

A Historic, pressure for development and transport, built environment

Valued features:

Cambridge's riverside commons and other accessible green spaces

Views of the river from these spaces

Access to walk and/or cycle alongside the river and into the countryside

Threats and problems:

Plans to provide new bridges and bus and/or cycle routes across commons (particularly the threat to Stourbridge Common.

Lighting along footpaths and cycle routes across green spaces. Here there was strong disagreement between one advocate for more or better lighting along cycle routes and several contributors who objected to any additional lighting.

Noise from road traffic which detracts from the peacefulness and enjoyment of riverside spaces

Pressures from too many people using the commons and the river. One contributor mentioned the heavy use of the towpath between Waterbeach and Cambridge by cyclists, largely commuters, detracting from the enjoyment of the more leisurely walkers. Another mentioned the heavy use of the riverside footpath at Meldreth, which has increased since the River Mel Restoration Group's [RMRG] improvements along the river, and reflects the paucity of river-side access in that area.

Lack of river-side access in the upper reaches of the Cam valleys, especially in the Rhee valley. This contributes to the heavy use of the few available footpath, and also means there is little incentive to form local groups, such as the RMRG, to care for the river.

The ageing sewerage structures and flood control structures. One contributor emphasized that aging sewers and storm water drains, sluices and sewerage plants contributed to pollution of the river, but funds for upgrading are inadequate.

Declining river flows and over-abstraction of the chalk aquifers, which will be exacerbated by the planned increase in development in the Cambridge area.

Opportunities for improvement

Map the remaining wet meadows in the upper reaches of the Cam basin, as a basis for seeking protection.

Identify where improved public access to the river, linking existing public rights of way from villages, would bring most public benefit, as a basis for seeking funding.

Explore potential for installing micro-generators at some of the many old water mills in the upper river basin.

Carry out an audit of the overlapping official protective designations relating to historic sites, and areas of nature conservation and landscape value.

B Ecology, fish and landscape

Do we know what areas of the river are in good health and which are not?

The Environment Agency monitor water quality but more detail is needed. Fish numbers have changed over time and declined, partly due to droughts but also due to floods washing fish downstream and them not being able to return due to weirs and other obstacles. Also overfishing and poaching.

We have some very good water meadows, for example at Little Shelford. Elsewhere a problem is poor land management which impacts on biodiversity and causes silting.

The National River Authority used to do tree works, such as pollarding but this has not been done for 20 years, resulting in darker rivers. In places this is good as it cools the water but other areas need light. Villagers used to pollard trees for wood products and firewood; these practices stopped decades ago. We cannot expect the Environment Agency and District Councils to do it all. We need more ownership and action from Parish Councils and landowners.

A perception is that flooding has not got worse over time but rainfall is more erratic, and that the Environment Agency do not clear blockages as much as they used to because they now have to follow a risk based approach due to declining budgets for maintenance.

Maintaining good water flows is of critical importance. We are lucky that many of our watercourses are, or contain, nature reserves and so are supported by borehole water. The Environment Agency has a support system for some of our streams via borehole support, but this system fails in severe drought conditions.

The Environment Agency is using herbicides to control weed species. This is less physically destructive than cutting but the balance of pros and cons is complex.

Our populations of wild trout have increased greatly over the last 15 years. We have two populations of native crayfish. But river dynamism has declined, leading to silting and lack of fish breeding areas. Cool, oxygenated rapidly flowing water over gravel is needed. Dredging in the past has ruined riverbanks from dumped material.

Some work is needed to identify the species richness of meadows. Seed should be collected and distributed. The River Mel Restoration Group have grown local plants in buckets and used them to populate newly restored areas of the river.

There are issues with pleasure boats. There are worries that they discharge to the river causing pollution. Some boats never move from month to month.

A good thing that has grown up over the last 10 years is the use by landowners of bigger buffer strips along watercourses. These reduce river pollution.

Fish poaching is a serious issue. It takes place where people can get access. Many are using nets and cleaning out rivers

Opportunities and Improvements

Byron's Pool is very ugly and needs improvement.

River management could be improved, with the sluices opened periodically in a coordinated way along the river - at Newnham Mill, for example, which has become silted up. This would flush out sediment and redistribute it. Alternatively the sediment could be dug out but disposal can be difficult and costly.

There is a need to connect green reserves for wildlife movements, with a management regime that creates areas where people should be kept out. This can be done naturally using water filled ditches and man made bogs. Such wetland buffer strips can also help to soak up farm runoffs.

Aerial photography could identify invasive species such as Himalayan Balsam. It would be good to capture local knowledge onto a website, but sensitive information should be kept hidden from open view. Some Parish Councils have very good information and approaches to their watercourses, others are not so good. We need a programme to share best practice and spread knowledge of the issues and what can be done about them locally.

The River Cam is at the heart of Cambridge, and it is threatened by growth, but growth can be an opportunity as well as a threat; examples are Trumpington Meadows and the Country Park.

Our water vole population should be protected.

Litter picking on land and on the river needs improving. Garbage on river is very noticeable when rowing.

Backwaters in the City need tackling. Sediment levels are very high reducing biodiversity, but the mud needs to go somewhere and sometimes it can be contaminated, which greatly adds to costs.

There is a need to educate the public about where surface water drainage goes – most do not know it goes straight into the rivers. Ignorance leads to pollution. We need to spread the message in many ways and continually.

C Recreation, tourism and access

What is good and needs protecting?

The Cam is multiple-use, but there are too many boats and it is sometimes over-used. There are too many events. Communication and control of events is essential.

Tourism brings money into the local economy, both directly and indirectly. No-one knows quite how much. Need a benefits evaluation. Punt revenue is significant to the navigation authority, as well as pontoon licences. All boat licences are relevant.

Access is good for an urban river. It is a huge recreational resource; numbers of people using it are likely to increase. It is a sporting venue of national relevance. It is a green lung for Cambridge. It is a wildlife corridor, but pressure is imposed by recreational use.

It has its own navigation authority – with self-determination and a better standard of service than could be offered by the EA.

The river is mostly remote from roads. People can enjoy peace and tranquillity.

History has created a legacy of infrastructure to serve visitors such as the Orchard Tea Rooms at Grantchester. Local pubs also situated next to the river (e.g. Anchor, Fort St George, The Plough at Fen Ditton, Bridge Hotel at Waterbeach, Five Miles from Anywhere No Hurry Inn at Upware). The river is a magnet for communities. The tributary rivers are like 'tentacles' spreading from the centre; often the focus for community activity such as walks, dog walking.

Public rights of way exist alongside the watercourse. A Green Infrastructure Strategy is already in place.

People love the river and are passionate about it. This is a very positive force. There is potential for a Rivers Trust or Friends Group with a charitable status to be established, offering a mechanism

for seeking and obtaining funds for improvements.

There are zones of landscape stratification, a progression from the City passing wooded lands out into the Fens. The landscape of the lower Cam is open. All within relatively easy reach of the City.

What are the threats?

Moorings pressure including the lower river below Baits Bite Lock, where there is an apparent absence of planning control. Ribbon development of residential moorings is already happening, visually obtrusive in an otherwise rural setting. There is lack of coordination within Cambridge City Council over moorings and river use. The City Council has a mooring Policy but no mooring Strategy that looks at (i) competing uses/needs in different stretches, (ii) extent to which public amenity of river bank and water is sacrificed to permanent mooring.

Congestion along the river corridor: users may end up 'killing the golden goose'.

Dissatisfaction of visitor experience, especially powered boat owners, will mean that people either don't stay for more than a few hours or they won't return again. The result is loss of tourism revenue, economic impact on the City, reputational impact.

There is an imbalance between leisure and residential moorings. In other cities, moorings near the heart of the city are reserved solely for visitors and residential moorings are found in off-river cuts/marinas.

Population pressure is obvious. If 1% of the growing population of 10,000 takes up rowing, that's another 100 people rowing on the river, potentially another 100 craft, and that excludes the student population of the Universities.

The effective privatisation of police open spaces for moorings; loss of public amenity, can't see the river for the boats, can't get to the water's edge.

Siltation caused by natural processes and boat-wash. Loss of riparian habitats, also river narrowing and vegetation encroachment across a shallowing river bed.

Lack of landowner cogniscence of the condition of their landholdings, eg serious erosion at Ditton Meadows not being flagged up by land agents or acted upon.

Footfall at some sites causing disturbance to wildlife, particularly dog waters. Need to find the right balance for access.

River flows – unpredictable variability (high flows and low flows) in a changing climate. Water abstraction versus increased runoff arising from development in the catchment. That runoff could create more frequent periods of hazardous flows for river users.

Lack of tree management along certain reaches. Mature trees which are prone to toppling in, risk of public injury or obstruction of the navigation. Lack of flood defence enforcement by the EA in the upper reaches.

Barbeques, litter and vandalism, particularly at 'honeypot' sites such as Grantchester Meadows. These sites are over-used; the banks are eroding.

Negative media coverage; people who care about development and its effect on the river are branded as 'nimbys'.

Invasive species are an unknown threat. Himalayan balsam and floating pennywort are already present and likely to spread.

Flood management is controlled remotely, very difficult to model local impacts. Does the EA know how to respond?

Local authorities are not talking to each other. There's a lack of joined-up thinking. For example, City Local Plan coverage of the river is far better than SCDC's which is sadly lacking.

What are the opportunities for improvements?

A River Cam Master Plan to guide delivery of opportunities.

Restoring energy into reaches through habitat improvement works.

Make use of the Local Nature Partnership and its remit to bring economic and health benefits to communities. LNPs can work with Friends Groups and Parish Councils to bring about positive river-focused projects. Make use of volunteer 'people power'.

Develop off-line moorings. Have a moorings strategy overall, rather than a mooring policy. Learn from other authorities' mooring policies and strategies, e.g. City of London, Canal & River Trust.

The City Council needs to take a more proactive role in managing its landholdings, e.g. Riverside and Garret Hostel Lane. Streets & Open Spaces only employs 2 officers to manage moorings, and they only have 5% of their time allocated to moorings' management.

Join up the City and SCDC Local Plans. Join up thinking. Better coordination within City Council over moorings, river use, public open spaces, planning and housing.

Stop further building development within 50 (+?) metres of the river banks. More focus on public amenity and 'aesthetic' of the river corridor. Protection of countryside access from homes.

Form a River Trust, take advantage of funding made available under the Catchment Based Approach. LEPs, ACRE, have access to EU funding. Cambridge Water and Anglian Water should be brought into partnership with community projects.

Build better links with businesses and Colleges.

The Water Framework Directive can be a driver for funding for river restoration works. Continue collaboration with the EA. Also, apply for Heritage Lottery Funding for landscape-based initiatives.

S106 is being replaced by the Community Infrastructure Levy; tap into these funds. Use Natural England 'Higher Level Stewardship' projects. Conditions of grant can be tailored to set down access agreements and routes, control of invasive species etc.

Organise more publicity about the good works being done

Provide trail guides for walkers and canoe trails. Interpretation boards in the catchment. Install more public art near the riverscape. Republish the EA Anglian Waterways map for boaters.

Make more use of web-based promotion of the river. Bring young people into the loop. River studies in schools. Outdoor learning sessions; the value of the local habitat can lead to reductions in volumes of litter. Nurture family participation in water-based activities. Junior rowing and sailing. Parents' interest can be passed down the generations.

Appoint a public celebrity to front the group.

Gain developers' support for young people's sailing facilities at Waterbeach.

Look for opportunities to maintain and expand the freedom to roam, unrestricted access. Shelters

for teenagers (with WIFI) at river vantage points.

Increase waterspace through development (CamToo, Northstowe). The guided busway extension could, via CamToo project, open up another mile of river for recreation.

Make a World Rivers' Day River Festival a standing fixture on the list of City events. Form a steering group, make this a reality in late September 2014.

'Restoration' of rivers, especially south of Cambridge, should not be developed solely to enhance fish populations. Where public money is involved, the interests of canoe and kayak users should be encompassed.

D Pollution, river flows (abstraction/flood) and river restoration

The following uses of the river were put forward:

To transport water from A to B (with flooding)	Abstraction
Navigation	Food (fishing)
Drainage	Watering stock
Leisure, sport and recreation	Irrigation
Wildlife habitat	An outlet for treated sewage
A sustainable system	Appearance

What is good and needs protecting?

The river clearly is of great importance to those living near it or using it. We need to get the balance right between uses, and this might vary for different parts of the river: each tributary has its specific problems.

A few positives were mentioned: it is apparent that since the Barrington quarry stopped work, the natural springs have once more begun to run and the river there does not dry out as it used to. The restoration of the River Shep was pointed to as an excellent example. The Canoe Club reports that water quality in the river has definitely improved through Cambridge. Ashwell Springs was mentioned as being important to the river, as its source.

The general aspect of the river valleys, the attractive features, the wildlife and the possibilities for sport and recreation were all commented on.

What are the threats?

Flooding: this is of particular concern on the Bin Brook, but also on the Mel. Development, including highways, has led to increased flooding. Cambridge controls water flowing through city, causing upstream flooding.

There is over-licensing for abstraction, and the amount abstracted is unlikely to drop, although there are controls on increased abstraction with no new licences being granted. Should only have a sustainable population, in terms of water resources

Sluice gates can be opened to increase flows, but it is unclear that there is any regular policy for this. The control of water through the city impinges on water levels upstream, both in regard to flooding and lack of flow.

Development and increased population are serious threats, to the extent that the river could become less attractive to users. They also overload the water infrastructure (drinking water, drainage, sewage, etc. Farm drainage ditches are no longer being maintained and this might lead

to additional flooding

Sewage and pollution are often related to flooding from storm events, where raw sewage is washed out from pumping stations. There are problems of septic tanks discharging into the river, particularly with properties on Fen Road where bleach is added to the septic tanks, and concern about the discharge from residential boats.

It was questioned whether the river through Cambridge and in the countryside was attractive enough to the general public. This includes the Cambridge commons, where there is concern that they will become urbanised with too many lights, tarmac etc.

What are the opportunities for improvement?

There are some very good local examples of improvements (river restoration, wildlife habitat and species), but improvements with regard to flooding, sewage, water flow etc. need to be enabled at a higher level. However, a local river group can do a lot to draw attention to their specific problems.

A common framework and terms of reference could be drawn up for river groups (particularly based on different tributaries, but also different stretches of the main rivers), but which would enable them to prioritise their own “uses of the river” and their individual problems. If the tributaries/smaller stretches are the focus of attention, the river overall will benefit.

Take water from industrial buildings and use balancing lakes.

Keep standing water for newts, frogs etc

Area of Interest

Whole catchment	Upper Cam	River Rhee	River Granta	Bourn & Bin Brook	River Cam	Lower Cam
Bill Harris Cameron Adams Chris Wagner Elizabeth Ranelagh Les Brierley Lou Mayer Maureen Brierley Michael Bond Phil Clark Richard Bowen Richard Wells Ruth Hawksley Sandra Webb Simon Bunn Steve Hawkins Suzie Harrison	Barry Holme Jim Chisholm Lewis Duke Lynette Gilbert Tim Leech Tony Smith	Catherine Cairns John Hobbs Les Brierley Maureen Brierley Michael Morrish Sandra Webb Steve Hawkins Tim Leech Vince Blocke	Enid Bald Ian Steen John Banfield Lewis Duke Tim Leech Tony Smith	Andrew Hollick Chris Wagner Ian Steen Jo Clegg Nigel Ball Sue Glasse	Amy Tillson Anne Cleasby Brian Cox Damien Tunnacliffe David Emond Howard Slatter John Adams Matthew Edwards May Block Richard Moseley Sue Stobbs Vince Farrar	Amy Tillson Clive Brown David Savage Pete Towers

Those that did not give an area of interest

Andrew Down
Jean Perraton
Oliver Fisher
Rob Mungovan

Carolyn Gohler
John Preston
Patsy Dell
Robert Lowson

Catherine Bailey
Nick Heath
Peter Landshoff
Robert Tyers

Donald Hearn
Nicky Morrison
Philippa Noon
Tim Ward

I am a really useful person because....		
Name	Organisation	Use!
Richard Bowen	EA	I know a fair bit about rivers. I am passionate about collaborative working and I can try to gain access to funding!
?	?	I am involved with new ??? across the area and I work closely with GCCPEP and the Greater Cambs LNP.
John (?) Adams	Cam Conservators	I have extensive experience in the usage and ??? of fisheries, conservation and navigation within the Great Ouse river catchment.
Lou Mayer	EA	I can provide data and interpretation on WFD. I have a broad knowledge of rivers and am enthused to use this to improve them.
Donald Hearn		I know about colleges and university (as an ex Bursar). Also treasurer of CambridgePPF.
	River Mel Restoration Group	Volunteers who meet three weekly to work on R. Mel to restore habitat of chalk stream. Skills – restoration work, planting etc.
Ruth Hawksley	Wildlife Trust	Knowledge of the catchment, Bown (?) and Rhee in particular and contacts with lots of landowners. Knowledge of ecology and keen to do more work practical river restoration projects
Anne Clearly		I can liaise with groups interested in development around Cherry Hinton Brook/Romney (?) lakes. We regularly have litter removal work parties
Clive Brown		Cam Conservator, Riparian owner, boater with a narrow boat on the Lower Cam at Chesterton. Chairman Old Chesterton's Residents Association
May Block	Representing canoeing interests locally	Access to individuals interested in river wash from kayaks/canoes.
Ian Steen		Passionate about Grantchester Meadows and Bown Brook
Amy Tilson	Cam boater	Knowledge of the rivers and canals of the UK including navigation challenges of deep full length boats.. Contacts with boats in this area and beyond and issues facing them. I listen!
Jo Clegg	Coton Parish Council	
Catherine Cairns	Involved in the LNP and Trustee of CambridgePPF	Long career in managing natural environment and greenspaces. Project management and several other skills.
S Bunn		I work for Cambridge City Council in all aspects relating to water.
Oliver Fisher	Teversham Councillor	Background in accountancy, CIMA qualified. Can communicate with my parish council
?	?	I try to look at the whole picture not a single corner
Brian Cox	TRA	Beekeeper, pollen analysis, member of dragonfly Assn. Mechanical engineer interested in hydraulics
Damian Tunnicliffe	I am a Cambridge City Councillor	
Phil Clark	Co-ordinator of the	

	Great Cambridgeshire LNP	
Susan Stobbs	Friends of Midsummer Common	Historic issues of common land Community orchard
David Emond	Cambridge Association Architects	Whole environment especially landscape/built environment
Bill Harris	Prof at university	Canoeist, Rower and Fisherman Representing Residents Association of Old Newnham
		I work for the Farming and Wildlife Advisory Group. I have been involved in projects on the Cam and Bourn and work with landowners across the catchment. I am an ex-chairman of Cam Valley Forum. I live near the river.
Suzie Harrison	Chishill PC	I was formerly a geologist currently learning officer at AAM project IWM Duxford.