

the Wey Valley Fisheries Action Plan



Working together
for the future of
our fisheries

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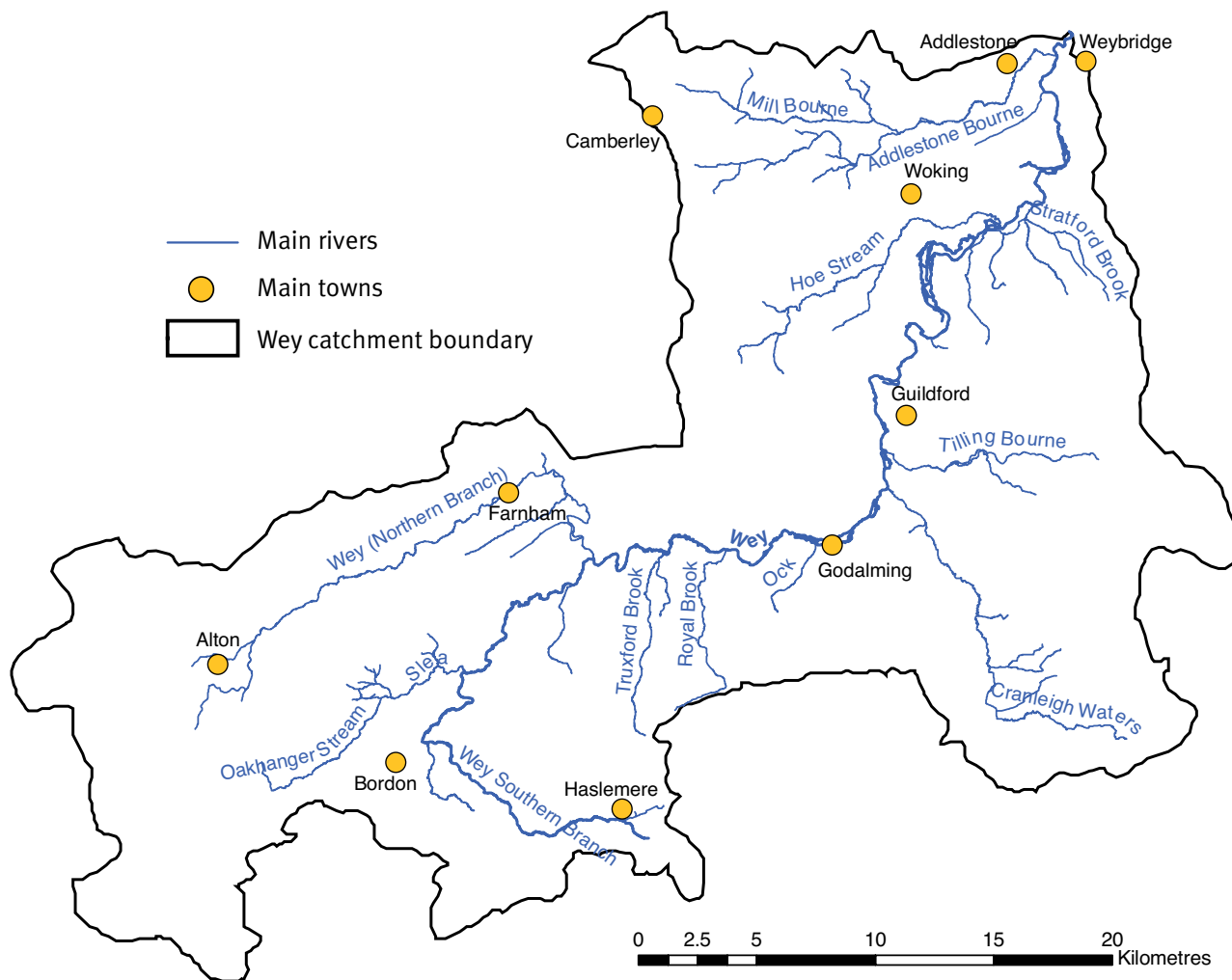
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Overview of the Wey catchment



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Introduction to the Wey Fisheries Action Plan

Thriving fish populations are a well-known sign of a healthy water environment. If we protect and improve fisheries there will be far-reaching benefits for the environment and people. The Environment Agency is responsible for the conservation, development and improvement of our freshwater fisheries and I am privileged to have been involved with the production of both their national and regional fisheries strategies. However, the practical implementation of these strategies takes place within individual water bodies and river catchments. They cannot be carried out without a detailed plan of action relevant to local conditions. All plans need to embrace the views of those who live locally and those who use the resource, whether for simply walking by the riverside, watching wildlife, or trying to catch the many fish species that populate our waters.



The Wey Fisheries Action Plan (FAP) has been compiled by consulting with a wide range of individuals and groups to reflect both their knowledge and concerns about the 300km of watercourses and more than 100 stillwaters in the Wey catchment. The presence of high-quality fisheries has far-reaching social and economic benefits for both the environment and people. For example, angling has direct economic benefits, but it also provides an opportunity for us to encourage all sectors of society to participate, and develop a better appreciation of the environment.

However, while the Wey Valley is a prosperous and pleasant place, this prosperity has created great pressures on its fisheries. Centuries of human influence has left a highly modified aquatic environment under increasing stress. An active programme of protection and improvement is required for this precious resource. The Wey FAP identifies key species and habitats for protection and target improvements. A table of issues has been agreed with actions that will lead to reduced pressures and a better quality environment for wildlife and people.

This is a large task and the Environment Agency, despite making much progress, has limited resources. Just as this Fisheries Action Plan is the result of a consultative partnership with local people, similar partnerships are required to action local schemes and take this Plan forward. Good examples are described in the Plan and I commend it to you. Together with the Environment Agency you can make the Wey Valley a better place for wildlife, people, and a wonderful place to go fishing.

Chris Poupard

Chairman, Thames Region Fisheries, Ecology and Recreation Advisory Committee.

Key habitats

A number of key habitats are intrinsic to supporting a range of highly valuable fisheries within the Wey Valley.

A wealth of biodiversity flourishes and maintains high-quality fish populations from the chalk stream habitat in the upper catchment and tributaries to the natural riverine environments of the lower Wey. It provides angling opportunities for a wide variety of fish species.



North Wey downstream of Farnham



A headwater trout stream at Folly Bog

The Wey North is of particular interest as a chalk stream in supporting native brown trout, water crowfoot and a range of invertebrates.

There are over 100 named water courses that make up the Wey Catchment.

Main tributaries include Sleas, Cranleigh Waters, Tillingbourne, Stanford Brook/Hoe Stream, South Bourne. Canal systems within FAP catchment: Wey and Godalming Navigations, and the partially restored Wey and Arun Canal. There are over 30 angling clubs with fisheries in the Wey catchment.

Chalk streams

The chalk stream habitat of the north Wey represents a greatly valued environment that contributes unique elements to the British landscape. Chalk streams are assigned a United Kingdom Biodiversity Action Plan (BAP) conservation status. They are important in supporting a characteristic plant community dominated by water crowfoot (*Ranunculus*) as well as fish species such as brown trout, brook lamprey and bullhead, each with BAP status. The United Kingdom's chalk rivers are world famous for fly-fishing, which is an integral part of the country's heritage.

Headwater streams

Headwater streams often support valuable native brown trout populations such as those found at the top end of the River Bourne which rises on Folly Bog. Fish in these habitats are often isolated and may be particularly sensitive to habitat, flow and water quality.

Lowland river

Reaches which feature a combination of natural river form and flow provide a wide range of habitats of great importance in supporting a variety of flora and fauna. This presents a beautiful landscape to enjoy, particularly for the angler whose appreciation of these qualities are intrinsic to the fishing experience. The River Wey provides an exceptional environment for those wanting to escape from the hectic urbanised areas of the South East.



High-quality lowland river landscape at Wisley showing eroding cliff, exposed gravel shoal and river glide habitats.



Lower and Middle Wey – typical lowland river with a wide floodplain. The rich flora of a flood meadow.

Floodplain

Much of the river remains well connected to a floodplain, which supports many important habitats amongst wetlands and backwaters and includes several important conservation sites.



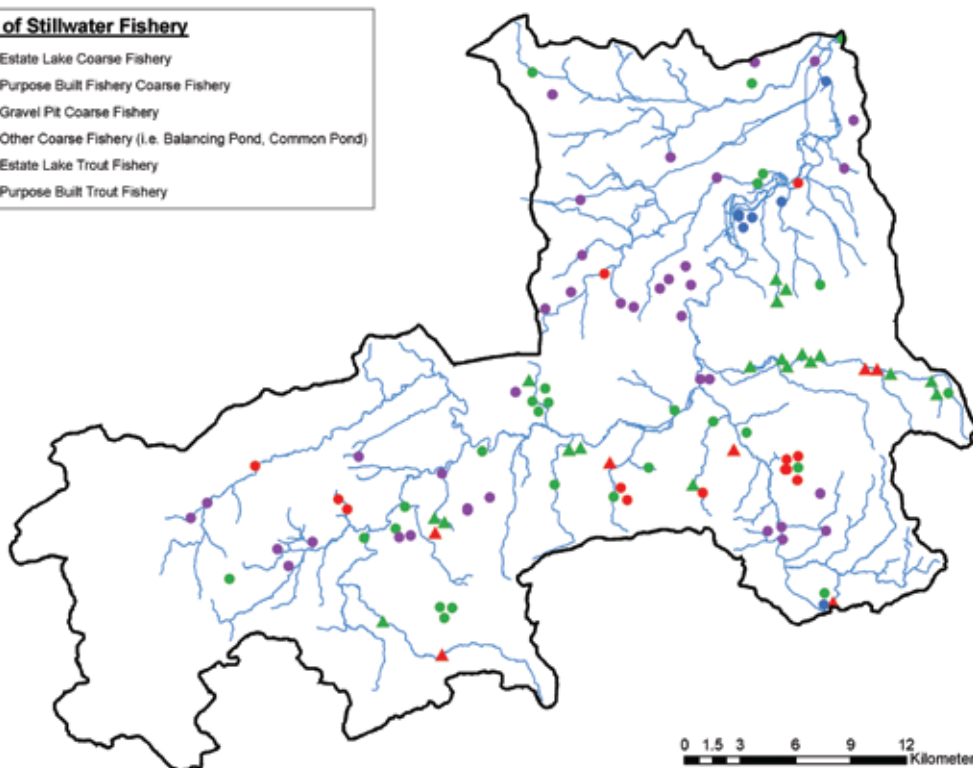
The catchment contains an excellent mix of outstanding landscape, habitat, species and industrial heritage that need to be protected, enhanced and extended.

As a result the catchment is extremely valuable. This is reflected in the numerous nature conservation, landscape and heritage designations.

River Wey floodplain at Stoke Meadows in Guildford

Floodplains provide refuge, spawning and productive feeding areas for fish when flows in the river are high.

- Type of Stillwater Fishery**
- Estate Lake Coarse Fishery
 - Purpose Built Fishery Coarse Fishery
 - Gravel Pit Coarse Fishery
 - Other Coarse Fishery (i.e. Balancing Pond, Common Pond)
 - ▲ Estate Lake Trout Fishery
 - ▲ Purpose Built Trout Fishery



Map showing the range of stillwater fisheries in the Wey Catchment

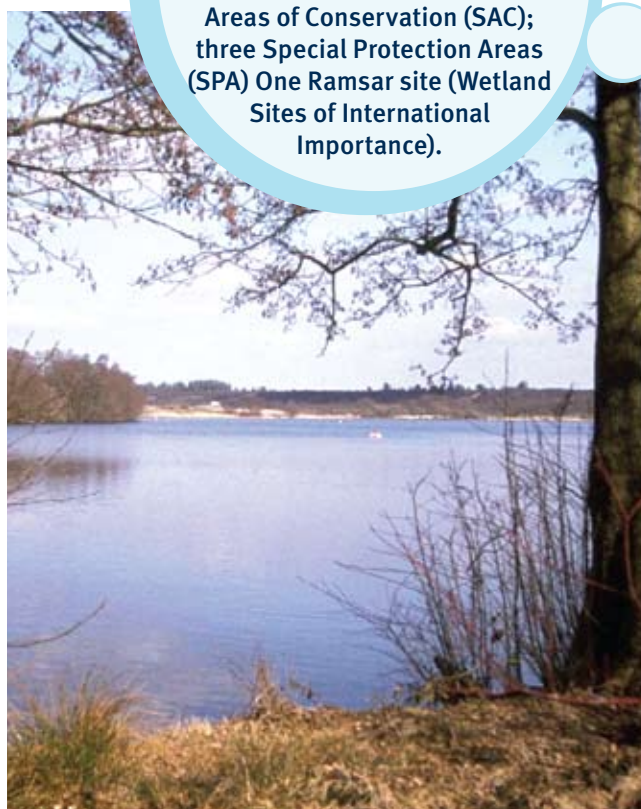
Stillwater and canal

There are over 100 stillwater fisheries in the Wey Fisheries Action Plan area. They range from traditional estate lakes to large deep gravel pits, small village ponds to large waterbodies. Frensham Great Pond, for example, is a nationally renowned fishery that co-exists alongside an area of high conservation status and extensive recreational importance. The Wey navigation and canal systems in the catchment also add a new dimension to the fishery supporting wildlife communities associated with its slower flowing and backwater environments.

There are 46 Sites of Special Scientific Interest (SSSI) within or partly within the Plan area; two National Nature Reserves - Chobham Common and Thursley Common; four Special Areas of Conservation (SAC); three Special Protection Areas (SPA) One Ramsar site (Wetland Sites of International Importance).



Junior angler being coached at Kingsley Pond



Frensham Great Pond

Key species

These habitats support key species identified for this plan. These represent the indicators of a healthy ecosystem in the valley and include:

Native brown trout – require good-quality water, breeding in the upper catchment and headwaters where suitable high-quality habitat exists. They provide valuable angling opportunities for the game fisherman. It is a species with United Kingdom and Local Biodiversity Action Plan (BAP) conservation status.



Native brown trout

Water crowfoot – a very selective aquatic plant species, characteristic of healthy chalk streams. They provide food and shelter for a variety of aquatic invertebrates and fish.



Water crowfoot

Fly life – the diverse range of aquatic insect life is an important element in the biodiversity of the catchment, greatly appreciated by the angler who sees the emergent flying forms as an indicator of the quality of the environment.



Mayfly

Barbel – a fish that thrives in the middle to lower catchment where flow and river habitat is of good quality.. It has been given the local conservation status of a Biodiversity Action Plan (BAP) species. It is greatly valued by the angler – the king of river fish.



Barbel

Bullhead – a fish that is sensitive to water quality and habitat. While not an angling species, it can be found throughout the river catchment and provides an important food source for trout and kingfishers. Bullhead is of conservation interest under the species annex of the European Community Habitats Directive.



Bullhead

Eel – an internationally threatened species with a remarkable life history. It spends many adult years in rivers like the Wey before migrating to Bermuda to spawn and its offspring will make the 3500 mile journey to return to the river. The European eel is a United Kingdom BAP species and is protected under European legislation. They are also a critical food source for otters.

The otter is beginning to re-establish itself in the Wey catchment. Owing to the relationship of these two species, the ability of eels to penetrate into the catchment over numerous weir structures may be an important factor in the successful re-colonisation of the otter.



Juvenile eels migrate into the Wey to find food and grow before returning to the Sargasso Sea.



The otter and kingfisher are two important species dependent on a healthy fish population, particularly the eel and the bullhead.



Large rudd and angler

Rudd – native to stillwaters of the Wey valley, are sensitive to deteriorating habitats and competition from other fish species such as the more common and widespread roach.

Crucian carp – another important stillwater species threatened by inappropriate fish stocking. True crucian carp are increasingly rare as a result of cross breeding with common carp and goldfish, the latter often illegally stocked in ponds and lakes.



Crucian carp – threatened by its close genetic relationship to goldfish.

Key pressures facing fisheries in the catchment

Sediment and land use

The geology of the south Wey is quite unusual in that it flows through greensand beds. This highly erodable sediment enters the river and can deposit downstream on the river bed restricting the establishment of healthy aquatic flora and fauna. It smothers the clean gravel spawning grounds required by fish such as trout.



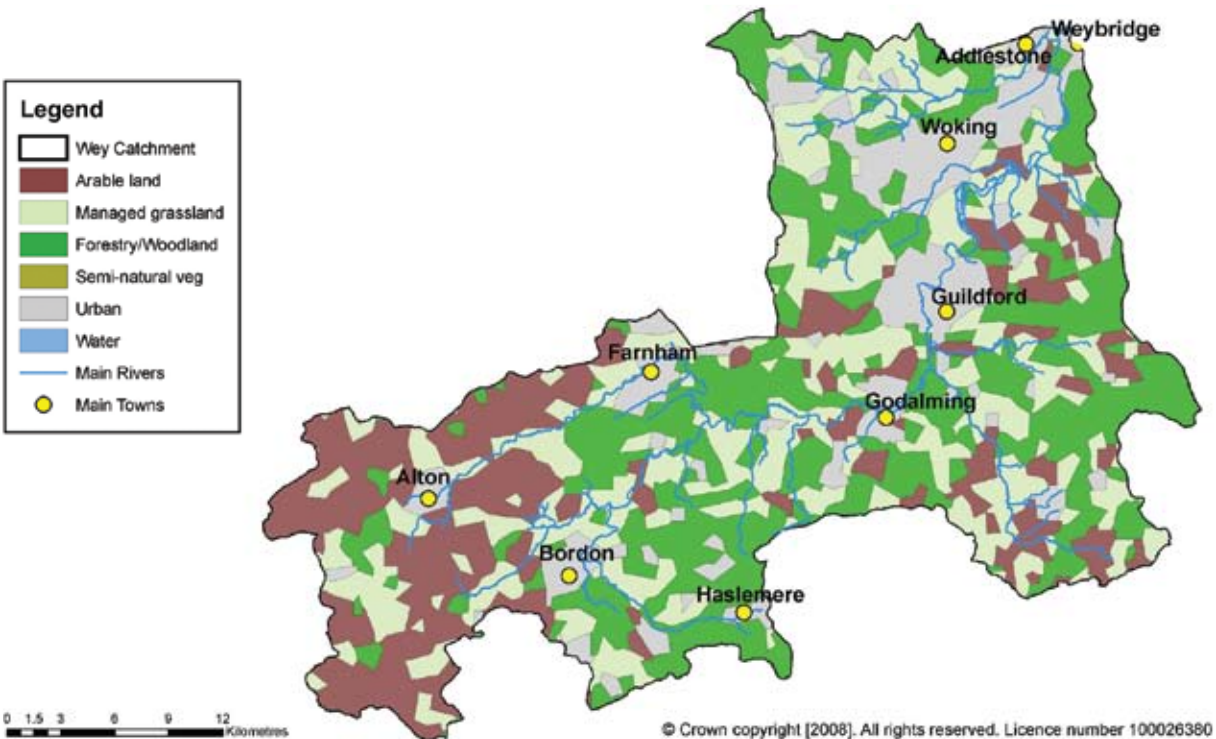
Sand sediment – typical of the south Wey



Eroded river bank – disease and poor management of bankside trees can exacerbate bank failure, erosion and increase the amount of fine sediment that enters the river.



Riverine ‘deserts’ form where large amounts of sand enter a river or where the river velocity is too low to move it along to expose gravels. They support little aquatic life.



Land use within the Wey Catchment map

Trees and bankside vegetation are important in stabilising river banks. Land-use practices that clear such vegetation lead to increased erosion and more fine sediment and sand entering the river. The hard surfaces of urban catchments rapidly discharge water into local rivers, which may also increase erosion. This effect is worsened where river channels have been modified by historic land drainage schemes.

Channel modification

Large areas of sterile 'desert-like' channels have been created by numerous impounding structures such as mills and weirs. These obstructions cause fine sediment to settle out uniformly over the width of the river. The historic over-widening of many sections of the river for flood defence purposes has contributed to the problem.



Dredging of sand at Tilford in the 1970s



Where past engineering practices have excessively modified the river, even partial natural recovery may take generations.

Of 315km of river surveyed in the catchment for a geomorphology study in 2002:

- 26 per cent is predominantly natural
- 41 per cent is modified but showing signs of recovery
- 21 per cent is degraded
- 12 per cent is severely degraded.

The total catchment area is 1007 km² (10 per cent of the River Thames' catchment above Teddington).

Land use:
37 per cent agriculture, horticulture and forestry;
37 per cent woodland, meadow, common and parkland;
22 per cent urban; 4 per cent other including golf courses and mineral extraction.

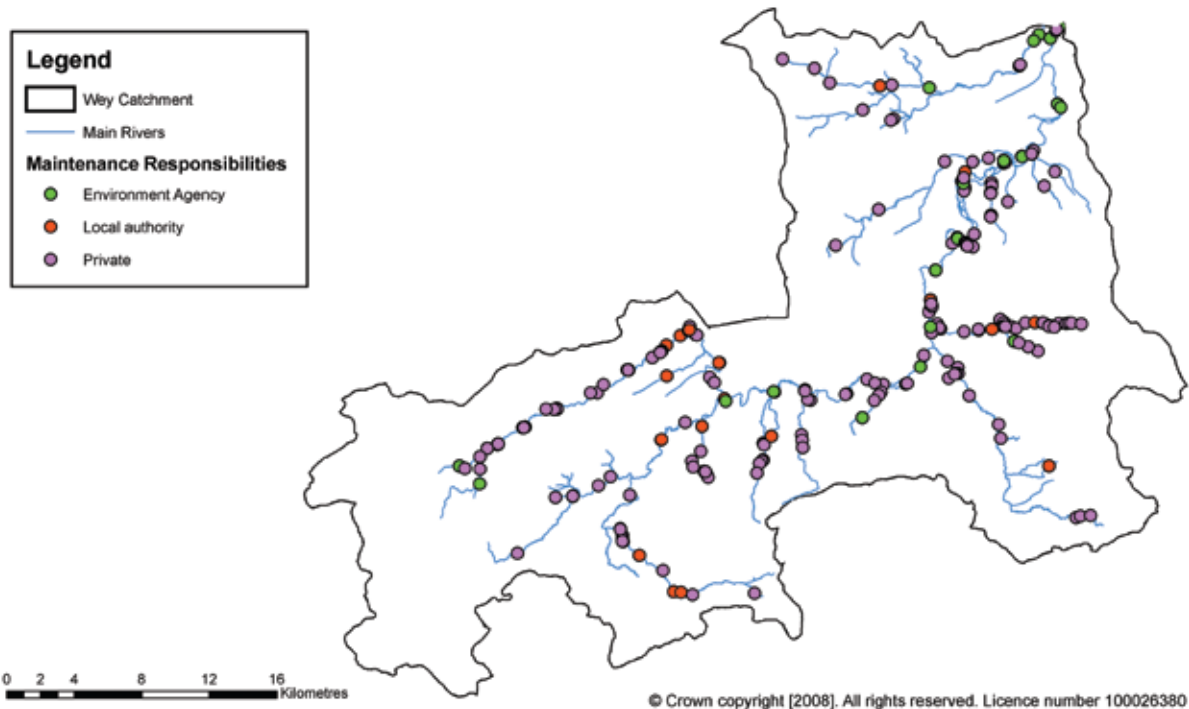


Bankside vegetation holds the soil together. It is a fundamental element of the river ecology. If a buffer strip is not retained, erosion will follow and the river downstream will suffer from the settlement of fine sediments.

- Main urban areas:
- headwaters - Alton, Haslemere, Bagshot;
 - middle reaches - Farnham, Godalming, Guildford;
 - lower reaches - Woking, Addlestone, Weybridge.

Channel modifications fall into three main categories:

- 1) Pre-20th century for mills, navigation and water meadows.
- 2) Early 20th century and 1930s channelisation, mainly for flood alleviation.
- 3) Late 20th century (mainly 1970s) for agricultural drainage, some flood alleviation and infrastructure such as motorways.



Flood control structures within the Wey Catchment

Obstructions to fish passage

The numerous mills and similar flood control structures in the Wey also act as barriers to migrating fish. While the importance of migration to the lifecycle of salmon and eel is well known, the majority of other species that live in the Wey also have essential requirements for migration. This extends to fish such as dace and barbel that attempt to return to upstream spawning and feeding grounds, for example, after they have been displaced following floods. There is a need to take a close look at some of these structures and find opportunities to include fish passes in suitable locations.

There are over 200 flow control structures (such as weirs, sluices and mills) in the catchment, the majority of which pose significant barriers to fish migration. Currently only three fish passes have been built.



Salmon leaping



Dry stream bed, north Wey, Alton



Walsham Weir, River Wey-Ripley

Enough water to go around?

The River Wey shares its flow with a number of important waterway channels such as the Wey and Godalming Navigations. The restoration of the Wey and Arun Canal is also underway. How can we optimise flow share to ensure that valuable aquatic flora and fauna flourishes while maintaining a viable waterway system for boats?

There are 153 licensed abstractions from surface and groundwater within the Wey catchment. These support a variety of uses including water supply, recreation (such as spray irrigation of golf courses) and industry. These abstractions are managed under the Wey Catchment Abstraction Management Strategy (CAMS), which also provides an assessment of water resource availability in the catchment.

Management of high flow, flooding and the importance of backwater and refuge areas

The control of the river's flow can have an impact on the fishery. The need to reduce flooding in urban areas by directing flows quickly downstream has to be balanced with the importance of maintaining floodplain habitats, reducing river flows and recharging groundwater reserves. Fast-moving water created by retaining flood flow in the main channel makes conditions difficult particularly for small and young fish that may have been washed downstream. Water spreading across a floodplain reduces the chances of this occurring in a natural river. It provides productive backwater habitats and refuge for the fish. The floodplain has another important role to play. It acts as a sink for fine sediment carried downstream by flood water, allowing it to be deposited on the land rather than in the river channel.

Water quality

Water quality is generally very good throughout most of the catchment but housing and industrial developments put pressure on the river for water supply and may increase the risks of water pollution either by accidental spillage or by increasing urban run-off.



Backwater refuge at Guildford

Sewage effluent from the main towns is discharged to the Wey and its tributaries via a dozen major treatment works. The Environment Agency routinely monitors water quality by taking water and biological samples at over 50 sites throughout the catchment to ensure appropriate standards are maintained.



Floodplain at Stoke Meadows



Automatic Water Quality Monitoring Station

After a number of severe pollution incidents on the river downstream of Bordon, the Environment Agency installed an Automatic Water Quality Monitoring Station to continuously monitor water quality. Data from this solar-powered unit is fed in real time to Environment Agency staff.

Navigation

The navigation provides a highly valuable resource for recreation, creating its own excellent angling opportunities. However, the management of the navigation can also impact detrimentally on the river environment, through impoundment, dredging and bank reinforcement for example. As such, it requires careful planning prior to maintenance and development programmes.

There is 32km of waterway navigable for boats from Weybridge to Godalming. The National Trust is responsible for the overall management of the navigation. However, responsibility for operating the many associated control structures is varied and includes The National Trust, Environment Agency and private owners.



Wey at Milmead



Invertebrate survey



Tench fishing at Johnson's Lake, Enton

Lakes and ponds

Stillwaters by their very nature tend to silt up and become increasingly enriched with nutrients such as phosphate and nitrate leading to algal dominated environments. Fishery management has an important part to play by maintaining the right balance of fish species for their customers and the environment.

De-silting operations are complex and expensive and it is very easy to let stillwater fisheries fall into disrepair. A well-managed stillwater fishery can be an extremely valuable resource, especially if the local community has access to it. It provides safe and healthy fishing opportunities for youngsters.

Angling participation

A recent survey revealed that 11 per cent of the population, some 4 million individuals, of England and Wales (21 per cent of 12–16 year olds) had fished in the last two years. Angling is probably our most popular participant sport, and is recognised by the government as a healthy form of outdoor recreation that is widely available to all sectors of society.



Family friendly fishing at Marsh Farm Fishery



A proud young angler

Angling can contribute to social inclusion, particularly to disadvantaged and hard-to-reach groups. It promotes environmental awareness and reduces crime and antisocial behaviour among young people.

The Environment Agency routinely collaborates with local authorities and landowners to develop new fisheries or improve existing waters. It is searching for new projects for 2008 – 2010.

The money made through fishing and fishing-related activities has exceeded £1 billion per annum nationally in recent years.

Invasive species

The release of non-indigenous plants and animals into the wild can cause great damage. This is an offence under the Wildlife and Countryside Act. Written permission must be obtained to release non-indigenous species in selected locations. The Environment Agency works closely with local authorities and other organisations to limit the spread of invasive species found in the Wey catchment.

Every year thousands of cubic metres of **floating pennywort** is removed from the Wey and other rivers in Thames Region. This plant reproduces incredibly fast and will prevent light from reaching the riverbed, killing underwater plants which, in turn, may cause oxygen problems for fish and other aquatic animals. It can completely cover sections of a river and clog operating structures, making water management difficult.



Floating pennywort removed from river



Signal crayfish

The **signal crayfish**, introduced to the United Kingdom in the 1970s, is now widespread and abundant in the Wey, having caused the collapse of native crayfish populations in the catchment. This is due to the spread of a fungal disease that is lethal to British crayfish as well as signal crayfish out-competing them for food and habitat. Non-native crayfish continue to impact on invertebrate populations that native fish species depend on. Signal crayfish are a major nuisance to anglers.

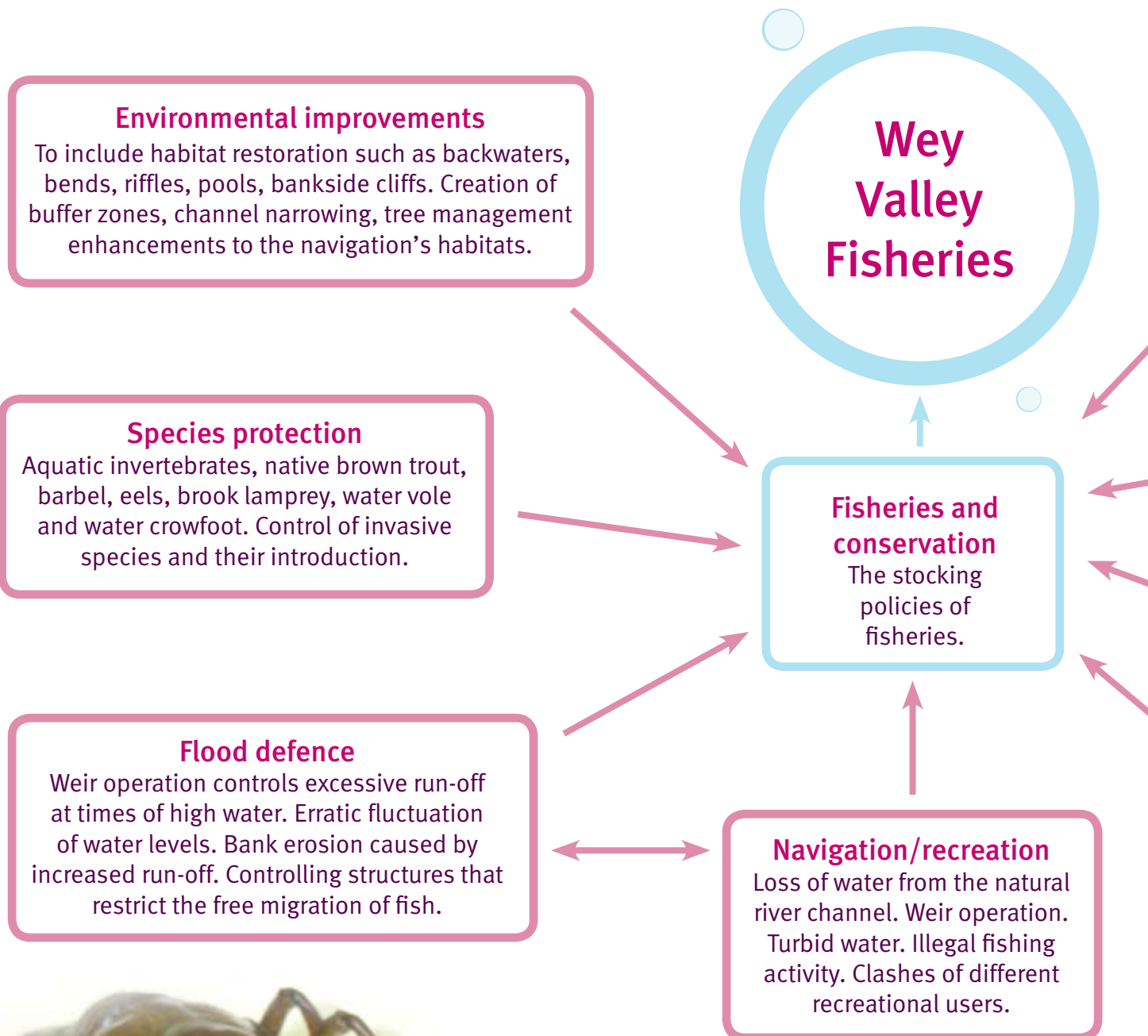


Topmouth gudgeon were eradicated from a pond by the Environment Agency to prevent their escape into the River Wey.



Mink not only feed on fish and waterfowl, they are currently the main contributor to the catastrophic decline of the native water vole in the Wey catchment.

Interactions of issues raised in the in the Wey catchment



FAP and their impact on fisheries

Impacts of native and non-native species

Examples include: cormorants, American signal crayfish, Chinese mitten crabs, floating pennywort, Himalayan balsom, Japanese knotweed, mink, zander, wels catfish.

Water quality

Pollution incidents, sewage works, debris screening, nutrient enrichment, dilution levels, endocrine disrupting substances, agricultural run-off, road run-off.

Water resources

Abstraction and customer usage. Excessive run-off at times of high water flow affecting recharge of aquifers.

Urbanisation, erosion and loss of habitat

Development of roads and housing that harden the catchment area and cause floodplain loss.

Changes in land use such as agricultural to golf courses.



Get involved!

A two-day workshop was held with a variety of consultees including angling clubs, councils, The National Trust and wildlife groups to help formulate a list of priority Fisheries Action Plan (FAP) issues.

This has been incorporated with work of the Wey Valley Fisheries Association and the Wey Valley FAP steering group to produce this Plan. The table of detailed issues is provided as an insert with this document together with some examples of projects.

If you wish to get involved with improving the quality of the fisheries in the Wey Valley fishery, please contact the Secretary of the Wey Valley Fisheries Consultative Association:

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Farnham
GU10 3HS

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List of consultees

A

Addlestone Angling Club
Albury Estate Trout Fishery
Albury Game Angling
Alton Initiatives Management Ltd
Aldershot Garrison
Apollo Angling Centre

B

Basingstoke Canal Authority
BBC Tackle
Bentley Fly Fishers
Byfleet Angling Association

C

Chertsey Angling Centre
Chertsey Bourne Conservation Group
Chris Webb
City of London Piscatorials
Clandon Park
Country Landowners Association
Countryside Restoration Trust
Cranleigh Angling Society

D

Dippenhall gate

E

East Hants Borough Council
Elmbridge Borough Council
English Nature

F

Farnham Angling Society
Farnham Angling Society Trout section
Farnham Angling Society (Stillwater Rep)
Farnham Society
Frensham Fly Fishers
Frensham Trout fishery

G

Gardner Tackle Ltd
Godalming Angling Society
Goldsworth Angling Centre
Goldsworth Park
Grayshott Tackle
Greyshott Angling Club
Guildford Angling Centre
Guildford Angling Society
Guildford Borough council

H

Hammer Trout Farm
Hampshire Tackle
Hampton Estate, Seale
Haslemere Angling Club
Hazel Copse Trout Farm
Headley Wood Farm
Heronwood Angling Club

K

Kingfisher Trout Fishery

› Continued on next page

List of consultees ...continued

L

Landowners

M

Maplewood Ltd

Masonic Angling Club

Mayford Angling

Mill Owners

Mineral Companies

N

National Trust

New Fishery at Hammer

Northern Wey Trust

O

Oakhanger Angling Society

Orvis

P

Peper Harow Flyfishers club

Raison Brothers

River Wey Trust (South Wey)

R

RMC

RSPB

Rudgwick Angling Club

Runnymede Angling Club

Runnymede Borough Council

S

Salmon & Trout Association

Shamley Green Angling Club

Southern Fisheries Services

Surrey County Council

Surrey Wildlife Trust

Sutton Place Estate

T

Taywood Angling club

Thames Water

The Creel

Tillingbourne Trout Farm

Twickenham Angling Club

Twynersh Fishery

W

Waggoners Wells, National Trust

Walton Angling Society

Walton On-Thames Angling Club

Waverley Borough Council

Wey and Arun Canal Trust

Wey Navigation Angling Association

Weybridge Guns and Tackle

Wey Valley Project officer (Farming and Wildlife Advisory Group)

Wild Trout Trust

Willingshurst Fishery

Wishanger Lakes

Woking and District Angling Society

Woking Borough Council

Woolmer Angling Club

Wooton Estate

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