway along the route of the river	London Borough of Brent, Thames Rivers Trust	Any other stakeholder organisations	Complete the technical feasibility study, public consultation on the preferred route, fund raising	Ô	<b>††*</b>
Increase management of Himalayan Balsam through volunteers	All BCP partners	Friends of groups, general community	Establish balsam-bashing programme	±	<b>†Î\</b>
Big Brent Clean Up	Thames 21	London Boroughs, Thames 21, Canal & River Trust,	Fundraising by Thames 21	ĺÔ	<b>†**</b> *

		members of the public and			
		community groups			
		70 1			
Volunteers undertaking	Zoological Society of	Open to all	Fundraising (bid to Heritage	1.	<b>***</b> *
ecological monitoring by	London	'	Lottery Fund)	k	# II TT IT
kick sampling the Dollis			,		
brook 3 times per year					
Volunteer engaged, small					
scale habitat works on the					
main river					
Promote best practice in	London Invasive	All BCP partners	Create educational tools		
invasive species	Species Initiative	All BCF partilers	Create educational tools	±	
management through	Opedies initiative	land managers			
contractor education					
regarding hygiene and					
removal techniques					
Community education	London Invasive	All BCP partners	Create and share educational		*****
about invasive species	Species Initiative,	All BCF partilers	tool	±	† <b>İ</b> Yİİ
issues and removal	London Wildlife Trust		1001		
techniques	Zondon Wilding Trade				
Make the London Invasive	London Invasive	Environment Agency	Create, share and maintain		<b>ŤŤŤ</b>
Species Plan specific to the	Species Initiative,		information on Giant Hogweed,	±	#111 <b>11</b> 111
Brent Catchment's key	London Wildlife Trust		Japanese Knotweed and		
species			Himalayan Balsam		
Improved, ongoing data	University of	Universities	Set up a data recording forum		<b>ŶĬŶ</b>
collection for water quality	Middlesex, Queen			m	THIT
and sediments at key	Mary University of				
locations along the river	London, Environment				

corridor	Agency				
Investigate feasibility of reedbeds and other wetland habitats at intercepting pollution	London Wildlife Trust and Environment Agency	Canal & River Trust, Thames Water	Gather information from case studies	m k	
Increase knowledge of physical habitat conditions and functionality across the catchment using the Urban River Survey	Queen Mary, University of London, Environment Agency, LB Brent	Other Universities, River and Wildlife Trusts, Local Authorities, Thames 21, Canal &River Trust	Gather and upload data to URS website (www.urbanriversurvey.org), URS training or refresher sessions, coordinate coverage with other URS recording groups	k ±	<b>ŶŶŶ</b> Ŷ
Gather existing invasive species data and standardise data collection methods	London Invasive Species Initiative, London Wildlife Trust, Greenspace Information for Greater London	Environment Agency, GB Non-Native Species Secretariat	Contact other groups already conducting this work	±	
Set-up invasive species recording tool	London Invasive Species Initiative, Greenspace Information for Greater London		Create and share tool	±	
Horizon scanning for invasive animal species, whose numbers may increase as water	London Invasive Species Initiative, London Wildlife Trust	Environment Agency, London Natural History Society, Greenspace Information for Greater	Create and maintain list	±	<b>*</b>

qualityimproves		London				
Proposals Can you halp dow	volon any of those?					
Proposals – Can you help develop any of these?						
Selective scrub clearance	Environment Agency,	LB of Barnet	Survey the Dollis Brook to map	le.		
and tree works to improve	London Wildlife Trust		sites where work can take place	k		
aquatic habitats along the						
Dollis Brook						
Construct a nesting bank for	Canal & River Trust,	London Borough of Barnet,	Fundraising	1.		
sand martins and	Welsh Harp	Natural England	C C	k		
kingfishers on an island in	Conservation Group,					
the Brent Reservoir	Environment Agency					
Improve Water level	Environment Agency,		Review the water level	k		
management on Brent	Canal & River Trust,		management plan and control	N.		
Reservoir to prevent	LB Brent, LB Barnet		mechanism for Brent Reservoir			
flooding out nesting						
waterfowl						
Replace Tern rafts at Brent	Welsh Harp		Fundraising	Le		
Reservoir	Conservation Group,		-	k		
	Canal & River Trust					
Establish a water vole	Welsh Harp		Assess and improve the	1,		
colony on the Brent	Conservation Group,		suitability of the Brent Reservoir	k		
Reservoir	Environment Agency,		as a site for Water Vole			
	Canal & River Trust,					
	Natural England					
Create local catchment task	Thames21, London	London boroughs, Friends	Create directory of existing	k	<b>ŤŤŤ</b>	
groups for stretches of river,	Invasive Species	of groups, general		K		

to carry out tidy up days and other positive on-the-ground works		community	groups and identify gaps	Ô	
Pollution Awareness campaign throughout the Brent Catchment	Brent Catchment Partnership	Community groups, businesses	Get funding and identify a coordinator or working group	m	<b>†ŤŤ</b>
Brent Catchment Partnership website, including Pollution Awareness pages and invasive species information	Brent Catchment Partnership		Get funding and host organisation for website	m ±	†ÎŤŘ

Your ideas - what else could be done?