



TYNE RIVERS TRUST

Tyne Catchment Survey



This document summarises the results of a survey conducted by Tyne Rivers Trust in May/June 2012. The survey was designed to capture local knowledge about the issues within the River Tyne catchment, to help prioritise issues for action in a catchment plan for the Tyne.

Tyne Catchment Survey

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Background

In early 2012 Tyne Rivers Trust was successful in its bid to host one of 25 'pilot catchments' in a project funded by Defra. All 25 hosts were given the task of producing a catchment plan to improve the water environment by December 2012. A key part of the pilots was stated to be the engagement and involvement of a wide range of organisations, individuals and members of the public in developing catchment plans.

The Tyne Rivers Trust Project Board decided to carry out a survey to capture information about the issues affecting rivers across the whole of the catchment. The purpose was to add to Tyne Rivers Trust's own knowledge about the issues, and to capture an understanding of what was considered important to other organisations and the general public. A secondary purpose was to raise awareness about the Tyne Catchment project and about Tyne Rivers Trust's work in general.

It was anticipated the survey results would help prioritise the actions targeted in the Tyne Catchment Plan, as there was insufficient time and funding to develop a plan to tackle all of the issues across the whole catchment.

The survey

The survey was carried out over a 5 week period in June/July 2012 and took 2 forms:

- an online e-survey
- a paper survey.

Both surveys asked open questions about issues affecting the rivers in the Tyne catchment, where these issues occur and what respondents thought the solutions might be. A further question about flooding was also included, to help inform the work of the Community Flood Partnership.

Basic diversity information was collected to assess whether some groups were inadvertently excluded from the survey. The e-survey included a question about which sector(s) the respondent belonged to; this question was left out of the paper survey due to space constraints, but the answer was estimated where possible (see below for more information).

Both surveys were anonymous, though contact details were collected if respondents answered stated that they were interested in volunteering on Tyne Rivers Trust's river projects, or if they would like to receive its newsletter.

The e-survey

The e-survey is set out in Appendix 1. It was created through the Survey Monkey online survey tool (www.surveymonkey.net) and was made available via a web link between 19 May and 25 June 2012.

Respondents could list up to 5 issues/areas/solutions, and could answer the survey more than once if they wished to list more than 5 issues.

A link to the e-survey was emailed to 895 people on 28 and 29 May 2012. The email addresses were taken from Tyne Rivers Trust's database and other key contacts advised by the Trust's staff. Recipients were asked to complete the survey and also to send the email on to their own networks and contacts to extend its reach.

The paper survey

The paper survey is set out in Appendix 2.

Approximately 750 copies of the paper survey were made available throughout the catchment at a variety of venues. Details of the distribution of the paper surveys can be found in Appendix 3. Face to face surveying at markets throughout the catchment was planned (eg. Quayside Sunday market in Newcastle, Tynemouth weekend market and Hexham Farmers Market) but the poor weather during the survey period made it impractical to attempt surveying on the days the markets were running. Other opportunities to distribute the paper survey were taken as they became available, for example at Riverwatch Group meetings and when Tyne Rivers Trust staff were invited to the Gateshead mayoral event.

Collation of responses

The e-survey responses were downloaded from the Survey Monkey website into an Excel spreadsheet on 26 June 2012. In total the e-survey was completed 170 times. Seven responses were removed from the results because they were clearly 'tests' of the survey system and did not make sense.

Although the e-survey allowed respondents to list multiple issues separately, in some cases several issues had been listed together. Where it was clear that the issues were to be considered separately (for example, where they had been numbered and separate locations/solutions listed for each) each was counted as an individual issue.

The paper survey responses were typed verbatim into a spreadsheet to permit direct comparison across both surveys. The paper survey contained only one box to name each of issues, locations and solutions. Where multiple issues were clearly listed they were recorded in separate spreadsheet columns, in the same way as the e-survey.

The survey results

There were 163 responses to the e-survey and 55 to the paper survey. The full responses to the questions about issues, locations and solutions are set out in Appendix 4. The detailed responses given by those respondents who were affected by flooding are set out in Appendix 5.

Question 1 – Issues

In total 342 individual issues were raised. 143 respondents raised one issue, 42 respondents raised two issues, 15 respondents raised three issues, 10 respondents raised four issues and 6 respondents raised five issues.

After the e-survey and paper survey responses were combined they were analysed and a list of common 'issue categories' made. Each issue was then allocated to one or more issue categories. If a response did not obviously fall into one of the issue categories, it was given the category of 'Other'. Figure 1 shows the number of responses for each issue category.

The broad category(ies) each issue was assigned to is included in Appendix 4.

Question 2 – Locations

The locations mentioned in the survey responses ranged from very specific place names / stretches of river to large sections of the catchment. Some responses were non-specific and could not be attributed to a location or stretch of river, while others were stated to be 'catchment wide' or 'at various locations throughout the catchment'.

Where possible the locations mentioned were assigned to broad divisions of the River Tyne catchment. Where a tributary was mentioned it was assigned to the section of main river it flows into. This gives a very broad overview of the distribution throughout the catchment of the issues raised – see Figure 2.

The complete survey responses, including the broad locations the responses were assigned to, are included in Appendix 4.

Figure 1 Number of responses for each broad issue category
An issue may fall in more than one category

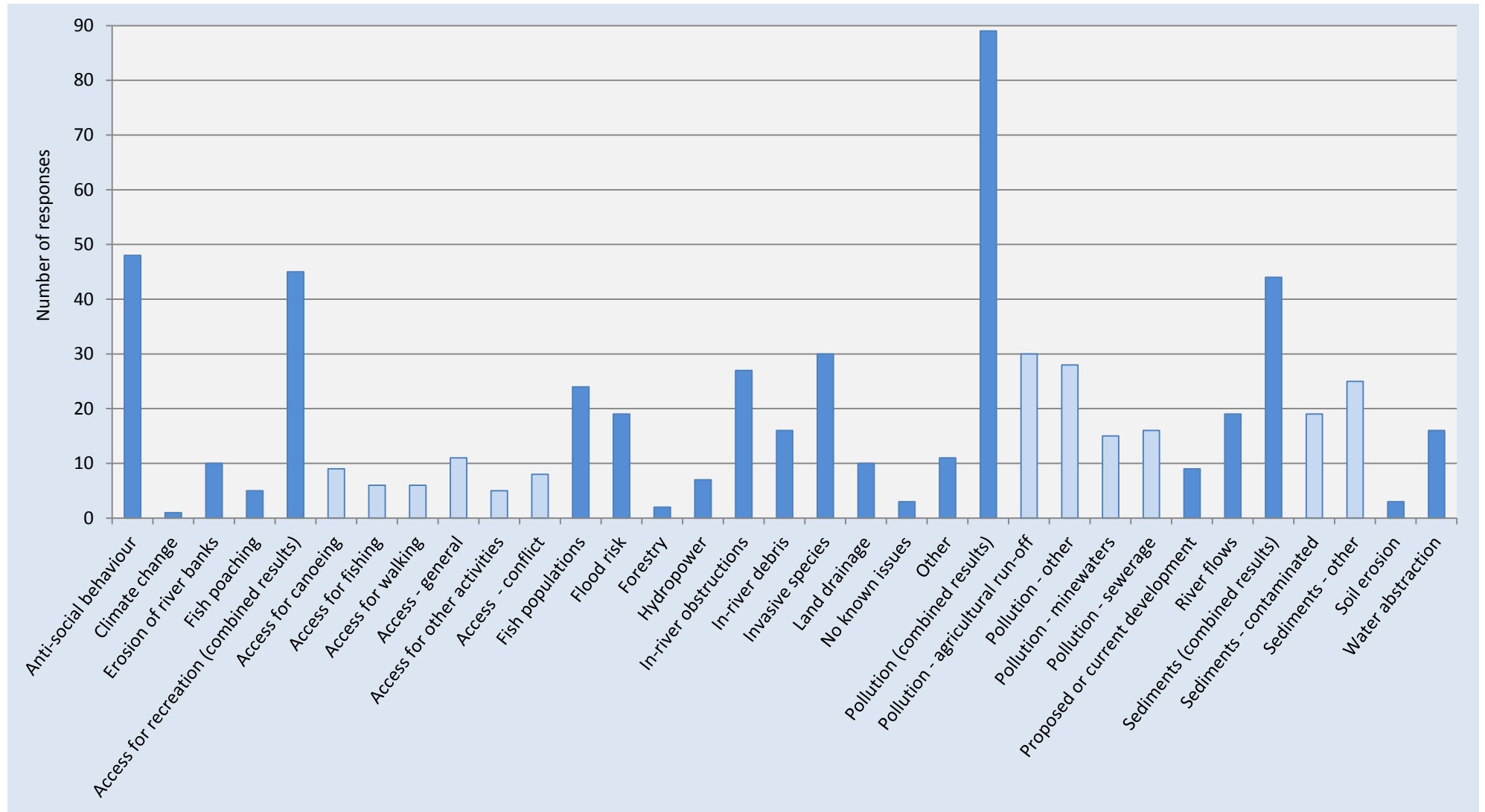
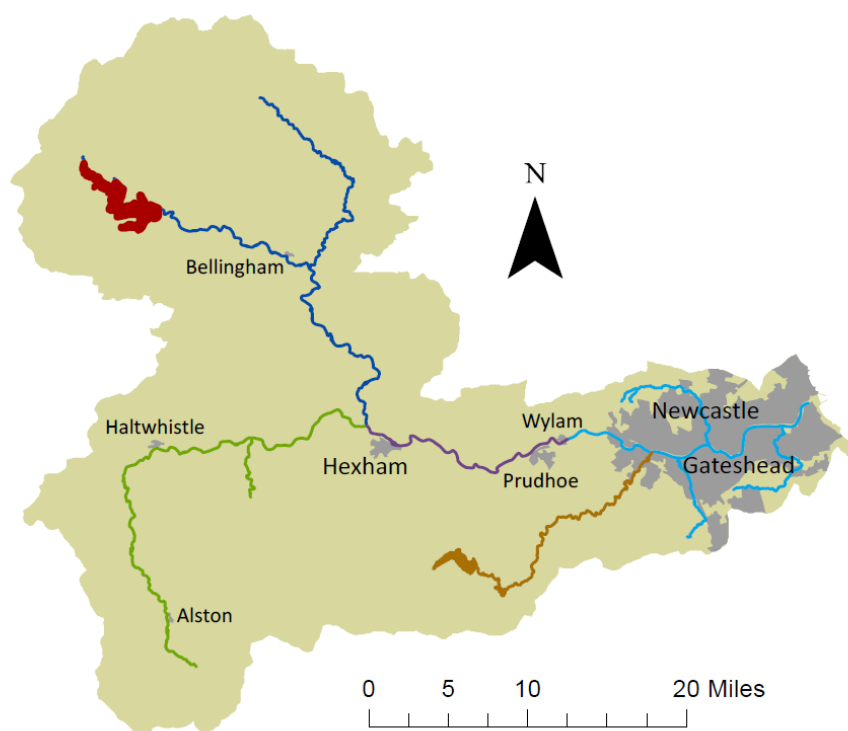
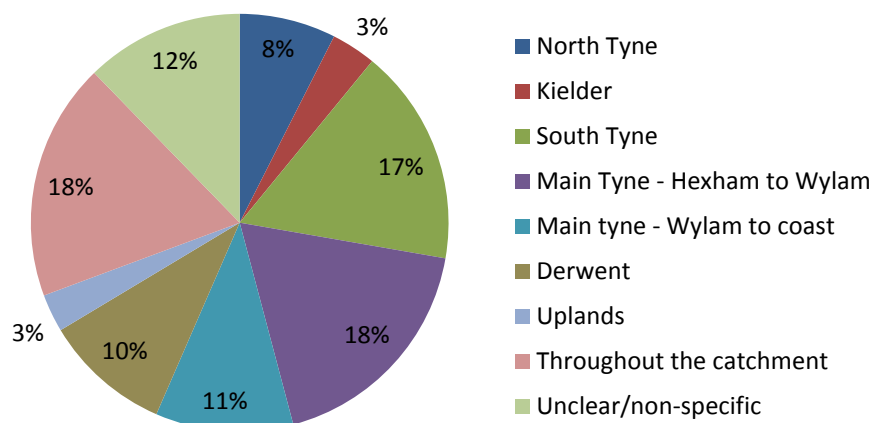


Figure 2 Broad distribution of the locations mentioned in the survey
Some responses were assigned to more than one location



Location of the 'hot' issues

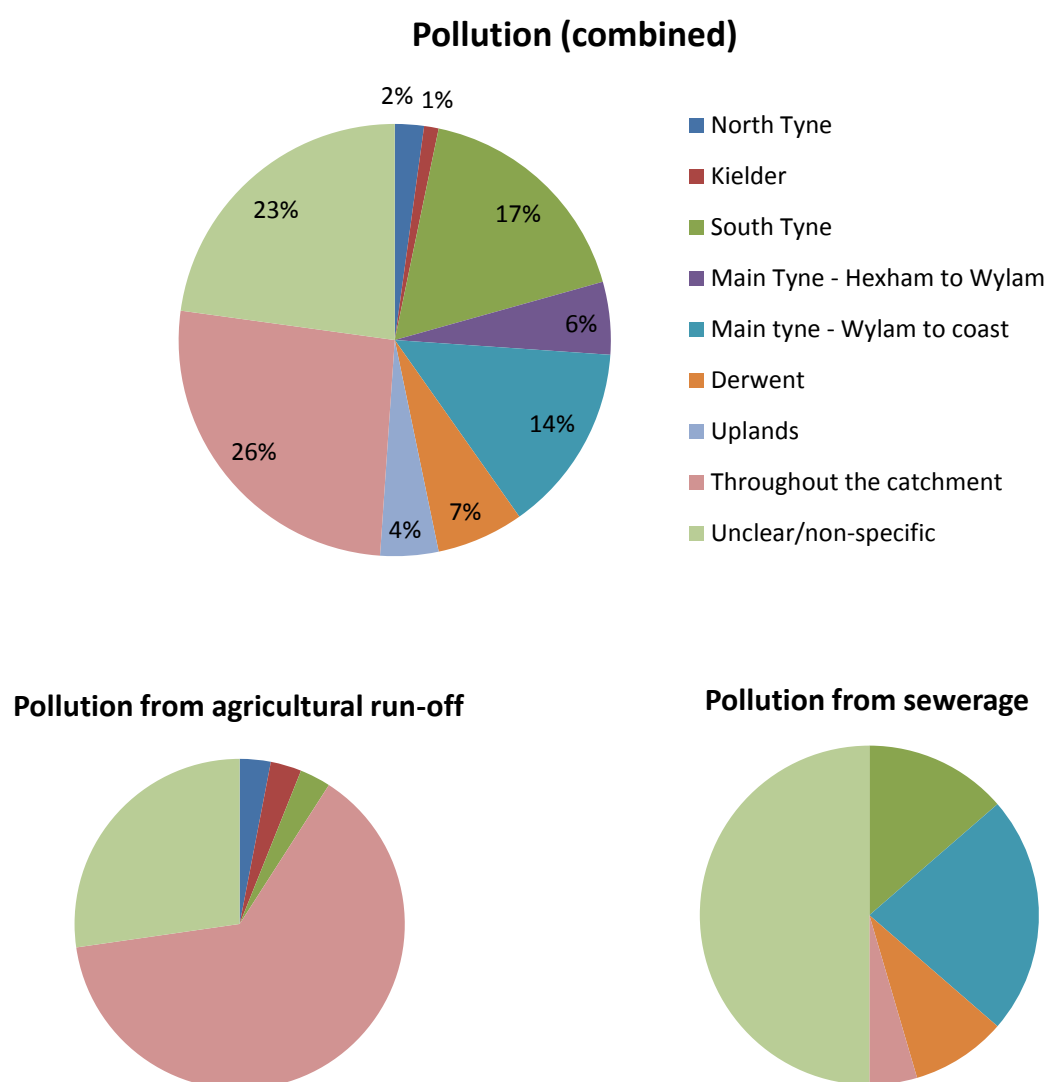
The top categories of issues raised in the survey (those mentioned more than 20 times) were:

- pollution (a combination of the 4 sub-categories of 'sewerage', 'minewater', 'agricultural run-off' and 'other')
- anti-social behaviour

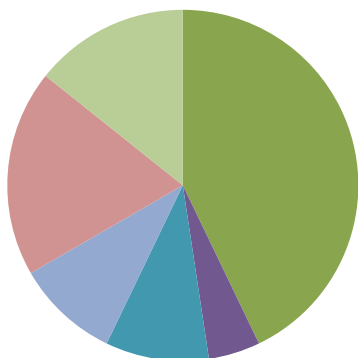
- access for recreation (a combination of the 6 sub-categories of ‘access for canoeing’, ‘access for fishing’, ‘access for walking’, ‘access – general’, ‘access for other activities’ and ‘access – conflict’)
- sediments (a combination of the 2 sub-categories of ‘contaminated’ and ‘other’)
- invasive species
- in-river obstructions
- fish populations.

Figure 3 to Figure 16 below show how these issues were reported to be distributed throughout the catchment. The maps are designed to give a general idea of where the issues are located; in many cases it was impossible to pinpoint the exact location of an issue from the information given, and so all locations should be considered to be approximate only. Even if a specific location was mentioned more than once, it has been plotted only once on the map. The location information provided by survey respondents is set out in Appendix 4.

Figure 3 Broad distribution of reported pollution issues in the Tyne catchment



Pollution from minewaters



Pollution - other sources

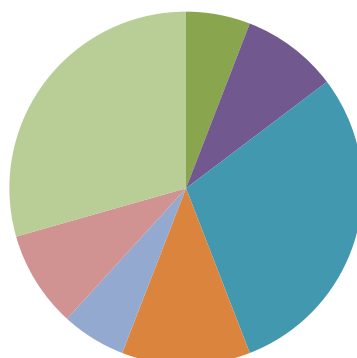


Figure 4 Map of pollution issues reported in the survey

Only responses which gave very specific location information are shown; most responses for agricultural run-off stated the problem was catchment or sub-catchment wide

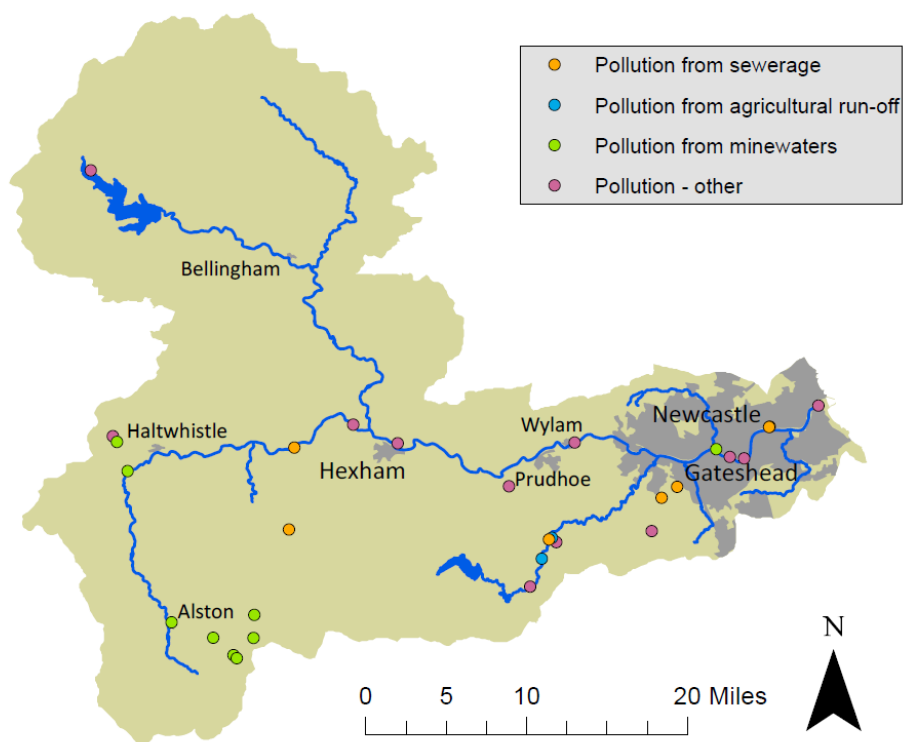


Figure 5 Broad distribution of reported anti-social behaviour issues in the Tyne catchment
 Figures for the Derwent may be skewed due to the limited face to face surveying of the public carried out in other locations

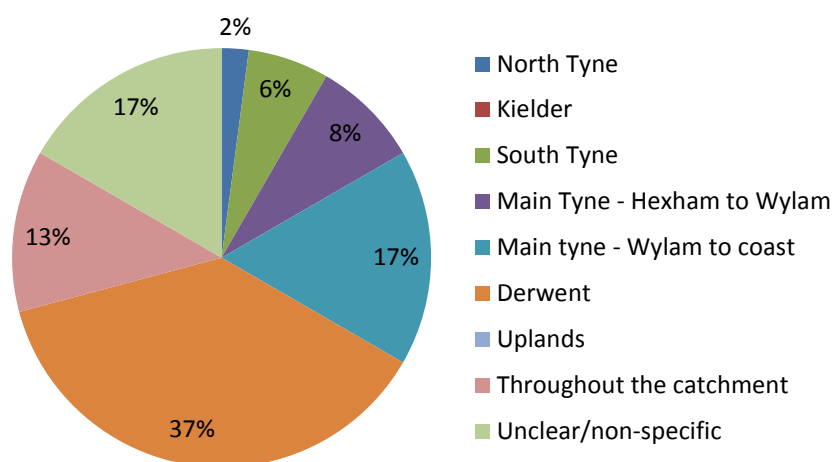


Figure 6 Map of anti-social behaviour issues reported in the survey
 Only responses which gave very specific location information are shown

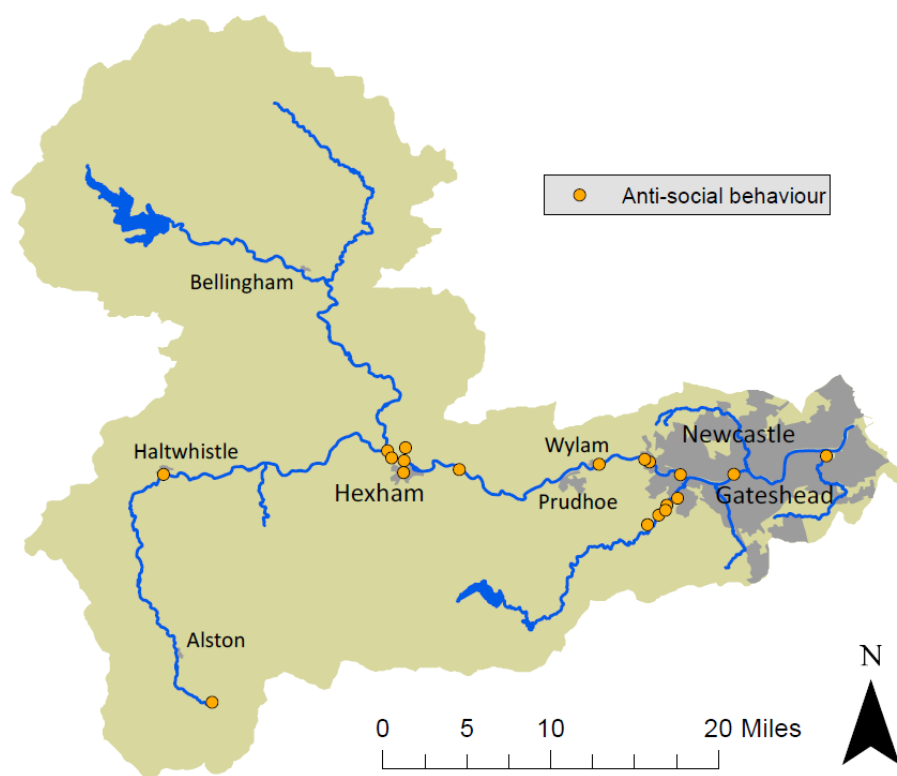


Figure 7 Broad distribution of reported recreational access issues in the Tyne catchment

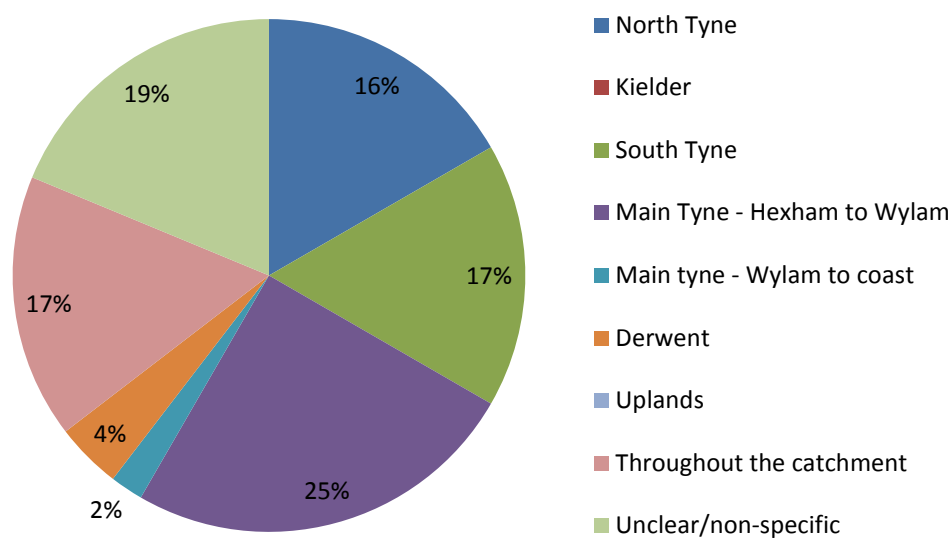


Figure 8 Map of recreational access issues reported in the survey
Only responses which gave very specific location information are shown

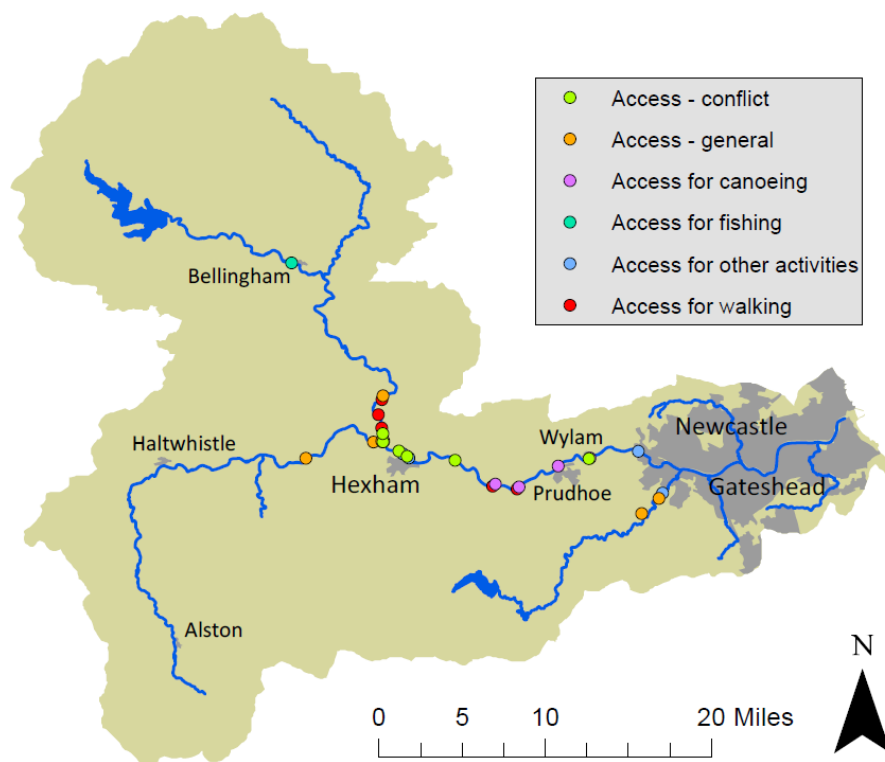


Figure 9 Broad distribution of reported sediment issues in the Tyne catchment

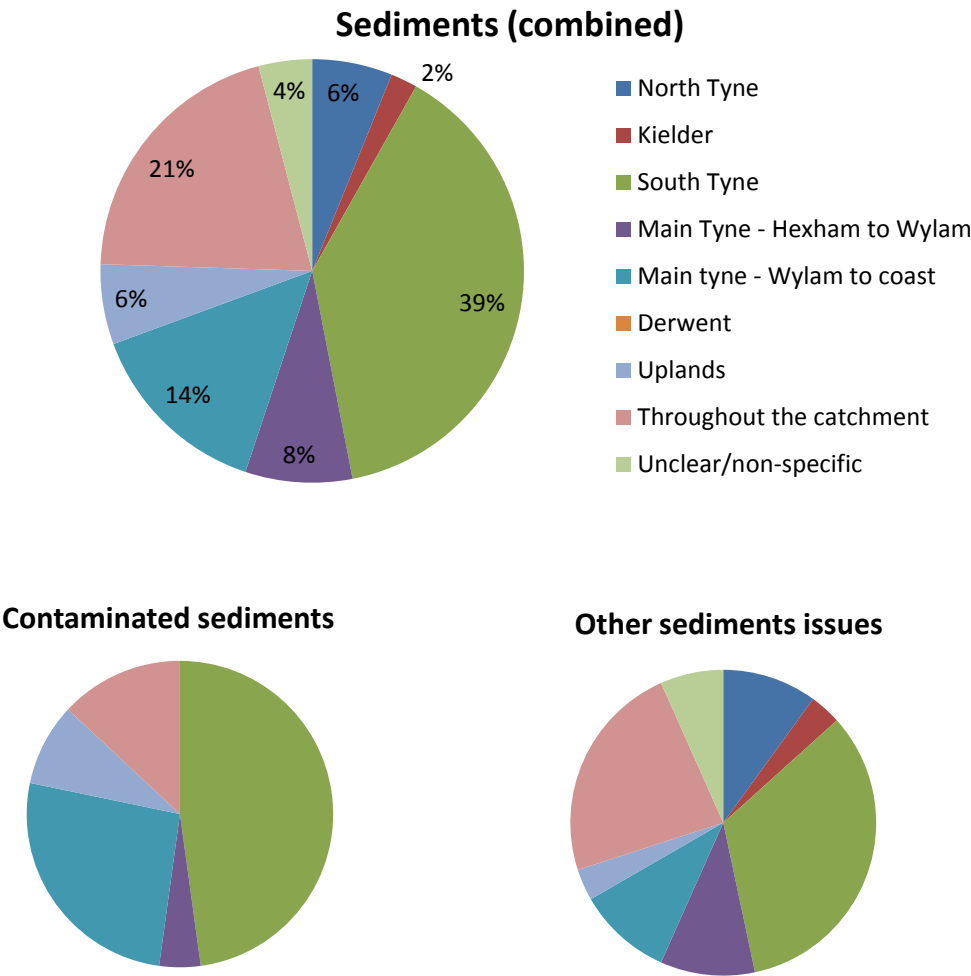


Figure 10 Map of sediment issues reported in the survey
Only responses which gave very specific location information are shown

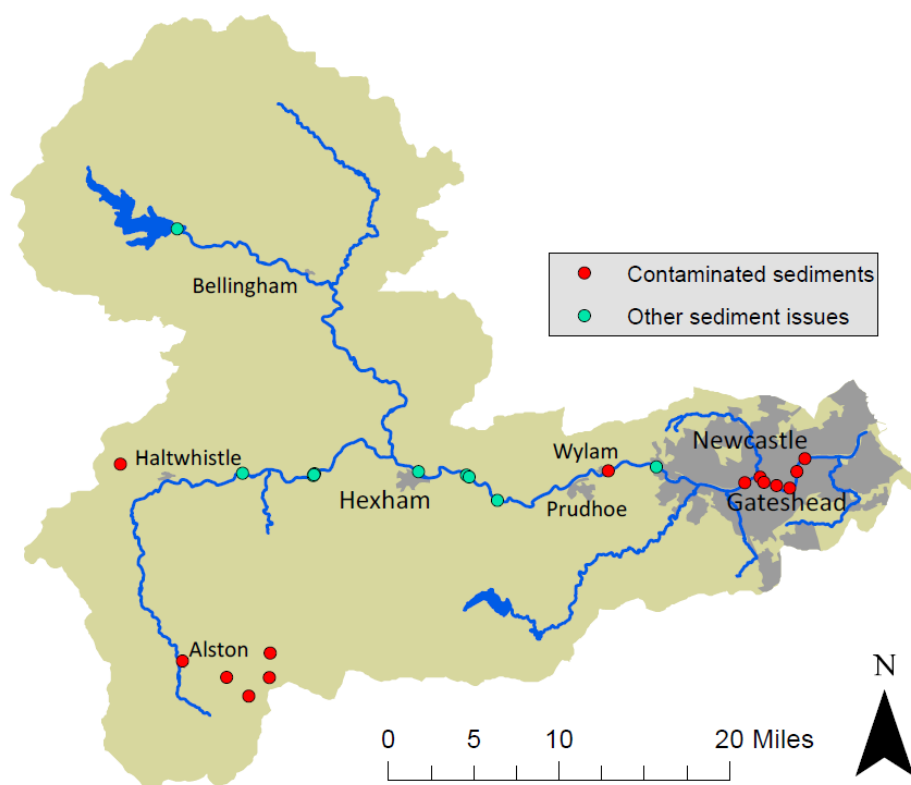


Figure 11 Broad distribution of reported invasive species issues in the Tyne catchment

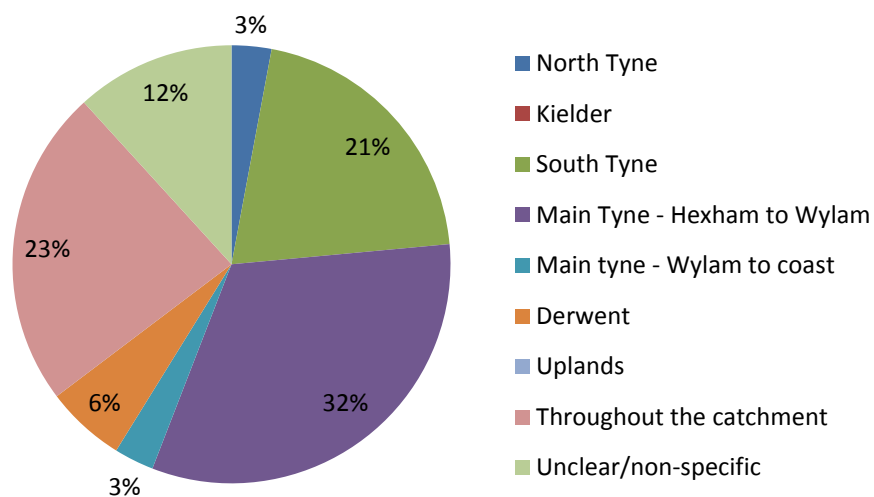


Figure 12 Map of invasive species issues reported in the survey
Only responses which gave very specific location information are shown

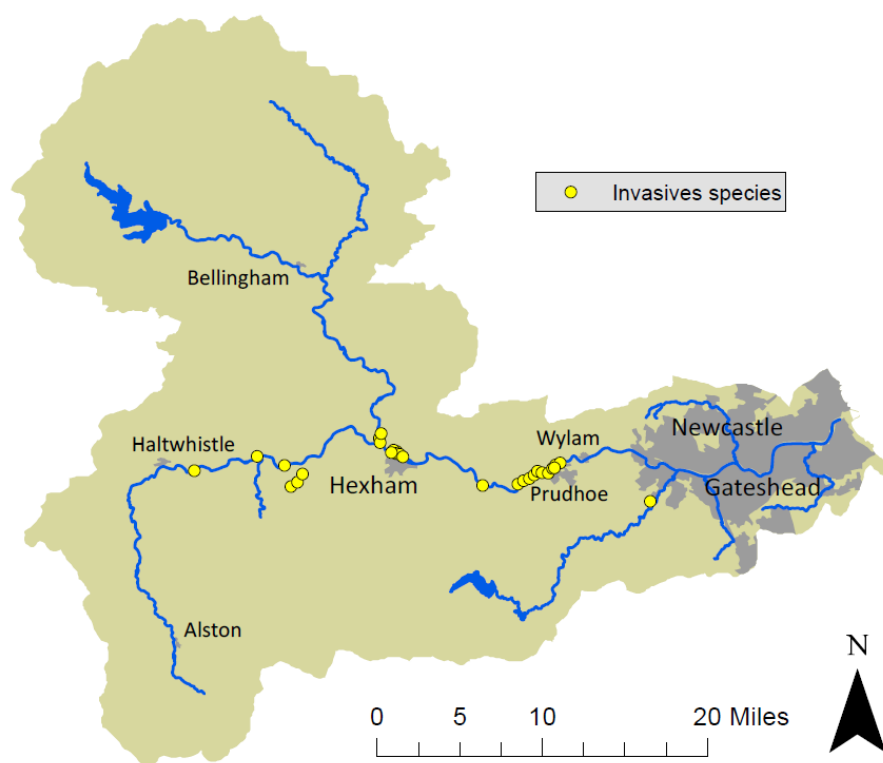


Figure 13 Broad distribution of reported in-river obstructions in the Tyne catchment

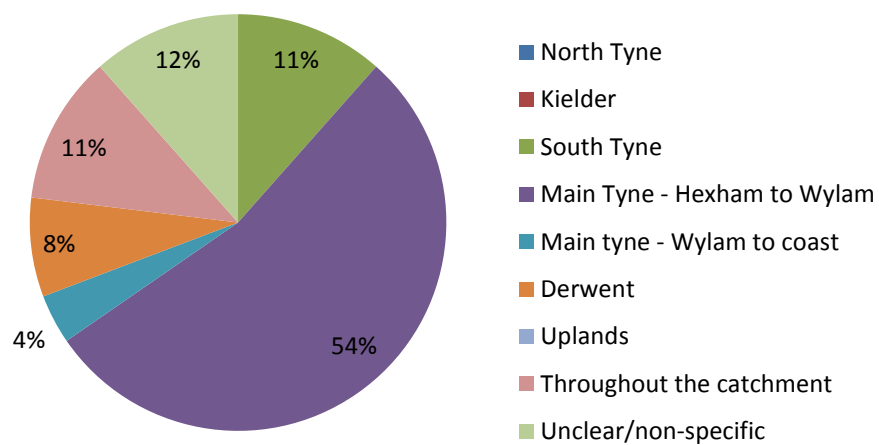


Figure 14 Map of in-river obstructions reported in the survey
Only responses which gave very specific location information are shown

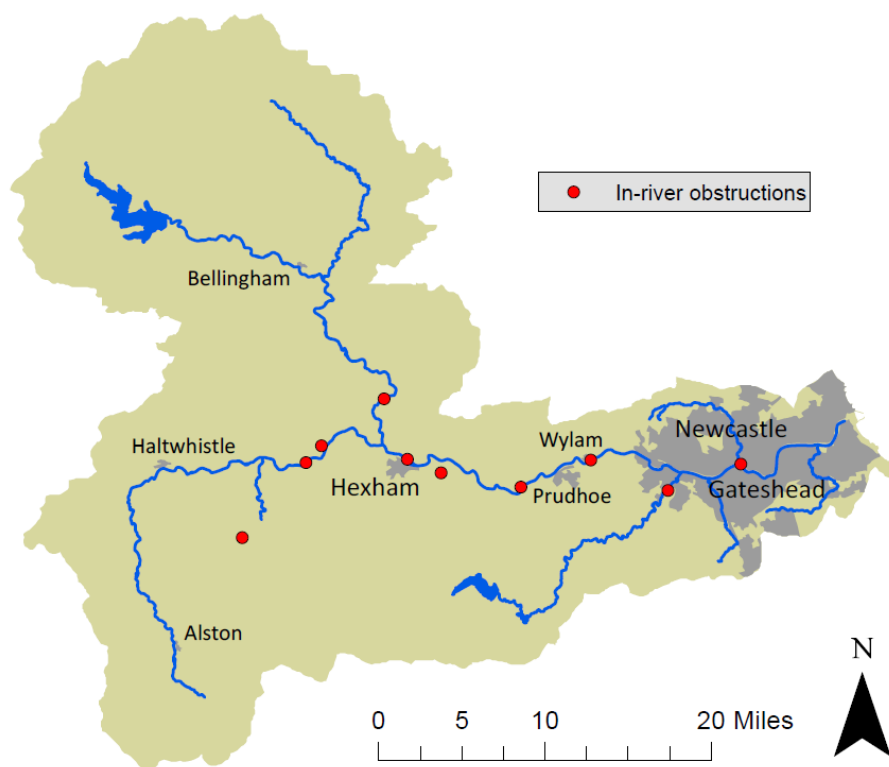


Figure 15 Broad distribution of reported fish population issues in the Tyne catchment

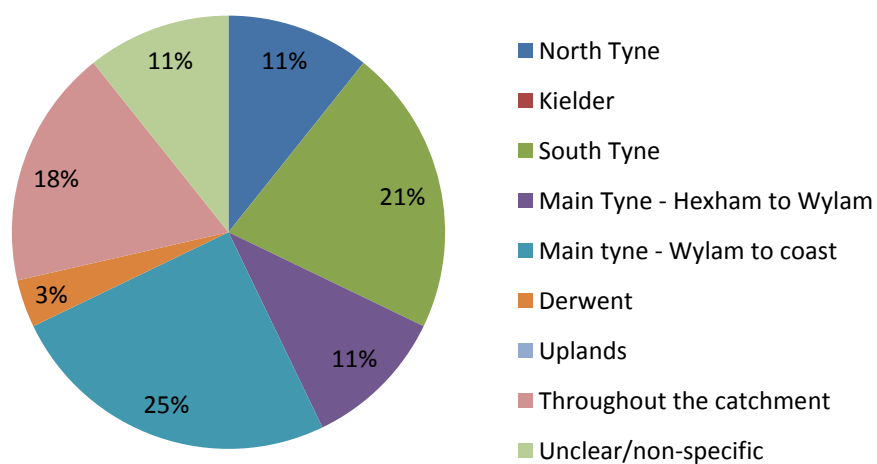
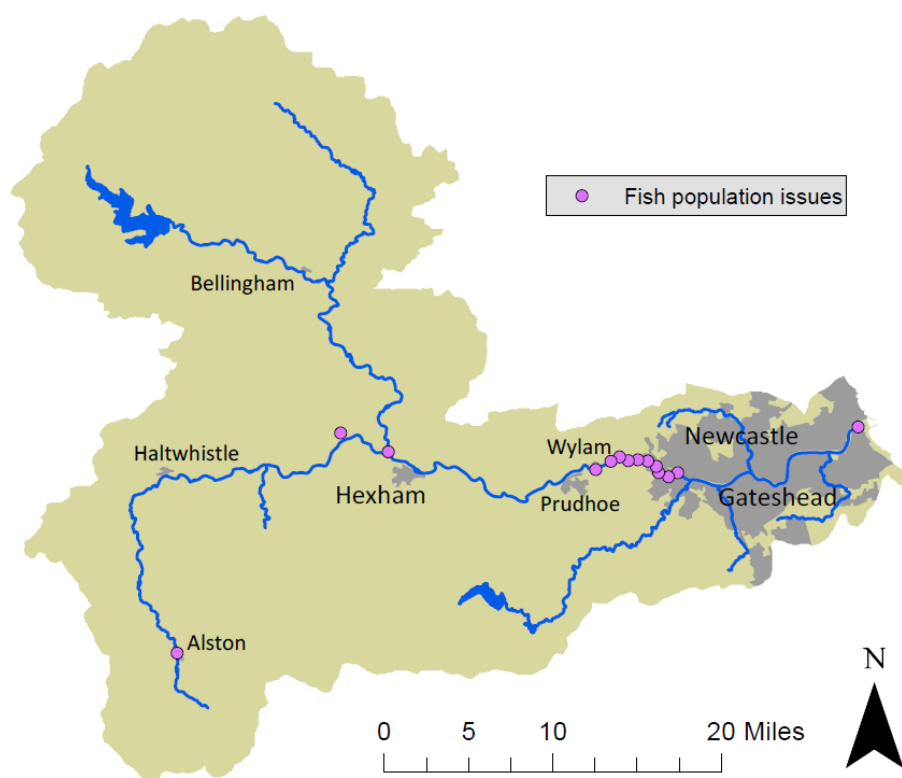


Figure 16 Map of fish population issues reported in the survey
Only responses which gave very specific location information are shown



Question 3 – Solutions

The solutions mentioned in the survey were varied but many fell into the same broad categories. The solutions were assigned to broad categories – see Figure 17 below. The complete survey responses and the category(ies) they were assigned to are set out in Appendix 4.

A range of solutions were suggested for the issues raised in the survey. Many respondents mentioned the same solutions for certain issues, for example community or voluntary action to remove invasive species. For some of the issues the solutions clearly favoured one or two types of action – for example the most frequently suggested solution by far for in-river obstructions was removal or modification. Likewise, for invasive species, the most frequently suggested solution was removal, though a range of other approaches to the problem were also suggested. For other issues raised the solutions suggested varied considerably, for example concerns about fish populations attracted a wide range of suggested solutions.

Figure 1 shows the categories of solutions suggested for the top 7 issues, the issues mentioned more than 20 times.

Figure 17 Number of responses for each solution category
A solution may fall in more than one category

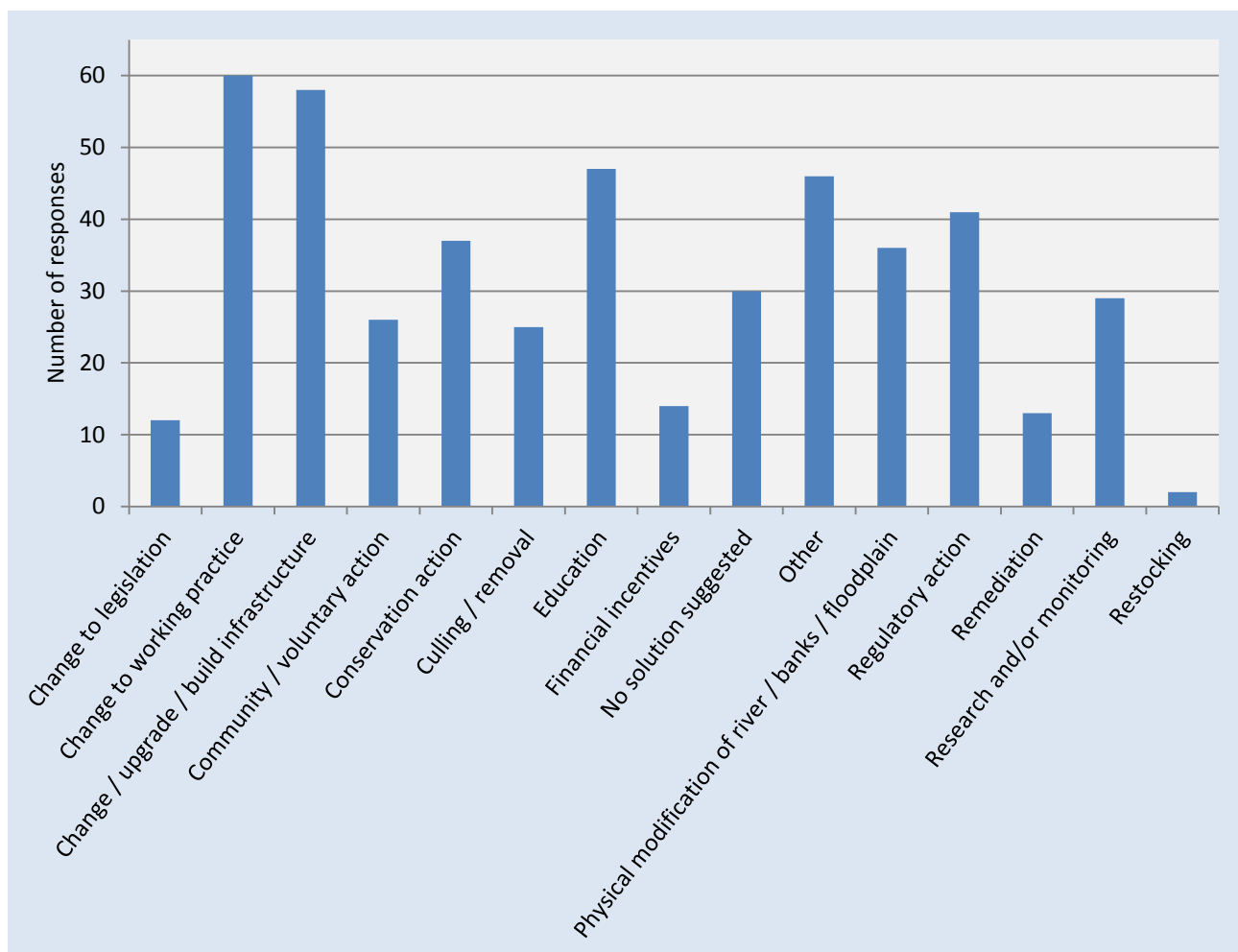
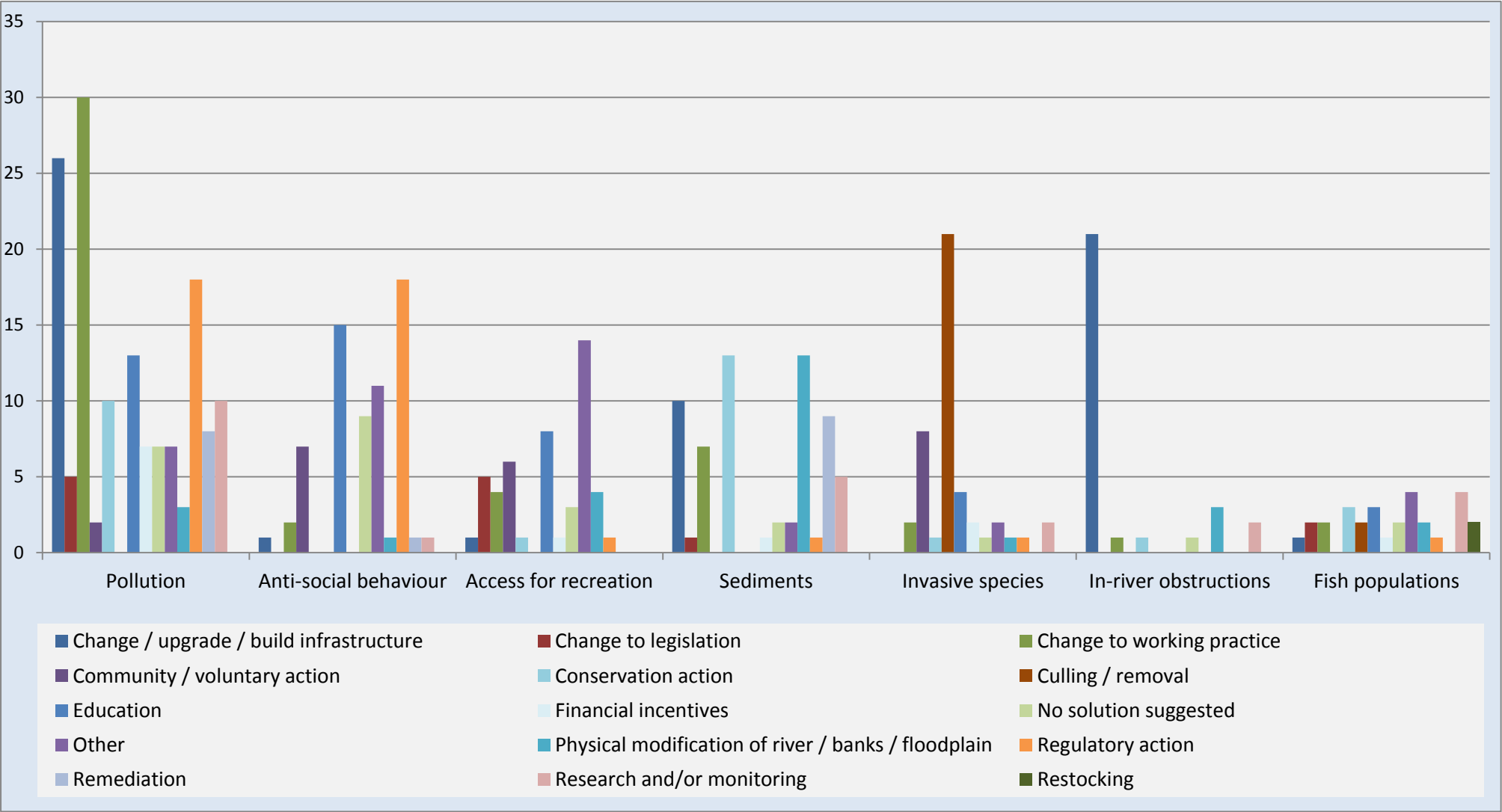


Figure 1 Suggested solutions for the ‘hot’ issues (those mentioned more than 20 times)



Question 4 – Flooding

209 respondents answered the question about flooding. Of these, 22% said they were affected by flooding. The responses varied in terms of the impacts of flooding – few reported their homes being flooded, but many reported being inconvenienced by floodwaters on roads and land. Some responses highlighted issues with access to rivers for recreation in times of flood. Figure 2 shows how the responses were split between flooding from surface sources (eg. road run-off/drains) and flooding from rivers. Figure 3 shows the locations of specific flood risk areas mentioned in the survey responses.

Seven responses highlighted concerns about the potential for flooding to become worse due to changing management practices (eg. less dredging / ceasing gravel removal from rivers / non-maintenance of flood defences) or from changing weather patterns.

The details provided by those affected by flooding are set out in Appendix 5.

Figure 2 Flooding impacts by source

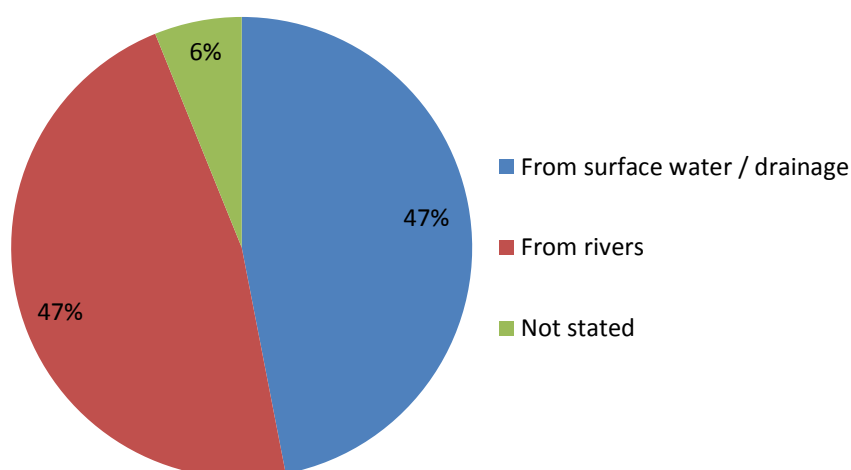
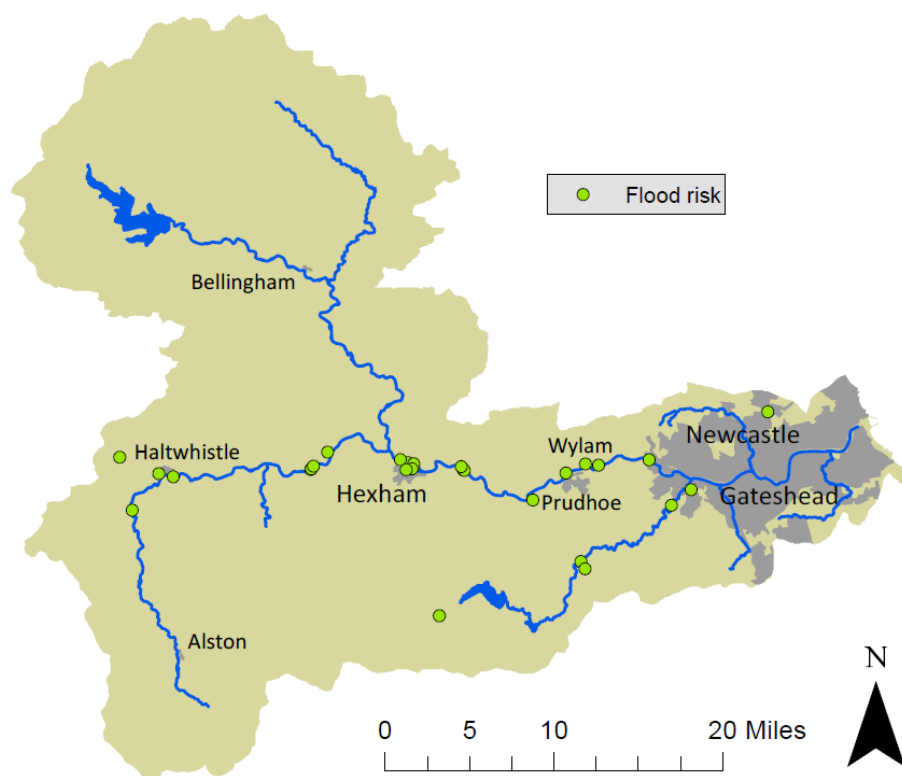


Figure 3 Map of flood risk locations highlighted in the survey responses

The locations include the responses to the specific question about flooding, and also responses to the 'issues' question which mentioned flood risk



Diversity of respondents

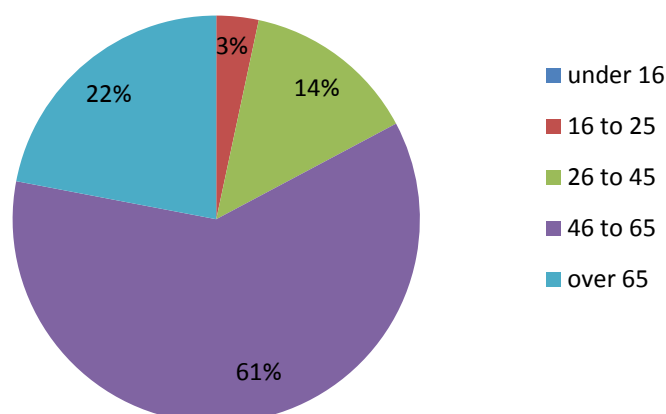
Gender

204 respondents (out of 218 in total) stated their gender. 69% were male and 31% were female.

Age

210 respondents answered the question about their age - see Figure 4 below. No responses were received from people aged under 16. Over 60% of respondents were in the '46 to 65' category, and a further 22% were in the 'over 65' category. People under the age of 46 were heavily under-represented, with just 17% of the total responses.

Figure 4 Age distribution of survey respondents



Sector

The e-survey asked respondents to identify which of 8 sectorial categories they belonged to (see Figure 5 below for the categories). Respondents could select more than one category if they wished and 70 respondents identified themselves as belonging to two or more groups. Where the sector question had not been answered in the e-survey, they were listed as 'unknown'.

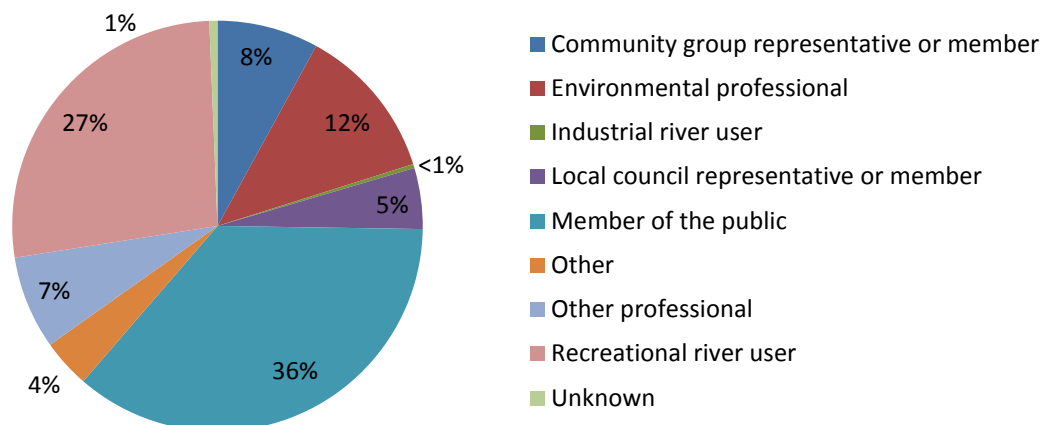
The paper survey did not ask respondents to identify which sector they belonged to. Where possible a sector was attributed to each response after completion. If it was unclear exactly where or when a survey had been completed the respondent's sector was listed as 'unknown'.

- paper surveys completed in public places (eg. on footpaths or at the county show) were allocated to the sector 'member of the public'
- paper surveys completed at Tyne Rivers Trust community group meetings were allocated to the sector 'community group member'
- paper surveys completed at angling shops were allocated to the sector 'recreational river user'.

Figure 5 below shows the sectors the respondents belonged to. Those who categorised themselves as 'Other' or 'Other professional' were able to give more detail if they wished. They included teachers and tutors, angling coaches, people associated with specific Tyne projects, farmers, fishery owners, environment champions and nature lovers, homeowners, outdoor activities instructors, archaeologists and historians, riparian owners, and tree wardens.

Figure 5 Sectorial distribution of survey respondents

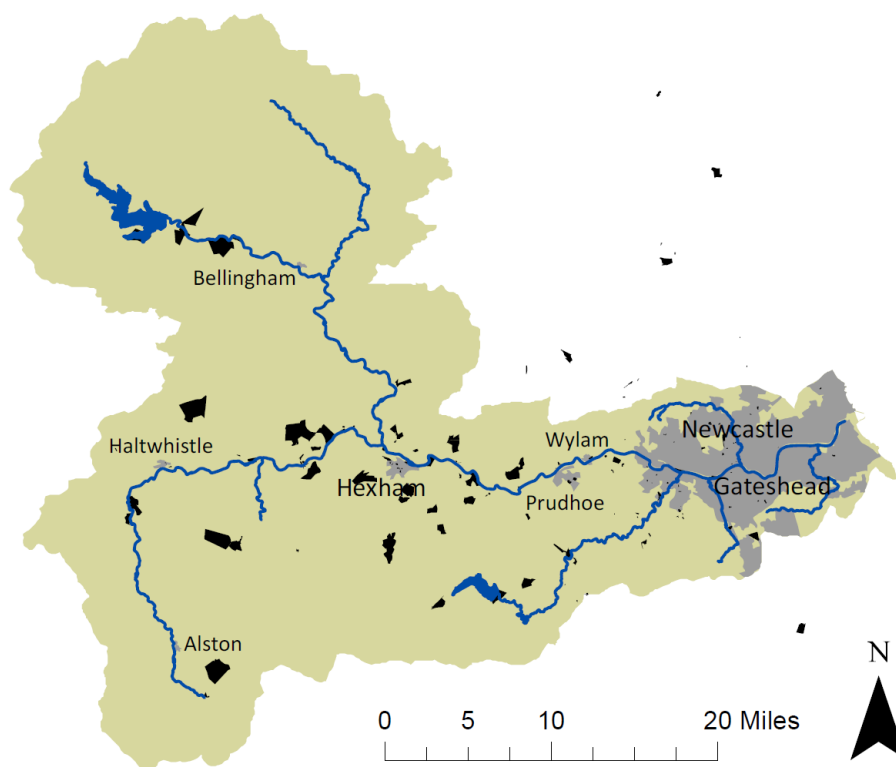
A respondent could allocate themselves to more than one sector



Respondents' home locations

The survey asked respondents to give their postcode. 196 gave their full postcode; 5 were from areas distant from the Tyne catchment; those that were within the Northumberland, Durham and Cumbria postcode areas have been plotted in Figure 6.

Figure 6 Postcode areas given by survey respondents



Appendix 1 E-survey

Tyne Catchment Survey

Tyne Rivers Trust is a registered charity which aims to conserve, protect, rehabilitate and improve the rivers in the Tyne catchment.

This survey aims to capture what you know about issues which affect the rivers within the Tyne catchment.

The information you provide will help us develop a plan to improve your river. This plan is Government-funded and recognised, and will become a key part of wider plans and policies to improve rivers throughout England.

In other words, what you know matters!

The survey is very short and should take only a few minutes to complete, depending on how much detail you choose to provide.

Issues affecting the Tyne

We want to know what you think the issues are which affect the rivers in the Tyne catchment, where they occur, and what the solutions might be.

The issues or solutions may not be directly in or next to rivers - the way we use land also affects rivers.

Please list only one issue at a time. You will be able to repeat the questions to list more issues, locations and solutions up to 5 times.

Name an issue which you believe affects rivers in the Tyne Catchment.

Where does this issue occur? (Please be as specific as you can and list multiple locations if the same problem occurs in more than one place.)

What do you think is the solution to this problem?

Add more issues

Do you want to repeat the previous question to add another issue?

☐

Yes I want to add another issue

☐

No, I want to go on to the next question

Issues affecting the Tyne

Tyne Catchment Survey

Name an issue which you believe affects rivers in the Tyne Catchment.

Where does this issue occur? (Please be as specific as you can and list multiple locations if the same problem occurs in more than one place.)

What do you think is the solution to this problem?

Add more issues

Do you want to repeat the previous question to add another issue?

- ☐ Yes I want to add another issue
- ☐ No, I want to go on to the next question

Issues affecting the Tyne

Name an issue which you believe affects rivers in the Tyne Catchment.

Where does this issue occur? (Please be as specific as you can and list multiple locations if the same problem occurs in more than one place.)

What do you think is the solution to this problem?

Add more issues

Do you want to repeat the previous question to add another issue?

- ☐ Yes I want to add another issue
- ☐ No, I want to go on to the next question

Issues affecting the Tyne

Tyne Catchment Survey

Name an issue which you believe affects rivers in the Tyne Catchment.

Where does this issue occur? (Please be as specific as you can and list multiple locations if the same problem occurs in more than one place.)

What do you think is the solution to this problem?

Add more issues

Do you want to repeat the previous question to add another issue?

☐

Yes I want to add another issue

☐

No, I want to go on to the next question

Issues affecting the Tyne

Name an issue which you believe affects rivers in the Tyne Catchment.

Where does this issue occur? (Please be as specific as you can and list multiple locations if the same problem occurs in more than one place.)

What do you think is the solution to this problem?

Flooding

We would like to know if you are affected by flooding, either from rivers or from infrastructure like drains.

Flooding may affect you at home, at work, or as you travel around the Tyne area.

Tyne Catchment Survey

Are you affected by flooding?

- ☐ Yes
- ☐ No

Please provide details about the flooding that affects you.

About you

We want to know a little about you to make sure we get survey responses from a wide range of people who visit or live or work in the Tyne area. This information will not be used for any other purpose, and it will not be shared with any third party.

Are you male or female?

- ☐ Male
- ☐ Female

How old are you?

- ☐ under 16
- ☐ 16 to 25
- ☐ 26 to 45
- ☐ 46 to 65
- ☐ over 65

What is your postcode?

Tyne Catchment Survey

Which of the following best describes you? You may select more than one option if appropriate.

- ☐ Member of the public
- ☐ Environmental professional
- ☐ Other professional
- ☐ Recreational river user
- ☐ Industrial river user
- ☐ Local council representative or member
- ☐ Community group representative or member

Other (please specify)

About us

Tyne Rivers Trust is an independent charity dedicated to managing and improving the Tyne catchment.

Would you like to receive our bi-annual newsletter about the Tyne Rivers Trust's work?

- ☐ Yes
- ☐ No

Please state your name and email and/or postal address so we can include you on our newsletter mailing list

About us

We have a growing number of active volunteers who are the eyes and ears of the Trust on the ground, as well as being a valuable source of information on the river, its wildlife and the people of the Tyne Catchment.

Would you like information about volunteering on our river projects?

- ☐ Yes
- ☐ No

Tyne Catchment Survey

Please give your name and preferred contact details

Thank you

Thank you for completing our survey.

Please encourage your friends and colleagues to also complete the survey by forwarding this link:
<https://www.surveymonkey.com/s/3P6G7WD>.

The information we gather will help us manage and improve the Tyne catchment.

For more information on our project to develop a catchment plan for the Tyne, please visit www.tynecatchment.org

Appendix 2 Paper survey

Can you spare 3 minutes to tell us about the issues on the Tyne?
Your knowledge will help us plan how to improve your river

What are the issues which you believe affect the Tyne?

Where are these issues? (be as specific as you can)

What are the solutions?


Are you affected by flooding? If yes, please give details

About you: ☐ Female ☐ Male
☐ Under 16 ☐ 16-25 ☐ 26-45 ☐ 46-65 ☐ Over 65
Your postcode



If you would like to receive Tyne Rivers Trust's newsletter or would like to volunteer on our river projects, please tick and write your name and contact details overleaf

☐ Volunteering
☐ Newsletter

TYNE RIVERS TRUST



Visit www.tynecatchment.org
to follow progress as we
develop a catchment plan
to improve the Tyne



@tynenverstrust

Appendix 3 Distribution of paper surveys

Survey site	Location	Number distributed	Number collected	Survey style	Date of survey	Additional notes
Lower Derwent walk / cycle path	near Winlaton Mill	20	20	Face to face over a period of 2 hours	12 June 2012	
Northumberland County Show	Corbridge	35	5	Face to face over a period of 7 hours	4 June 2012	
Haltwhistle Fayre	Haltwhistle Leisure Centre	10	2	Face to face	19 May 2012	
Gateshead mayoral event	Gateshead Civic Centre	60	1	Surveys left on tables	18 May 2012	The survey was announced during a speech to the attendees and distributed afterwards
Hallington Reservoir	North Tyne	30	1	Surveys left in angling hut/shop	26 May to 25 June 2012	A laminated sheet with a link to the e-survey was also displayed
Kielder Castle Visitor Centre	Kielder Castle	20	0	Surveys left at visitor centre	26 May to 25 June 2012	A laminated sheet with a link to the e-survey was also displayed
Tower Knowe Visitor Centre	Kielder	20	2	Surveys left at visitor centre	26 May to 25 June 2012	A laminated sheet with a link to the e-survey was also displayed. Unfortunately the 2 responses completed were misplaced and could not be included in the results.
Leaplish Visitor Centre	Kielder	20	2	Surveys left at visitor centre	26 May to 25 June 2012	A laminated sheet with a link to the e-survey was also displayed
Swalwell Visitor Centre	Swalwell Bank, Gateshead	10	4	Surveys left at visitor centre	26 May to 25 June 2012	A laminated sheet with a link to the e-survey was also displayed
Thornley Woodland Centre	Rowlands Gill, Gateshead	20	0	Surveys left at visitor centre	26 May to 25 June 2012	A laminated sheet with a link to the e-survey was also displayed
Flash Fishing Tackle	Seaton Delaval	20	0	Surveys left in shop	22 May to 25 June 2012	A laminated sheet with a link to the e-survey was also displayed
Lewis Tackle Supplies	Whitley Bay	30	0	Surveys left in shop	22 May to 25 June 2012	A laminated sheet with a link to the e-survey was also displayed
Billys Fishing	North Shields	30	0	Surveys left in shop	22 May to 25 June 2012	A laminated sheet with a link to the e-survey was also displayed

Survey site	Location	Number distributed	Number collected	Survey style	Date of survey	Additional notes
ID Fishing	Walker	30	0	Surveys left in shop	22 May to 25 June 2012	A laminated sheet with a link to the e-survey was also displayed
Bagnall & Kirkwood	Newcastle City Centre	30	0	Surveys left in shop	22 May to 25 June 2012	A laminated sheet with a link to the e-survey was also displayed
Frasers Angling & Outdoors	Gateshead	30	0	Surveys left in shop	22 May to 25 June 2012	A laminated sheet with a link to the e-survey was also displayed
AMH Angling	Stanley	30	0	Surveys left in shop	22 May to 25 June 2012	A laminated sheet with a link to the e-survey was also displayed
Orvis	Corbridge	25	3	Surveys left in shop	29 May to 25 June 2012	A laminated sheet with a link to the e-survey was also displayed
Derwent reservoir	Derwent	30	0	Surveys left in angling hut/shop	22 May to 25 June 2012	A laminated sheet with a link to the e-survey was also displayed
Haydon Bridge Riverwatch group	Haydon Bridge	40	7		29 May 2012	Surveys passed on by group members to Haydon Bridge library and local Women's Institute group
Tyne Green Golf Club	Tyne Green, Hexham	12			30 May to 2 July 2012	A laminated sheet with a link to the e-survey was also displayed
Friends of Tyne Green event	Tyne Green, Hexham	20	0		30 May 2012	A number of people said they would complete the online survey
Church High School	Jesmond	20	-		20 June 2012	Year 11 students asked to complete the survey online
Hexham Try It Day	Hexham	10	0		24 June 2012	
Environment Agency Fisheries Forum	EA offices, Newcastle	20	0		20 June 2012	
Axwell Park Angling Committee Meeting	Axwell Park, Derwent	10	4		June 2012	

Approximately 200 further paper surveys were distributed by Tyne Rivers Trust staff during the survey period.

Appendix 4 Issues, locations and solutions identified in the Survey

These are the unedited issues, locations and solutions identified by survey respondents (green columns), together with the category(ies) each response was assigned to after the survey was completed (grey columns).

Issue	Issue category(ies)	Location	Broad location category(ies)	Solution	Solution category(ies)
1. CSO overflows. Weak planning and irresponsible greenfield developer exploitation of known capacities of an old system without bringing appropriate investment to that system to make it future proof.	<ul style="list-style-type: none"> • Pollution - sewerage 	Ouseburn/ North Newcastle. Ouseburn mouth.	<ul style="list-style-type: none"> • Main Tyne - Wylam to coast 	Upper Ouseburn: As with other forms of irresponsible development, invent ways of retro-charging private organisations appreciative of impacts of their plans and charged with the responsibility of responsible development ie developer beware and developer pays. Make it possible to sack local officers and charge their councillors whose performance does not demonstrate action in the public good.	<ul style="list-style-type: none"> • Change to legislation • Regulatory action • Change to working practice
2. Ousebrn barrage.	<ul style="list-style-type: none"> • In-river obstructions 	Ouseburn/ North Newcastle. Ouseburn mouth.	<ul style="list-style-type: none"> • Main Tyne - Wylam to coast 	2. The barrage has been a demonstrable and expensive failure as predicted due to partiality of authority and organisations charged with expertise and oversight. The result was in contradiction to all good policy. The Newcastle Council contribution to the PURE programme (Public participation) provides the background (the whitewash) to all Ouseburn issues and was a travesty that still requires honest scrutiny. Without such scrutiny we will have no change and no sense of progress in our public administrations. Close ref not myopic reference to PPS statements; environmental impacts (properly scoped cost benefit analysis) would help.	<ul style="list-style-type: none"> • Change to working practice
3. minewater overflow in wet conditions from old mineworkings... particularly that 500 yards from source.	<ul style="list-style-type: none"> • Sediments – contaminated • Pollution - minewaters 	Ouseburn/ North Newcastle. Ouseburn mouth.	<ul style="list-style-type: none"> • Main Tyne - Wylam to coast 	With the mineworkings... industrial scale heat recovery programmes etc to make capping viable?	<ul style="list-style-type: none"> • Change / upgrade / build infrastructure • Remediation • Financial incentives

Issue	Issue category(ies)	Location	Broad location category(ies)	Solution	Solution category(ies)
Access	• Access - general	entire catchment area	• Throughout the catchment	right to roam, similar to Scotland.	• Change to legislation
Access for canoeists	• Access for canoeing	All the white water	• Unclear/non-specific	Fishermen to have the same relaxed views as the continentals and cooperate more	• Other
Access for kayaking and canoeing.	• Access for canoeing	The entire catchment above Wylam.	• North Tyne • South Tyne • Main Tyne - Hexham to Wylam	Recognition of the right to navigate all inland waterways.	• Community / voluntary action
Access for the recreating public to and along the rivers and their corridor.	• Access - general	All along the river corridor.	• Throughout the catchment	Two prongs. a) A very long term plan (100years) to enable access to and along the banks for cyclists, walkers including where appropriate access points from the public highway. Small car parks. From train stations, etc. b) Access to and along the river for Canoeists and Anglers etc. Both ideas must be accompanied by a sensible and pragmatic approach to wild life and the sustainability of habitat and the environment, a sort of M of U/access arrangement.	• Change to working practice • Community / voluntary action
Access for walking is poor on many stretches of the rivers.	• Access for walking	Bywell to Riding Mill. The former Hexham to Chollerford railway line	• Main Tyne - Hexham to Wylam	Permissive rights of way. New public rights of way	• Change to legislation
Access to river access over land	• Access – general	various locations	• Unclear/non-specific	open access like Scotland has agreements in place or legislation	• Change to legislation
Access to riverbanks, lack of rubbish bins	• Access - general • Other	Various areas	• Unclear/non-specific	Publish maps of rivers and walks locations	• Other
Access to spawning areas	• In-river obstructions • Fish populations	Throughout catchment area	• Throughout the catchment	More work to improve access to spawning areas on smaller tributaries	• Change / upgrade / build infrastructure
Access to spawning areas	• Fish populations		• Unclear/non-specific	Funding, education, research	• Financial incentives • Research and/or monitoring • Education

Issue	Issue category(ies)	Location	Broad location category(ies)	Solution	Solution category(ies)
Access to the river for recreational canoeing	<ul style="list-style-type: none"> • Access for canoeing 	Potentially all parts except the publically owned parts at Tyne Green and Prudhoe Riverside Parks	<ul style="list-style-type: none"> • Not clear 	Amendment of right to roam legislation along the lines of the Scottish act	<ul style="list-style-type: none"> • Change to legislation
access to the river when water levels permit for canoeists	<ul style="list-style-type: none"> • Access for canoeing 	throughout the catchment	<ul style="list-style-type: none"> • Throughout the catchment 	agree a water level that is appropriate for canoeists based on the EA river water levels.	<ul style="list-style-type: none"> • Change to working practice
Acidification of runoff in North Tyne by Kielder Forest	<ul style="list-style-type: none"> • Forestry • Pollution - other 	North Tyne as far as confluence at Warden	<ul style="list-style-type: none"> • North Tyne 	Enhanced land management in Kielder Forest	<ul style="list-style-type: none"> • Change to working practice
Agricultural & forestry run off	<ul style="list-style-type: none"> • Pollution - agricultural run-off • Forestry 	Catchment wide	<ul style="list-style-type: none"> • Throughout the catchment 	closer control and monitoring of agricultural practices. Possibly introduce river bank buffer zones to limit residues leaching into the water courses.	<ul style="list-style-type: none"> • Regulatory action • Research and/or monitoring • Conservation action
Agricultural field drainage	<ul style="list-style-type: none"> • Land drainage 	Catchment wide, particularly more intensively farmed areas	<ul style="list-style-type: none"> • Throughout the catchment 	Research into the issue and targeted risk based approach to tackle some of the negative effects	<ul style="list-style-type: none"> • Research and/or monitoring • Change to working practice
Agricultural land use	<ul style="list-style-type: none"> • Land drainage • Pollution - agricultural run-off 	Abundant but local impacts vary	<ul style="list-style-type: none"> • Unclear/non-specific 	Catchment Sensitive Farming techniques	<ul style="list-style-type: none"> • Change to working practice
Agricultural land use eg: poaching of river banks by cattle and sediment run off from ploughed fields	<ul style="list-style-type: none"> • Erosion of river banks • Pollution - agricultural run-off 	Most rural reaches of the Tyne and Tributaries	<ul style="list-style-type: none"> • South Tyne • North Tyne • Main Tyne - Hexham to Wylam 	Land owner advice on better management of watercourses and riparian habitat on their land	<ul style="list-style-type: none"> • Education
Agricultural pollution	<ul style="list-style-type: none"> • Pollution - agricultural run-off 	system wide	<ul style="list-style-type: none"> • Throughout the catchment 		<ul style="list-style-type: none"> • No solution suggested
Agricultural pollution, particularly insecticides	<ul style="list-style-type: none"> • Pollution - agricultural run-off 	Most of the river and tributaries, although Derwent and North Tyne appears less affected than South Tyne, believe this may be related to impact of large reservoirs at the head of these rivers.	<ul style="list-style-type: none"> • Throughout the catchment 	Stronger legislation to limit use of insecticides, improved agricultural practices.	<ul style="list-style-type: none"> • Change to legislation • Change to working practice

Issue	Issue category(ies)	Location	Broad location category(ies)	Solution	Solution category(ies)
Agricultural pollution/pesticides	<ul style="list-style-type: none"> • Pollution - agricultural run-off 		<ul style="list-style-type: none"> • Unclear/non-specific 		<ul style="list-style-type: none"> • No solution suggested
Agricultural runoff	<ul style="list-style-type: none"> • Pollution - agricultural run-off • Soil erosion 	The catchment is a rural catchment so this is a widespread issue. A specific example can be found at Ebchester/Shotley Bridge where agricultural land adjoins the river edge.	<ul style="list-style-type: none"> • Throughout the catchment 	Increase the planting belt between the agricultural land and the river to act as a filter similar to a reed bed before runoff hits the river.	<ul style="list-style-type: none"> • Conservation action
Agricultural run-off	<ul style="list-style-type: none"> • Pollution - agricultural run-off 	worst cases are well known, but throughout catchment	<ul style="list-style-type: none"> • Throughout the catchment 	Community work to remove invasive species.	<ul style="list-style-type: none"> • Community / voluntary action
Agricultural runoff/pollution/siltation	<ul style="list-style-type: none"> • Pollution - agricultural run-off 	Arable land throughout the system	<ul style="list-style-type: none"> • Throughout the catchment 	Liaise with farming community and better education and monitoring	<ul style="list-style-type: none"> • Other • Education • Research and/or monitoring
Agricultural runoff: particularly from stackyards/animal housing and from muckspreading on well-drained 'improved' fields	<ul style="list-style-type: none"> • Pollution - agricultural run-off • Land drainage 	medium-high altitude beef farms, and piggeries	<ul style="list-style-type: none"> • Not clear 	better control of drainage from stackyards, and reduced muck spreading on well drained fields: limits on drains.	<ul style="list-style-type: none"> • Change / upgrade / build infrastructure • Change to working practice
Anecdotal reduction of trout stocks	<ul style="list-style-type: none"> • Fish populations 	South Tyne	<ul style="list-style-type: none"> • South Tyne 	Determining if this is an accurate picture and then habitat improvement programme.	<ul style="list-style-type: none"> • Research and/or monitoring • Conservation action
anglers taking red and black fish	<ul style="list-style-type: none"> • Fish populations 	tends to be on the upper reaches of the catchment on the North and South Tyne and Rede	<ul style="list-style-type: none"> • North Tyne • South Tyne 	Education	<ul style="list-style-type: none"> • Education
Argricultural land drainage	<ul style="list-style-type: none"> • Land drainage 	Throughout the catchment - both upland and lowland field drainage	<ul style="list-style-type: none"> • Throughout the catchment 	Landscape scale approach to researching and remediating the negative cumulative effects	<ul style="list-style-type: none"> • Research and/or monitoring • Remediation
Artificial bank obstructions and erosion	<ul style="list-style-type: none"> • In-river obstructions • Erosion - river banks 		<ul style="list-style-type: none"> • Unclear/non-specific 	Easement	<ul style="list-style-type: none"> • Change / upgrade / build infrastructure
Artificial obstructions	<ul style="list-style-type: none"> • In-river obstructions 		<ul style="list-style-type: none"> • Unclear/non-specific 	Removal of obstructions	<ul style="list-style-type: none"> • Change / upgrade / build infrastructure

Issue	Issue category(ies)	Location	Broad location category(ies)	Solution	Solution category(ies)
Artificial reservoir flow release regimes	<ul style="list-style-type: none"> River flows Water abstraction 	North Tyne and Rede, Derwent, Erring Burn - all reservoir affected sub catchments	<ul style="list-style-type: none"> North Tyne 	Research and modelling of the effects of ecologically determined flow regimes, trial tests and monitoring of outcomes	<ul style="list-style-type: none"> Research and/or monitoring
availability and cost	<ul style="list-style-type: none"> Access - other 	main tyne	<ul style="list-style-type: none"> Main Tyne - Hexham to Wylam Main Tyne - Wylam to coast 	opening water that the council or any other public bodies own	<ul style="list-style-type: none"> Change to working practice
Back up flooding of foul drains	<ul style="list-style-type: none"> Flood risk 	Westlands Haltwhistle	<ul style="list-style-type: none"> South Tyne 	The water authority may have resolved this a year or two ago	<ul style="list-style-type: none"> Other
balsam	<ul style="list-style-type: none"> Invasive species 	various locations	<ul style="list-style-type: none"> Unclear/non-specific 	riparians to take responsibility	<ul style="list-style-type: none"> Change to working practice
Bank erosion	<ul style="list-style-type: none"> Erosion of river banks 	All over the place	<ul style="list-style-type: none"> Throughout the catchment 	For someone to take responsibility for it	<ul style="list-style-type: none"> Other
Bank erosion	<ul style="list-style-type: none"> Erosion of river banks 	Stocksfield Burn	<ul style="list-style-type: none"> Main Tyne – Hexham to Wylam 	The kind of soft/green engineering solution recently carried out on Stocksfield Burn appears to work well and with the necessary financial support could be carried out more widely.	<ul style="list-style-type: none"> Physical modification of river / banks / floodplain
Big build up of stones and gravel on riverbed especially since gravel was stopped being dug out of river	<ul style="list-style-type: none"> Flood risk Sediments - other 	In Haydon Bridge - both sides of bridges and between bridges	<ul style="list-style-type: none"> South Tyne 	Stones and gravel should be removed and river banks built up more to prevent flooding	<ul style="list-style-type: none"> Physical modification of river / banks / floodplain
Bird predation of fish stocks	<ul style="list-style-type: none"> Other 	Throughout the catchment area	<ul style="list-style-type: none"> Throughout the catchment 	Control population size	<ul style="list-style-type: none"> Culling / removal
Blocked conduits in small streams leading to flow over local roads (lanes) - in some cases eroding road surfaces - in winter water freezes over road.	<ul style="list-style-type: none"> In-river obstructions Flood risk 	Specifically west of Plunderheath beneath the waterfall - this is part of the Northern section of the 'John Martin' Trail. Grid reference approx 659849.	<ul style="list-style-type: none"> Main Tyne - Hexham to Wylam 	Unblock the conduit, enlarge, place metal grids over entrance and exit to stop blockage and resurface road.	<ul style="list-style-type: none"> Change / upgrade / build infrastructure

Issue	Issue category(ies)	Location	Broad location category(ies)	Solution	Solution category(ies)
Blocked trash screens which can have an effect on flood risk	• Flood risk	various locations along our stretch of the river Don.	• Main Tyne - Wylam to coast	Better maintenance and clearance	• Change to working practice
Brwn trout numbers in the main tyne	• Fish populations	The area I have Knowledge of is the lower main tyne above Wylam	• Main Tyne - Hexham to Wylam	Fly life and habitat, the low number of spring fly eg large dark olives.	• Other
Campsites - consequent pollution - beer cans, clothing etc	• Anti-social behaviour	Meadows situated on banks of river (Lower Derwent walk)	• Derwent	Monitoring - enforce ban currently in force	• Research and/or monitoring • Regulatory action
Canoes - but only the irresponsible ones. There has been an increase in the last 2-3 years.	• Access - conflict	North & South Tynes	• South Tyne • North Tyne	Enforcement of access regulations	• Regulatory action
Can't think of any	• No known issues	n/a	• Unclear/non-specific	n/a	• No solution suggested
Cattle drinking water	• Erosion of river banks • Pollution - other	Upstream areas	• Uplands	Fencing off the river	• Conservation action
Chemicals from land draining into rivers	• Pollution - agricultural run-off	where there is agricultural land	• Throughout the catchment	Making farmers/landowners more aware of chemical risks.	• Education
Clarity of usage of the river for canoeing activities.	• Access for canoeing	Everywhere above Wylam	• South Tyne • North Tyne • Main Tyne - Hexham to Wylam	Forming a mangement structure to enable all water users to discuss shared use of the rivers, to address issues of environmental concerns and suitable water levels. Provide information both on line and at launching sites to make users aware of good practice and personal safety.	• Other • Community / voluntary action • Education
Clean water - CSO / industrial - farm pollution	• Pollution – sewerage • Pollution - agricultural run-off	CSOs	• Unclear/non-specific	Increase s. pump capacity; separate rainwater drainage	• Change / upgrade / build infrastructure
climate change, notably warming of rivers and poor management of 'dene' woodland	• Climate change	mainly headwaters in previously wooded burns and currently poorly maintained wooded 'denes'	• Uplands	Urgent targeting of EWFigs and other funds	• Other

Issue	Issue category(ies)	Location	Broad location category(ies)	Solution	Solution category(ies)
Combined Sewer Overflows/badly managed septic tanks	• Pollution - sewerage	Throughout the catchment	• Throughout the catchment	Build remedial actions into water industry asset plans	• Change / upgrade / build infrastructure
Compaction of gravel below Kielder Reservoir	• Sediments - other	Upper reaches of North Tyne	• North Tyne	Introduce gravel along the banks of tributaries to wash into river when streams flood	• Physical modification of river / banks / floodplain
Connectivity of Rivers and Burns. There are a range of barriers and obstructions.	• In-river obstructions	Many of the tributaries and main river stems.	• Not clear	Barrier removal where at all possible. Fish passes are second best.	• Change / upgrade / build infrastructure
Consett YMCA use the River Derwent for many outdoor water activities, some people end up with stomach bugs	• Pollution – sewerage • Pollution - other	This issue is ongoing, different days on different months, but it keeps happening	• Unclear/non-specific	Do not know the answer, could there be more rigorous monitoring of water conditions and the sewerage output.	• Regulatory action • Research and/or monitoring
Contaminated sediment issues	• Sediments - contaminated	Generally within the area between Newcastle Bridges and Wallsend which impacts on the operation of the port and more generally throughout the upriver tidal areas and up into the headwaters of the Tyne.	• Main Tyne - Wylam to coast	Continued research into disposal and remediation options and treatment of contamination at source	• Research and/or monitoring • Remediation
Contaminated sediments in the estuary	• Sediments - contaminated	worst cases are well known, but throughout catchment	• Throughout the catchment	Pressure on government to tackle contaminated sediments	• Change to legislation • Remediation
Contamination of the estuary by the former St Anthony's Tar Works, Walker Riverside	• Pollution - other	Walker Riverside	• Main Tyne - Wylam to coast	A remediation scheme consisting of an impermeable barrier between the contamination and the river sediments	• Change / upgrade / build infrastructure • Remediation
Continued pollution in the estuary	• Pollution - other • Fish populations	Estuary	• Main Tyne - Wylam to coast	Swifter action to prevent fish deaths rather than waiting for it to happen.	• Other
CSO's	• Pollution - sewerage	In particular Haydon Bridge picnic site	• South Tyne	I'm not a water engineer but a shift of CSO location would seem most appropriate	• Change / upgrade / build infrastructure

Issue	Issue category(ies)	Location	Broad location category(ies)	Solution	Solution category(ies)
culverts where landowners have put stream underground. These would often have been slow moving vegetated streams which caught sediment before it reached main rivers.	• Other	widespread agricultural improvement practice.	• Throughout the catchment	can we identify culverts that could be turned into silt traps by opening them up and providing crowwing places instead?	<ul style="list-style-type: none"> • Research and/or monitoring • Change / upgrade / build infrastructure
Cyclists - aggressive behaviour	• Anti-social behaviour	Lower Derwent walk	• Derwent	?	<ul style="list-style-type: none"> • No solution suggested
Dams	• In-river obstructions	Hexham, Haydon Bridge	• Main Tyne - Hexham to Wylam	Fish passes	<ul style="list-style-type: none"> • Change / upgrade / build infrastructure
Dams on Main Tyne	• In-river obstructions	Wylam, Bywell, Hexham.	• Main Tyne - Hexham to Wylam	Better fish passes. Restricted fishing below. Deepening of river below.	<ul style="list-style-type: none"> • Change / upgrade / build infrastructure • Physical modification of river / banks / floodplain
Development of flood plains which means the river flow is faster and can wash out redds etc.	<ul style="list-style-type: none"> • Other • Fish populations 	Gravel workings on the North Tyne, up and down the River	<ul style="list-style-type: none"> • North Tyne • Main Tyne - Hexham to Wylam • Main Tyne - Wylam to coast 	Re-in statement of flood plains where feasible	<ul style="list-style-type: none"> • Physical modification of river / banks / floodplain
Difficulty in negotiating the river for fishing and walking [response person 1 of 2 on one survey card]	<ul style="list-style-type: none"> • Access for fishing • Access for walking 	All pathways as they are being washed away	• Unclear/non-specific	Removing gravel which is surely able to be used elsewhere	<ul style="list-style-type: none"> • Physical modification of river / banks / floodplain
Difficulty in negotiating the river for fishing and walking [response person 2 of 2 on one survey card]	<ul style="list-style-type: none"> • Access for fishing • Access for walking 	All pathways as they are being washed away	• Unclear/non-specific	Removing gravel which is surely able to be used elsewhere	<ul style="list-style-type: none"> • Physical modification of river / banks / floodplain
Diffuse pollution	• Pollution - sewerage	misconnections	• Unclear/non-specific	More advice to property owners and incentives to change misconnections	<ul style="list-style-type: none"> • Education • Change to working practice • Financial incentives

Issue	Issue category(ies)	Location	Broad location category(ies)	Solution	Solution category(ies)
Diffuse pollution from agriculture	<ul style="list-style-type: none"> • Pollution - agricultural run-off 	To a greater or lesser degree, everywhere - but principally from silage effluent on livestock farms and agrochemicals on arable land	<ul style="list-style-type: none"> • Throughout the catchment 	Greater uptake by farmers to the Voluntary Initiative	<ul style="list-style-type: none"> • Change to working practice
Diffuse pollution from agriculture	<ul style="list-style-type: none"> • Pollution - agricultural run-off 	Across the entire catchment.	<ul style="list-style-type: none"> • Throughout the catchment 	Better education, increased use of agri-environment schemes through out the catchment.	<ul style="list-style-type: none"> • Education • Change to working practice • Financial incentives
Diffuse rural pollution	<ul style="list-style-type: none"> • Pollution - other • Pollution - agricultural run-off 	Widespread	<ul style="list-style-type: none"> • Throughout the catchment 	Better riparian management, reduced stock density, buffer zones etc.	<ul style="list-style-type: none"> • Change to working practice
Dog fouling [response person 1 of 2 on one survey card]	<ul style="list-style-type: none"> • Anti-social behaviour 		<ul style="list-style-type: none"> • Unclear/non-specific 		<ul style="list-style-type: none"> • No solution suggested
Dog fouling [response person 2 of 2 on one survey card]	<ul style="list-style-type: none"> • Anti-social behaviour 		<ul style="list-style-type: none"> • Unclear/non-specific 		<ul style="list-style-type: none"> • No solution suggested
Dog litter, general rubbish - especially after Bank Holidays picnics	<ul style="list-style-type: none"> • Anti-social behaviour 	Near car parks, areas near picnic benches and rivers [Lower Derwent walk]	<ul style="list-style-type: none"> • Derwent 	More wardens?	<ul style="list-style-type: none"> • Regulatory action
Dog walkers not picking up	<ul style="list-style-type: none"> • Anti-social behaviour 	Corbridge	<ul style="list-style-type: none"> • Main Tyne - Hexham to Wylam 	More dog bins	<ul style="list-style-type: none"> • Other
Drainage	<ul style="list-style-type: none"> • Land drainage 	High catchments	<ul style="list-style-type: none"> • Uplands 	More work needed to restore water-retaining properties of the moors	<ul style="list-style-type: none"> • Conservation action
drains on moorland	<ul style="list-style-type: none"> • Land drainage • River flows • Erosion 	Redesdale moorland and allotments. Some drains on blanket bog, many drains on degraded wet heath and acid grassland; many steep sided; not good for lambs or small birds, does the drainage also increase speed of runoff and contribute to erosion downstream?	<ul style="list-style-type: none"> • Uplands 	mapping, categorising, working with partners to prioritise blocking in a strategic way (NNPA and NWT, NE).	<ul style="list-style-type: none"> • Conservation action

Issue	Issue category(ies)	Location	Broad location category(ies)	Solution	Solution category(ies)
Erosion - resulting in the loss of nest sites for speices of birds such as sand martins.	<ul style="list-style-type: none"> Erosion of river banks 	River Tyne west of A69 bridge	<ul style="list-style-type: none"> Unclear/non-specific 	Artificial nest sites	<ul style="list-style-type: none"> Conservation action
Erosion especially tributaries such as the River Allen. Trees falling into the river can create dams but also are a hazard to canoeists.	<ul style="list-style-type: none"> In-river debris Erosion - river banks 	River Allen (main) downstream of Cuplar Bridge and also approx 1 mile above Hagg Weir above Planky Mill	<ul style="list-style-type: none"> South Tyne 	Adding groins or large stones would prevent erosion where it is worst. Fallen trees could be identified for later removal. Also where trees are snagged on bridges again canoeists could inform Highways. I notified Northumberland County of a tree that has been on Ovingham Bridge since last year. This tree is still there and could weaken the bridge.	<ul style="list-style-type: none"> Physical modification of river / banks / floodplain
Erosion gravel movements	<ul style="list-style-type: none"> Erosion of river banks 	Hexham east of bridge Warden upstream of Paper Mill Bardon Mill - bank adjacent to sewage treatment works	<ul style="list-style-type: none"> Main Tyne - Hexham to Wylam 		<ul style="list-style-type: none"> No solution suggested
Erosion of former floodplains which contain metal rich sediment	<ul style="list-style-type: none"> Sediments - contaminated Erosion - river banks 	All along the river system where floodplains are now re-eroding due to incising river	<ul style="list-style-type: none"> Throughout the catchment 	Bank stabilisation and river management	<ul style="list-style-type: none"> Physical modification of river / banks / floodplain
Erosion of historic mine dumps by River Nent.	<ul style="list-style-type: none"> Sediments - contaminated 	Nenthead, south of the village, adjacent to the Smallcleugh Mine SSSI	<ul style="list-style-type: none"> South Tyne 	Construct retaining wall at base of dump	<ul style="list-style-type: none"> Change / upgrade / build infrastructure
erosion of the banks	<ul style="list-style-type: none"> Erosion of river banks 	River South Tyne from Crow wood to Warden	<ul style="list-style-type: none"> South Tyne 	possible reinforcement of the banks?	<ul style="list-style-type: none"> Physical modification of river / banks / floodplain
Erosion of the Nenthead Mines SAM	<ul style="list-style-type: none"> Erosion of river banks Pollution - minewaters 	Within the Nenthead Mines SAM	<ul style="list-style-type: none"> South Tyne 	Resources required to rehabilitate and maintain the watercourses which drain and cross the site	<ul style="list-style-type: none"> Physical modification of river / banks / floodplain Remediation
excess speed of certain motorised craft	<ul style="list-style-type: none"> Anti-social behaviour 	scotswood to ryton	<ul style="list-style-type: none"> Main Tyne - Wylam to coast 	greater policing or points for reporting incidents	<ul style="list-style-type: none"> Regulatory action

Issue	Issue category(ies)	Location	Broad category(ies) location	Solution	Solution category(ies)
Excessive fine sediment delivery to watercourses	<ul style="list-style-type: none"> • Sediments - other 	This is a diffuse problem throughout the catchment	<ul style="list-style-type: none"> • Throughout the catchment 	A risk based landscape scale approach to tackling excess fine sediment sources	<ul style="list-style-type: none"> • Conservation action
Excessive soil and road rubbish pouring from drains and from outflow from drainage from old opencast works into the Tipalt Burn every time there are heavy rains in Greenhead - I know it's a flash flooding river - but these days it has to receive run-off from many sources all in the village centre or at Bankfoot, coming much faster than in the old days and bringing silt and pollution much more than in the past when water was held better on the tops - which is where it needs to be held once again	<ul style="list-style-type: none"> • Sediments - contaminated • Pollution - other • River flows 	Greenhead village centre, coming off the golf course, off the ex-opencast area above the Greenhead Burn, off the cycle track and off the roads. Once there were cattle troughs, wells etc and once the peat on the moorland held back the water - it floods down into bank foot bringing masses of stones, soil and branches with it. This is because the opencast people made drainage when they left!	<ul style="list-style-type: none"> • South Tyne 	If we could store the water at the tops of the hills around the village and use it to power hydrams in a controlled way, there would be benefits all round! We can't put the peat back. But we can surely stop any more open casting on the tops in this whole area as way of beginning to help avert flooding in the lowlands - perhaps even paying hill farmers to keep their water ?	<ul style="list-style-type: none"> • Change / upgrade / build infrastructure • Change to working practice
Extraction	<ul style="list-style-type: none"> • Water abstraction 	Various places particularly Main Tyne agricultural needs.	<ul style="list-style-type: none"> • Main Tyne - Hexham to Wylam • 	Register of all extraction points	<ul style="list-style-type: none"> • Regulatory action •
factorys discharging	<ul style="list-style-type: none"> • Pollution - other 	various	<ul style="list-style-type: none"> • Unclear/non-specific 	no factorys along river	<ul style="list-style-type: none"> • Change to working practice
fallen trees	<ul style="list-style-type: none"> • In-river debris 	various areas on the north tyne	<ul style="list-style-type: none"> • North Tyne 		<ul style="list-style-type: none"> • No solution suggested

Issue	Issue category(ies)	Location	Broad location category(ies)	Solution	Solution category(ies)
farm buildings with poor guttering, rainwater getting from mucky farmyards into rivers. farms have become industrial but often buildings are not suitable. farmers are worried that to make people such as TRT about such issues would put them in breach of cross compliance so do nothing instead.	<ul style="list-style-type: none"> • Pollution - agricultural run-off 	widespread	<ul style="list-style-type: none"> • Throughout the catchment 	best time to visit is when it is raining in the winter when animals are inside. Need to get farmer to understand the problem but also very useful to ask him what he could suggest as a solution; they are often good at coming up with solutions.	<ul style="list-style-type: none"> • Education • Change to working practice
Farm rubbish being dumped in river on the back of a flood	<ul style="list-style-type: none"> • Anti-social behaviour 	rivers Rede and South Tyne	<ul style="list-style-type: none"> • South Tyne 	Education and prosecutions!!	<ul style="list-style-type: none"> • Education • Regulatory action
fertilizer pollution	<ul style="list-style-type: none"> • Pollution - agricultural run-off 	All down the tyne area	<ul style="list-style-type: none"> • Throughout the catchment 	Not fertilizing land next to the river restoring old water meadows allowing growth on the banks	<ul style="list-style-type: none"> • Change to working practice • Conservation action
field drainage and farming run off, fertilizers and slurry etc.	<ul style="list-style-type: none"> • Pollution - agricultural run-off • Land drainage 	virtually every farm but especially crop farms	<ul style="list-style-type: none"> • Unclear/non-specific 	to stop flooding, creating of swamp areas and blocking of drainage system, for fertilizers more precise spreading or high tax rates on fertilizers, for slurry problems high fines or jail sentences	<ul style="list-style-type: none"> • Change / upgrade / build infrastructure • Change to working practice • Regulatory action
Fine metalliferous sedimentation	<ul style="list-style-type: none"> • Sediments - contaminated 	Principally in the lower reaches - large increases in volume from Wylam down due to floodplain influences	<ul style="list-style-type: none"> • Main Tyne - Wylam to coast 	Dredging - but we're not allowed to say that! Better management of 'catchment connectivity' and links between floodplain sediment stores during high discharge events	<ul style="list-style-type: none"> • Conservation action • Physical modification of river / banks / floodplain
Fine sediment in the river channels	<ul style="list-style-type: none"> • Sediments - other 	Throughout the catchment particularly areas of intensive agricultural activity and in previously engineered channels	<ul style="list-style-type: none"> • Throughout the catchment 	catchment survey and sediment source controls	<ul style="list-style-type: none"> • Research and/or monitoring • Conservation action
Fish & Wildlife	<ul style="list-style-type: none"> • Fish populations 		<ul style="list-style-type: none"> • Unclear/non-specific 		<ul style="list-style-type: none"> • No solution suggested

Issue	Issue category(ies)	Location	Broad location category(ies)	Solution	Solution category(ies)
Fish access to areas above Hexham	<ul style="list-style-type: none"> In-river obstructions 	Hexham Fish Pass is a real obstacle in low flows.	<ul style="list-style-type: none"> Main Tyne - Hexham to Wylam 	A new fish pass is necessary and most anglers were under the impression it would have been built by now. Anglers were under the impression that the £250,000 the Rivers Trust got from the Tyne Tunnel would go towards this work. What is actually happening AS WE HEAR NOTHING ABOUT THIS NOW.?	<ul style="list-style-type: none"> Change / upgrade / build infrastructure
Fish mortalities in the estuary in hot dry summers	<ul style="list-style-type: none"> Fish populations River flows 	Mainly in the upper estuary	<ul style="list-style-type: none"> Main Tyne - Wylam to coast 	Formalising of the use of releases from Kielder to attract fish into the freshwater river (as shown by research which I carried out through JBA consulting for the EA). Not sure whether this has been formally agreed.	<ul style="list-style-type: none"> Change to working practice
Fish obstructions to movements	<ul style="list-style-type: none"> In-river obstructions 	River Derwent (bottom 5 miles)	<ul style="list-style-type: none"> Derwent 	Fish easements	<ul style="list-style-type: none"> Change / upgrade / build infrastructure
Fish pass at Dilston is not a good design is very difficult for fish to ascend.	<ul style="list-style-type: none"> In-river obstructions 	Devils Water	<ul style="list-style-type: none"> Main Tyne - Hexham to Wylam 	New fish pass required	<ul style="list-style-type: none"> Change / upgrade / build infrastructure
Fish passage	<ul style="list-style-type: none"> In-river obstructions 	Hexham	<ul style="list-style-type: none"> Main Tyne - Hexham to Wylam 	Build fish pass	<ul style="list-style-type: none"> Change / upgrade / build infrastructure
Fish travel	<ul style="list-style-type: none"> In-river obstructions 	Tyne Bridge, Hexham	<ul style="list-style-type: none"> Main Tyne - Hexham to Wylam 	A fish ladder	<ul style="list-style-type: none"> Change / upgrade / build infrastructure
Fishing debris within the river - trawls, nets and wires.	<ul style="list-style-type: none"> In-river debris Anti-social behaviour 	Lower harbour and Fish Quay	<ul style="list-style-type: none"> Main Tyne - Wylam to coast 	Education of fishermen and policing by regulatory authorities	<ul style="list-style-type: none"> Education Regulatory action
Fishing should be more accessible for everyone	<ul style="list-style-type: none"> Access for fishing 		<ul style="list-style-type: none"> Unclear/non-specific 		<ul style="list-style-type: none"> No solution suggested
Flash pollution	<ul style="list-style-type: none"> Pollution - other 		<ul style="list-style-type: none"> Unclear/non-specific 		<ul style="list-style-type: none"> No solution suggested

Issue	Issue category(ies)	Location	Broad location category(ies)	Solution	Solution category(ies)
Floating debris	<ul style="list-style-type: none"> In-river debris 	Along the whole tidal range.	<ul style="list-style-type: none"> Main Tyne - Wylam to coast 	Education of the public. Continuation of the Clean Tyne Project.	<ul style="list-style-type: none"> Education Conservation action
Floating debris	<ul style="list-style-type: none"> In-river debris 	The whole of the Tyne especially the lower regions towards the Sea mouth.	<ul style="list-style-type: none"> Main Tyne - Hexham to Wylam Main Tyne - Wylam to coast 	Possible catchment areas to block and recover such debris, beach clean ups to prevent re entry to the river.	<ul style="list-style-type: none"> Change to working practice Community / voluntary action
floating debris	<ul style="list-style-type: none"> In-river debris 	all over	<ul style="list-style-type: none"> Throughout the catchment 	catch logs at source	<ul style="list-style-type: none"> Change to working practice
Flood damage from the last major river flood.	<ul style="list-style-type: none"> Flood risk 	Past the weir by the Ebchester Boathouse.	<ul style="list-style-type: none"> Derwent 	Clean up tree damage and reeds to let the water flow naturally.	<ul style="list-style-type: none"> Conservation action
Flood risk - drainage / bank erosion / flooding	<ul style="list-style-type: none"> Flood risk Erosion - river banks Sediments - other 	Corbridge 1/4 mile upstream and downstream of 1674 road bridge	<ul style="list-style-type: none"> Main Tyne - Hexham to Wylam 	Remove willow and grass from new (post 1986) gravel deposits currently growing due to vegetation	<ul style="list-style-type: none"> Physical modification of river / banks / floodplain
Flood waters rise and fall quicker than years ago and I think this has a large effect on the wildlife	<ul style="list-style-type: none"> Flood risk Land drainage 	Haltwhistle reaches of the South Tyne	<ul style="list-style-type: none"> South Tyne 	Minimise drainage on feeder stream areas or help create deeper pools on main streams?	<ul style="list-style-type: none"> Conservation action Physical modification of river / banks / floodplain
flooding	<ul style="list-style-type: none"> Flood risk 	Winlaton Mill and Swallwell	<ul style="list-style-type: none"> Derwent 	control of tidal waters	<ul style="list-style-type: none"> Change / upgrade / build infrastructure
Flooding	<ul style="list-style-type: none"> Flood risk 	Haydon Bridge	<ul style="list-style-type: none"> Main Tyne - Hexham to Wylam 	Dredge the river regularly to lower the river bed. This used to be done years ago	<ul style="list-style-type: none"> Physical modification of river / banks / floodplain
Flooding	<ul style="list-style-type: none"> Flood risk 	The Old Mart site (Sainsburys and old peoples homes)	<ul style="list-style-type: none"> South Tyne 	This was investigated two years ago after serious flooding took place caused by storm water not being able to get into the South Tyne	<ul style="list-style-type: none"> No solution suggested

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Flooding	<ul style="list-style-type: none"> Flood risk 	West of Bywell Bridge and onto Ovingham and Stocksfield Burn at Burnside and Brumwell Court near A695	<ul style="list-style-type: none"> Main Tyne – Hexham to Wylam 	The EA will never be able to support schemes to protect small numbers of rural properties. There is probably no answer given that too many properties have been permitted in flood risk areas though continuing to provide householders with advice on flood protection equipment is well worthwhile.	<ul style="list-style-type: none"> Education
Flooding of houses at Wellbank, Corbridge.	<ul style="list-style-type: none"> Flood risk Sediments - other 	Wellbank, Corbridge, NE45 5AN.	<ul style="list-style-type: none"> Main Tyne - Hexham to Wylam 	Reduction of gravel accretion adjacent to Corbridge bridge.	<ul style="list-style-type: none"> Physical modification of river / banks / floodplain
Flooding. Access along riverbank is getting more inaccessible due to water erosion, especially for fishermen and walkers. Both river and bank is a total eyesore.	<ul style="list-style-type: none"> Flood risk Access - general Other 	Haydon Bridge, below waterfall to picnic area	<ul style="list-style-type: none"> South Tyne 	Removing stones	<ul style="list-style-type: none"> Physical modification of river / banks / floodplain
Fly tipping	<ul style="list-style-type: none"> Anti-social behaviour 	Riverbanks especially those of tributaries of the Tyne. The River Don in the Jarrow area is especially bad. Disposal of oils and fats in these areas are also a problem	<ul style="list-style-type: none"> Main Tyne - Wylam to coast 	Education, prosecution and physical barriers to keeping vehicular access away from secluded spots. More regular clean ups before hot-spots get out of hand.	<ul style="list-style-type: none"> Education Regulatory action Change / upgrade / build infrastructure
Fly tipping	<ul style="list-style-type: none"> Anti-social behaviour 	South side if the river	<ul style="list-style-type: none"> Unclear/non-specific 	land scape the area	<ul style="list-style-type: none"> Physical modification of river / banks / floodplain
Fly Tipping, specifically dumping in rivers	<ul style="list-style-type: none"> Anti-social behaviour 	most secluded locations	<ul style="list-style-type: none"> Unclear/non-specific 	Increased litter picking/clean up efforts, increased consequences for those caught fly tipping/dumping.	<ul style="list-style-type: none"> Community / voluntary action Regulatory action
Footpaths	<ul style="list-style-type: none"> Access for walking 	Continous footpath on one or other or both banks would be fantastic	<ul style="list-style-type: none"> Throughout the catchment 	Lots of money	<ul style="list-style-type: none"> Financial incentives

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Former mine spoil washing into the river system particularly during storm events	<ul style="list-style-type: none"> • Sediments - contaminated • Pollution - minewaters 	Former mining areas in upper catchment	<ul style="list-style-type: none"> • Uplands 	Sediment management on river edge, bank stabilisation, and capping of former spoil heaps	<ul style="list-style-type: none"> • Conservation action • Physical modification of river / banks / floodplain • Change / upgrade / build infrastructure
Giant Hogweed	<ul style="list-style-type: none"> • Invasive species 	It is quite prolific in the Ovingham area.	<ul style="list-style-type: none"> • Main Tyne - Hexham to Wylam 	Someone is trying to control it, but a whole-river solution needs to be followed, and a key part of that solution should be an aim to get to all flowering specimens to prevent them seeding. If cutting is done as close as possible to the individual flowers, they will quickly wither. If (a large portion of?) stem is left attached to the umbels, the flowers can mature into viable seeds. Where specimens have already turned to seed, we need an official but practicable system for disposal. Not many people that I speak to know about the dangers of GH - a public awareness campaign, particularly in schools, would help.	<ul style="list-style-type: none"> • Culling / removal • Education
Giant hogweed	<ul style="list-style-type: none"> • Invasive species 	On river banks and islands east of Hexham	<ul style="list-style-type: none"> • Main Tyne - Hexham to Wylam 	yes - destroy plants before they can seed and dig up seedlings. Does not spread as fast as Himalayan Balsam, but is more difficult to remove.	<ul style="list-style-type: none"> • Culling / removal
Gravel beds are silted over reducing the ability for various fish to spawn and pearl mussels to breed.	<ul style="list-style-type: none"> • Sediments - other • Pollution - agricultural run-off 	Everywhere due to run-off from agricultural land use.	<ul style="list-style-type: none"> • Throughout the catchment 	Create buffer strips, fence of waterways and plant trees, arable reversion on steep slopes, sediment traps and ponds where the sediment can gather, grip blocking on moorland.	<ul style="list-style-type: none"> • Conservation action
habitat issues, mainly over widening & salmonid juvenile habitat loss caused by coarse sediment from mined landscapes	<ul style="list-style-type: none"> • Fish populations • Sediments - other 	South Tyne & tributaries	<ul style="list-style-type: none"> • South Tyne 	Giving main river more room, disconnecting sediment supplies, restoring tree cover, restoring in stream woody debris	<ul style="list-style-type: none"> • Conservation action • Physical modification of river / banks / floodplain
Harnessing the energy created by flood water during periods of heavy rainfall	<ul style="list-style-type: none"> • Other 	All rivers, burns etc feeding into & including the river Tyne	<ul style="list-style-type: none"> • Throughout the catchment 	Miniature dams / hydro electric installations????	<ul style="list-style-type: none"> • Change / upgrade / build infrastructure

Issue	Issue category(ies)	Location	Broad location category(ies)	Solution	Solution category(ies)
Have just spent the evening helping to clear Himalayan Balsam from the riverbank at Hexham I know understand how invasive species are affecting the natural balance.	<ul style="list-style-type: none"> • Invasive species 	All along the riverbank at Tyne Green, Hexham.	<ul style="list-style-type: none"> • Main Tyne - Hexham to Wylam 	Unfortunately manual destruction seems the best way to tackle this plant thus organised volunteer sessions seems the practical way.	<ul style="list-style-type: none"> • Culling / removal
Heavy metal contamination of river sediments by abandoned metal mine wastes	<ul style="list-style-type: none"> • Sediments - contaminated • Pollution - minewaters 	Throughout the South Tyne and Tyne	<ul style="list-style-type: none"> • South Tyne • Main Tyne - Riversmeet to Wylam • Tidal reaches 	These are currently being studied by Phase II of the River Tyne Sediment Study - likely to be a combination of remedial actions including mine waters treatment, spoil heap consolidation, erosion control, sediment containment in the tidal waters	<ul style="list-style-type: none"> • Change / upgrade / build infrastructure • Remediation
Hexham Fish Pass	<ul style="list-style-type: none"> • In-river obstructions 	Hexham	<ul style="list-style-type: none"> • Main Tyne - Hexham to Wylam 	Complete the building of the pass as a priority	<ul style="list-style-type: none"> • Change / upgrade / build infrastructure
Hexham Hydro Turbine Project - possible effect on salmon migration.	<ul style="list-style-type: none"> • Hydropower • Proposed or current development 	River Tyne, Hexham	<ul style="list-style-type: none"> • Main Tyne - Hexham to Wylam 	Thorough consultation, research and design.	<ul style="list-style-type: none"> • Research and/or monitoring • Change / upgrade / build infrastructure
himalayan balsam	<ul style="list-style-type: none"> • Invasive species 	crow hall	<ul style="list-style-type: none"> • South Tyne 	uproot it	<ul style="list-style-type: none"> • Culling / removal
Himalayan Balsam	<ul style="list-style-type: none"> • Invasive species 	Throughout catchment but my knowledge of the problem is at Lipwood and Unthank on th South Tyne	<ul style="list-style-type: none"> • South Tyne 	arrange for clubs and other to pull and strim the balsam-perhaps the trust could help with obtaining grants to purchase suitable trimmers/hedgcutters	<ul style="list-style-type: none"> • Culling / removal • Community / voluntary action
himalayan balsam	<ul style="list-style-type: none"> • Invasive species 	in many places on the south Tyne, its tributaries and the main Tyne river	<ul style="list-style-type: none"> • South Tyne • Main Tyne - Hexham to Wylam 	Yes - Stop it spreading by pulling out plants in a position to spread their seed. I have cleared a large area in Wylam, but new seeds come down river with floods so clearly we also need to eliminate it in the higher reaches	<ul style="list-style-type: none"> • Culling / removal • Community / voluntary action

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Himalayan Balsam	<ul style="list-style-type: none"> Invasive species 	It's easier to say where it isn't!	<ul style="list-style-type: none"> Throughout the catchment 	As well as working downstream from its point of furthest spread, areas that are not subject to water-born seeds - and there are plenty of them - should be identified and targetted as high-priority areas. Working along river banks is not going to be time-efficient until much more has been cleared upstream.	<ul style="list-style-type: none"> Research and/or monitoring Culling / removal
Himalayan balsam	<ul style="list-style-type: none"> Invasive species 	Thornley woods, most open areas in Derwent valley	<ul style="list-style-type: none"> Derwent 	Spraying. More money to pay people to remove it	<ul style="list-style-type: none"> Culling / removal Financial incentives
Himalayan Balsam, Jap Knotweed	<ul style="list-style-type: none"> Invasive species 	River Derwent, Tyne, Team Valley	<ul style="list-style-type: none"> Derwent Main Tyne - Wylam to coast 	Targeted more finance control, Vol [Volunteer?] co-ordinated tasks	<ul style="list-style-type: none"> Community / voluntary action Culling / removal
Historic lead mining discharges into catchment; can be a problem in Northumberland in flood conditions	<ul style="list-style-type: none"> Sediments - contaminated Pollution - minewaters 	Mainly into the south Tyne arising on other local authority areas, then passes through Northumberland to lower Tyne where it becomes a problem.	<ul style="list-style-type: none"> South Tyne Main Tyne - Hexham to Wylam Main Tyne - Wylam to coast 	Research required on sustainable drainage to protect/create new flood meadows.	<ul style="list-style-type: none"> Research and/or monitoring
hostile fisherman and attitudes of landowners	<ul style="list-style-type: none"> Access - conflict 	below the weir in hexham and also at rivers meet at acomb	<ul style="list-style-type: none"> Main Tyne - Hexham to Wylam 	better understanding of rights of river users and more tolerance	<ul style="list-style-type: none"> Education
I do not know of any issues in this area.	<ul style="list-style-type: none"> No known issues 	Please see above.	<ul style="list-style-type: none"> Unclear/non-specific 	please see above	<ul style="list-style-type: none"> No solution suggested
Ignorance, Rudeness, lack of public knowledge about access to water	<ul style="list-style-type: none"> Access – other Access - conflict 	North tyne, south tyne	<ul style="list-style-type: none"> South Tyne North Tyne 	Be inline with Scottish access system, act responsible	<ul style="list-style-type: none"> Community / voluntary action Other
Illegal fishing	<ul style="list-style-type: none"> Fish poaching 	Throughout the Tyne system	<ul style="list-style-type: none"> Throughout the catchment 	Enforcement of fisheries legislation	<ul style="list-style-type: none"> Regulatory action
Impact of Kielder releases	<ul style="list-style-type: none"> River flows Water abstraction 	at Kielder	<ul style="list-style-type: none"> Kielder 	Funding, education, research	<ul style="list-style-type: none"> Financial incentives Research and/or monitoring Education

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Improved access to fishing stretches	<ul style="list-style-type: none"> • Access for fishing 	Many spots on the North Tyne above Bellingham.	<ul style="list-style-type: none"> • North Tyne 	Cooperation with riparian owners.	<ul style="list-style-type: none"> • Other
Inadequate maintenance of piped sections of streams where they pass under highways causing local flooding by natural diversion of water, carriageway erosion and opportunities for contamination from highway	<ul style="list-style-type: none"> • Flood risk • Pollution - other 	Bludder Burn at Springhouse Lane, Ebchester	<ul style="list-style-type: none"> • Derwent 	Create proper headwall at top of pipe run, increase pipe size (currently only 225 mm); and regularly maintain ditches and road gullies (DCC)	<ul style="list-style-type: none"> • Change / upgrade / build infrastructure • Change to working practice
increased siltation, alien plant species	<ul style="list-style-type: none"> • Sediments - other • Invasive species 	main river and S Tyne. Main river at Riding Mill certainly	<ul style="list-style-type: none"> • South Tyne • Main Tyne - Hexham to Wylam 	Develop control for alien plants, increase water hold up in upper reaches of catchment to reduce rate of run off.	<ul style="list-style-type: none"> • Conservation action
Increasing amounts of sewage going directly into the River Allen from private houses has reduced life in the river over the years.	<ul style="list-style-type: none"> • Pollution - sewerage 	Upriver from Philips Burn at Allendale for a couple of miles, and possibly all the way up to Allenheads	<ul style="list-style-type: none"> • South Tyne 	Monitoring of private cesspit outlets - are they emptied, and do they exist?	<ul style="list-style-type: none"> • Regulatory action • Research and/or monitoring
Indiscriminate removal of pike a natural predator in the river system.	<ul style="list-style-type: none"> • Fish populations 	On any salmon beat on the river Tyne.	<ul style="list-style-type: none"> • Throughout the catchment 	Educating the morons who think they know better than mother nature	<ul style="list-style-type: none"> • Education
INNS (especially Himalayan Balsam) impacting on the biodiversity and bank stability of the catchment	<ul style="list-style-type: none"> • Invasive species 	Large sections of the South Tyne around the Warden area and also the Rivers East and West Allen	<ul style="list-style-type: none"> • South Tyne 	Control of invasive species via manual or chemical control.	<ul style="list-style-type: none"> • Culling / removal
Invasive alien species - himalayan balsam, Japanese Knotweed and Giant Hogweed.	<ul style="list-style-type: none"> • Invasive species 	Widespread in the lower catchment but locally serious in the Ovingham area where I live.	<ul style="list-style-type: none"> • Main Tyne - Hexham to Wylam 	A better jointed up approach starting at the highest levels of occurrence in the catchment and working (perhaps for many years) down the catchment. Local volunteers such as Green Ovingham should continue to tackle the problem locally also.	<ul style="list-style-type: none"> • Community / voluntary action • Culling / removal
Invasive non native plants	<ul style="list-style-type: none"> • Invasive species 	Catchment wide although locally distributed.	<ul style="list-style-type: none"> • Throughout the catchment 	Systematic control from source backed up with local initiatives of direct control	<ul style="list-style-type: none"> • Community / voluntary action • Culling / removal

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invasive non native species	<ul style="list-style-type: none"> Invasive species 	Himalayan balsam is now very common along the banks of the river Tyne	<ul style="list-style-type: none"> Main Tyne - Hexham to Wylam 	The solution is that since it is formally recognised as a serious issue (ie WLCAAct listing) it should also have sufficient priority to attract the necessary funding and action to ensure effective control; listing isn't sufficient.	<ul style="list-style-type: none"> Change to working practice Financial incentives Culling / removal
Invasive non native species	<ul style="list-style-type: none"> Invasive species 	Throughout the Tyne Catchment	<ul style="list-style-type: none"> Throughout the catchment 	Comprehensive mapping, awareness raising and effective co-ordination and mobilisation of extensive volunteer network	<ul style="list-style-type: none"> Research and/or monitoring Education Community / voluntary action
Invasive plants - control and removal	<ul style="list-style-type: none"> Invasive species 	Japanese knotweed (200m2) giant hogweed and H Balsam	<ul style="list-style-type: none"> Unclear/non-specific 	Volunteer action to be encouraged	<ul style="list-style-type: none"> Community / voluntary action Culling / removal
invasive species	<ul style="list-style-type: none"> Invasive species 	throughout (a map of local sites where they occur can be supplied)	<ul style="list-style-type: none"> Throughout the catchment 	re: Himalayan balsam active removal from the beginning of the catchment. There's little point removing it from specific sites down stream as they will only get recolonised from the seed source further up stream	<ul style="list-style-type: none"> Community / voluntary action Culling / removal
Invasive species	<ul style="list-style-type: none"> Invasive species 	Everywhere, especially threatening Sites of Special Interest on the Allen and South Tyne.	<ul style="list-style-type: none"> South Tyne 	More river watch groups and a catchment wide plan to tackle the problem with volunteers from the source onwards. A point must be made to tackle areas immediately adjacent to the rivers first.	<ul style="list-style-type: none"> Community / voluntary action Culling / removal
Invasive species	<ul style="list-style-type: none"> Invasive species 	throughout but of particular concern is Himalayan Balsam in woodlands to the south	<ul style="list-style-type: none"> Unclear/non-specific 	Eradication	<ul style="list-style-type: none"> Culling / removal
invasive species	<ul style="list-style-type: none"> Invasive species 	throughout the catchment, plant and animal	<ul style="list-style-type: none"> Throughout the catchment 	systematic removal and prevention	<ul style="list-style-type: none"> Culling / removal
Invasive species - Himalayan Balsam	<ul style="list-style-type: none"> Invasive species 	River banks at Ovingham	<ul style="list-style-type: none"> Main Tyne - Hexham to Wylam 	Spraying.	<ul style="list-style-type: none"> Culling / removal

Issue	Issue category(ies)	Location	Broad location category(ies)	Solution	Solution category(ies)
Invasive species (both plant and animal) Balsam and Japanese Knotweed)	<ul style="list-style-type: none"> Invasive species 	Balsam - vast stretches of the Tyne and its tributaries. For example locally the section from Bywell to Prudhoe and beyond. Knotweed - less obvious but even more difficult to eradicate and is evident on the north bank of the Tyne from Bywell to Ovingham.	<ul style="list-style-type: none"> Main Tyne – Hexham to Wylam 	Regular balsam bashing is working well on stretches of tributaries and we are pleased with the success of our efforts along Stocksfield Burn. However on some stretches of the Tyne the problem seems so overwhelming that more drastic solutions would seem necessary.	<ul style="list-style-type: none"> Community / voluntary action Culling / removal
Invasive species preventing public access to river - Giant Hogweed/Japanese Knotweed/ Himalayan Balsam	<ul style="list-style-type: none"> Invasive species Access - general 	Large reaches of the River Tyne and tributaries	<ul style="list-style-type: none"> Throughout the catchment 	Advise landowners on how to control invasives on their land to stop seeds and pollen getting into the watercourse	<ul style="list-style-type: none"> Education
Invasive species.	<ul style="list-style-type: none"> Invasive species 	Watersmeet, Acomb	<ul style="list-style-type: none"> Main Tyne - Hexham to Wylam 	Not sure about invasives	<ul style="list-style-type: none"> No solution suggested
Invasive weeds	<ul style="list-style-type: none"> Invasive species 	Himalayan Balsam proliferations at 3 of our beats on the South & 1 on the North Tyne.	<ul style="list-style-type: none"> South Tyne North Tyne 	Cutting down in the Spring & pulling the remainder in August	<ul style="list-style-type: none"> Culling / removal
Irresponsible dog owners (leaving dog mess, bags etc)	<ul style="list-style-type: none"> Anti-social behaviour 	Lower Derwent walk	<ul style="list-style-type: none"> Derwent 	?	<ul style="list-style-type: none"> No solution suggested
I've never really thought about it, but I do wonder about the paper mill at Hexham, it often looks as if it is belching out pollutants.	<ul style="list-style-type: none"> Pollution - other 	As Above	<ul style="list-style-type: none"> Main Tyne - Hexham to Wylam 	Careful monitoring and measuring of outflow.	<ul style="list-style-type: none"> Regulatory action
Japanese knotweed	<ul style="list-style-type: none"> Invasive species 	In many places	<ul style="list-style-type: none"> Unclear/non-specific 	yes. Does not spread fast and by vegetative means only. Can be removed by cutting vegetation above ground on a fortnightly basis, but this can take as long as 10 years if there is a massive rootstock. I also understand that the stems of the plant can be injected with weed killer.	<ul style="list-style-type: none"> Culling / removal

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Japanese Knotweed	<ul style="list-style-type: none"> Invasive species 	Lots of patches, including some near the pillars of the bridge between Ovingham and Prudhoe.	<ul style="list-style-type: none"> Main Tyne - Hexham to Wylam 	Letting us know how seriously it is being taken and Identifying who is responsible for it where, then we will know who to contact when we see it.	<ul style="list-style-type: none"> Other Education
Kielder releases - not managed enough from an environmental perspective.	<ul style="list-style-type: none"> River flows Water abstraction 	North/Main Tyne	<ul style="list-style-type: none"> Main Tyne - Hexham to Wylam North Tyne Kielder 	Slower rate of release giving fish and insects time to adjust to temperature fall and rise.	<ul style="list-style-type: none"> Change to working practice
Kielder water quality - oxygen and temperature	<ul style="list-style-type: none"> River flows Water abstraction 	North Tyne (and other rivers where piped)	<ul style="list-style-type: none"> North Tyne Kielder 	draw off from nearer the surface and effective Kielder discharge water quality measures and monitoring particularly during low flows (summer levels)	<ul style="list-style-type: none"> Change to working practice Research and/or monitoring
lack of a coherent and adequately funded management plan run by an organisation that can pull all the strings together and take the "big picture" view	<ul style="list-style-type: none"> Other 	entire catchment	<ul style="list-style-type: none"> Throughout the catchment 	The current exercise will be a step in the right direction but needs follow through and funding	<ul style="list-style-type: none"> Other Financial incentives
Lack of a fish pass over a wier	<ul style="list-style-type: none"> In-river obstructions 	At Whitfield (Bearsbridge) on the West allen	<ul style="list-style-type: none"> South Tyne 	A fish pass	<ul style="list-style-type: none"> Change / upgrade / build infrastructure
lack of access	<ul style="list-style-type: none"> Access – general 	North Tyne	<ul style="list-style-type: none"> North Tyne 	More thought around opportunities for people to access the river in order to enjoy it.	<ul style="list-style-type: none"> Change to working practice
Lack of access for water users other than anglers	<ul style="list-style-type: none"> Access – conflict 	All Tyne river	<ul style="list-style-type: none"> Throughout the catchment 	Anglers to be made aware that kayak/canoeing does not harm fisheries	<ul style="list-style-type: none"> Education
Lack of canoeing access from Bywell to prudhoe at weekends even during times whae the river is open	<ul style="list-style-type: none"> Access for canoeing 	Bywell to Prudhoe	<ul style="list-style-type: none"> Main Tyne - Hexham to Wylam 	Change access agreement so that paddlers from tyneside can access this stretch at weekends	<ul style="list-style-type: none"> Other
lack of control of fish predators	<ul style="list-style-type: none"> Fish populations 	scotswood to wylam	<ul style="list-style-type: none"> Main Tyne - Wylam to coast 	control of cormorants	<ul style="list-style-type: none"> Culling / removal

Issue	Issue category(ies)	Location	Broad location category(ies)	Solution	Solution category(ies)
Lack of large woody debris (LWD) in streams	<ul style="list-style-type: none"> • Other 	Throughout the catchment	<ul style="list-style-type: none"> • Throughout the catchment 	Installation of trial - anchored LWD in streams to obtain ecological benefits with reduced flood risk, (engineering a lost facet of a natural system in a managed river system)	<ul style="list-style-type: none"> • Conservation action • Physical modification of river / banks / floodplain
lack of native brown trout	<ul style="list-style-type: none"> • Fish populations 	south tyne Alston to waters meet	<ul style="list-style-type: none"> • South Tyne 	lack of invertebrate, mine water competition with young of migratory fish	<ul style="list-style-type: none"> • Other
Lack of oxygen in low water in the summer.	<ul style="list-style-type: none"> • River flows • Water abstraction 	In the lower Tyne	<ul style="list-style-type: none"> • Main Tyne - Wylam to coast • Kielder 	Continuing to clean up the river, and continuing to manage Kielder releases to provide relief in the summer.	<ul style="list-style-type: none"> • Conservation action • Change to working practice
land access to North Tyne	<ul style="list-style-type: none"> • Access - general 	Chollerford	<ul style="list-style-type: none"> • North Tyne 	Obtain access behind petrol station/cafe at the campsite	<ul style="list-style-type: none"> • Other
land-sourced pollution from farms, mines, forests and roads	<ul style="list-style-type: none"> • Pollution - agricultural run-off • Pollution - minewaters • Pollution - other 	throughout the catchment	<ul style="list-style-type: none"> • Throughout the catchment 	carrot and stick - grant incentives and better policing	<ul style="list-style-type: none"> • Regulatory action • Financial incentives
legacy of mining pollution	<ul style="list-style-type: none"> • Sediments - contaminated • Pollution - minewaters 	all of South Tyne, and Tyne itself downstream of confluence, all way to sea	<ul style="list-style-type: none"> • South Tyne • Main Tyne - Watersmeet to Wylam • Tidal reaches 	Several things: addressing pollution sources in upper catchment; managing sediment in middle and lower reaches.	<ul style="list-style-type: none"> • Change to working practice • Conservation action
Lingering UDN every Autumn.	<ul style="list-style-type: none"> • Fish populations 	Catchment in general, specifically South Tyne feeder burns. e.g. Newbrough Burn.	<ul style="list-style-type: none"> • South Tyne 	Difficult, but abrasions caused by dams aggravate viral infection.	<ul style="list-style-type: none"> • No solution suggested
Litter	<ul style="list-style-type: none"> • Anti-social behaviour 	River Don	<ul style="list-style-type: none"> • Main Tyne - Wylam to coast 	Community work groups	<ul style="list-style-type: none"> • Community / voluntary action
Litter	<ul style="list-style-type: none"> • Anti-social behaviour 	Wherever people walk by the river.	<ul style="list-style-type: none"> • Throughout the catchment 	School visits to help children understand how litter can threaten wildlife as well as spoil the the appearance of our beautiful river area. Hopefully they will be more responsive than adults.	<ul style="list-style-type: none"> • Education
Litter	<ul style="list-style-type: none"> • Anti-social behaviour 	All over Gateshead - Derwent walk	<ul style="list-style-type: none"> • Derwent 	Empty bins	<ul style="list-style-type: none"> • Other
Litter	<ul style="list-style-type: none"> • Anti-social behaviour 	Derwent walk	<ul style="list-style-type: none"> • Derwent 	More bins	<ul style="list-style-type: none"> • Other

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Litter and dog fouling on the banks.	<ul style="list-style-type: none"> • Anti-social behaviour 	At Haltw where the population is large enough.histle and other areas	<ul style="list-style-type: none"> • South Tyne 	To educate dog owners about picking their dog's fouling up and to especially not bag it then leave it on trees or on the ground where it is protect with a jacket and will never break down naturally. The litter problem could be resolved by education and organised litter picks by volunteers	<ul style="list-style-type: none"> • Education • Community / voluntary action
Litter and dog poo!	<ul style="list-style-type: none"> • Anti-social behaviour 	Lower Derwent	<ul style="list-style-type: none"> • Derwent 		<ul style="list-style-type: none"> • No solution suggested
Litter caught in debris along the River Derwent below Rowlands Gill. Debris impedes flow.	<ul style="list-style-type: none"> • Anti-social behaviour • In-river debris 	[along the River Derwent below Rowlands Gill]	<ul style="list-style-type: none"> • Derwent 	Clear debris sooner, then litter will not be a problem so much.	<ul style="list-style-type: none"> • Change to working practice
Litter collection along the river and surrounding river banks.	<ul style="list-style-type: none"> • Anti-social behaviour 	Anywhere there is a settlement - the larger the settlement, the larger the problem. Also anywhere there is a popular open green space with access to the river.	<ul style="list-style-type: none"> • Throughout the catchment 	Public education - plan for the future, educate in primary schools now with a view to following through to secondary and older in terms of top up awareness raising. Teach kids when they are young and impressionable and rely on pester power to teach the adults. Manufacturing education - encourage the manufacture of degradable packaging - a lot of progress has been made in this area but there is still an abundance of plastic around which does not degrade. Approach it as a local initiative to generate innovative packaging solutions and then it can be rolled out from there.	<ul style="list-style-type: none"> • Education • Change to working practice
Litter especially coming down river.	<ul style="list-style-type: none"> • Anti-social behaviour 	on the river banks, roadsides	<ul style="list-style-type: none"> • Throughout the catchment 	education and raise awareness to manufacturers	<ul style="list-style-type: none"> • Education • Other
Litter left behind youths	<ul style="list-style-type: none"> • Anti-social behaviour 	Lower Derwent	<ul style="list-style-type: none"> • Derwent 		<ul style="list-style-type: none"> • No solution suggested
Litter maybe more bins	<ul style="list-style-type: none"> • Anti-social behaviour 	Around lake area and riverbank [Lower Derwent walk]	<ul style="list-style-type: none"> • Derwent 	More police	<ul style="list-style-type: none"> • Regulatory action

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Litter on banksides	• Anti-social behaviour	Priestlands Dene, Hexham	• Main Tyne - Hexham to Wylam	Regular litterpicks and setting an example	• Community / voluntary action
litter on beaches after holiday makers go home	• Anti-social behaviour	blyth	[outside Tyne catchment]	council to patrol and issue warnings	• Regulatory action
LITTER. flytipping,builders and farm rubbish blackplastic ect. roadside rubbish, cheap camping stuff and gardeners tips,	• Anti-social behaviour	washed down stream it's worse in floods tree are hung with plastic even tents and sleeping bags. Haydon Bridge and even up stream.there must be tons of the stuff wash in the shores at themouth of the river!!	• Main Tyne - Hexham to Wylam	It is against the law !! NOTHING hits home better than a well publicized prosecution or two. Get the press on side. From past experience August is often a time when their short of a good story.	• Regulatory action
Little bank work on parts of Lower and Upper Derwent	• In-river obstructions	Fallen trees major obstruction on Broken Oak area. Less so on Wiskey Jacks Bridge Linsford due to flood partly clearing	• Derwent	Tree specialist to look at removal and some opening out of canopy. Not removal but some sensitive opening up.	• Conservation action
Low Flow	• River flows • Water abstraction	North and South Tyne	• South Tyne • North Tyne • Kielder	re N. Tyne, better conduct of Kielder releases	• Change to working practice
Low oxygen concentration in the water during summer low water levels	• River flows • Water abstraction	particularly in the Riding Mill area	• Main Tyne - Hexham to Wylam • Kielder	more generous and regular Kielder releases	• Change to working practice
Low water conditions in the N Tyne catchment area, affecting runs of migratory fish.	• River flows • Water abstraction	Below Kielder Dam except when water is released	• North Tyne • Kielder	Increase the flow above the current compensation level.	• Change to working practice
Low water flow, particularly South Tyne.	• River flows	South Tyne catchment	• South Tyne • Uplands	Less abstraction. Improved agricultural and forestry practices in the headwaters to improve retention of water in soil after times of heavy rain.	• Change to working practice
Maintenance of capped slime dumps	• Other	At Nenthead, north of the village	• South Tyne	Pay attention to the maintenance of the capping on the dumps, and prevent access to the capped dumps	• Change / upgrade / build infrastructure • Other

Issue	Issue category(ies)	Location	Broad location category(ies)	Solution	Solution category(ies)
man-made barriers restricting access to smaller tributaries, and increasing predation in impoundments on larger parts of the river	<ul style="list-style-type: none"> In-river obstructions 	various locations throughout catchment	<ul style="list-style-type: none"> Throughout the catchment 	intensive survey of locations, removal of barriers where possible, easement of barriers in other situations	<ul style="list-style-type: none"> Research and/or monitoring Change / upgrade / build infrastructure Physical modification of river / banks / floodplain
Man-made structures preventing fish to migrate upstream	<ul style="list-style-type: none"> In-river obstructions 	Various places	<ul style="list-style-type: none"> Unclear/non-specific 	Create fish passing places or remove obsolete structures all together.	<ul style="list-style-type: none"> Change / upgrade / build infrastructure
Migratory salmonids - disruption of passage	<ul style="list-style-type: none"> In-river obstructions 	Potntial if inchannel works at Hexham proceed	<ul style="list-style-type: none"> Main Tyne - Hexham to Wylam 	Re-thinking the engineering aspects to the scheme	<ul style="list-style-type: none"> Change / upgrade / build infrastructure
Mine workings	<ul style="list-style-type: none"> Sediments - contaminated Pollution - minewaters 	R Nent	<ul style="list-style-type: none"> South Tyne 		<ul style="list-style-type: none"> No solution suggested
mineral sediments leading to pollution, lack of life in the river and high growth of green algae	<ul style="list-style-type: none"> Sediments - contaminated Pollution - minewaters 	All along the river Nent	<ul style="list-style-type: none"> South Tyne 	preventing run off from old mine workings	<ul style="list-style-type: none"> Change / upgrade / build infrastructure
Minewater discharges from the upper catchment rich in zinc in particular but also containing other metals, these metals then become attached to clay particles and travel down throughout the catchment	<ul style="list-style-type: none"> Sediments - contaminated Pollution - minewaters 	Dishcrages at the top of catchment (Nenthead etc) and sediments throughout the catchment even in floodplains	<ul style="list-style-type: none"> Throughout the catchment 	Remediation of minewater discharges and sediment management.	<ul style="list-style-type: none"> Change / upgrade / build infrastructure Remediation
Minewaters from abandoned mines from both coal and non coal sources.	<ul style="list-style-type: none"> Sediments - contaminated Pollution - minewaters 	North Pennines, other mining areas	<ul style="list-style-type: none"> Uplands 	treatment by passive or active means.	<ul style="list-style-type: none"> Remediation
More bins especially down by the river where people sit	<ul style="list-style-type: none"> Anti-social behaviour 	Lower Derwent	<ul style="list-style-type: none"> Derwent 	More bins, signs for individuals to take more responsibility	<ul style="list-style-type: none"> Other Education
More seats	<ul style="list-style-type: none"> Access – general 	Lower Derwent walk	<ul style="list-style-type: none"> Derwent 		<ul style="list-style-type: none"> No solution suggested
More spaces for picnics by river	<ul style="list-style-type: none"> Access for other activities 	Lower Derwent walk	<ul style="list-style-type: none"> Derwent 		<ul style="list-style-type: none"> No solution suggested

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Netting	• Fish populations	mouth and surrounding beaches	• Main Tyne - Wylam to coast	Close netting asap	• Change to legislation
Nitrogen and sugar beet flytipped on a layby on the b6277 at Whitesyke which is above a garrigill gill which runs in to the South Tyne at Garrigill. Also gravel/broken stone dumped too. And a rusty piece of machinery	• Anti-social behaviour	B6277 a layby at Whitesyke mine above garrigill burn stream which runs into Souht Tyne	• South Tyne	Remove the poluting materials which have been there two years.	• Remediation
No re-stocking of brown trout	• Fish populations	River Derwent	• Derwent	Stock fish small browns	• Restocking
not enough hedges.	• Other • Pollution - agricultural run-off	widespread	• Throughout the catchment	hedges are great; cheap, barriers to runoff, habitats and most farmers are possitive about them. no schemes to plant them now so hedges which tend to be all a similar age are becoming very gappy; lobby to create widespread hedging scheme.	• Conservation action • Other
Obsession with balsam	• Invasive species	riverbanks generally	• Throughout the catchment	leave it alone - it's attractive	• Other
obstruction to fish passage	• In-river obstructions	hexham	• Main Tyne - Hexham to Wylam		• No solution suggested
obstructions	• In-river obstructions • In-river debris	throughout the river system from majot (eg Hexham bridge) to minor (eg fallen trees in small streams)	• Throughout the catchment	fish passes, removal of wears, cutting into concrete aprons and clearing debris	• Change / upgrade / build infrastructure
Obstructions to migratory fish	• In-river obstructions	Lower ford above Ridley Mill in Stocksfield is a local example for us in Stocksfield	• Main Tyne – Hexham to Wylam	TRT has the technical ability to provide fish easements such as that now planned for our lower ford. Lack of funding is presumably a problem but since removing such obstructions would benefit the angling 'industry' which must be worth vast sums to the local economy it is sure worth DEFRA financing more schemes	• Change / upgrade / build infrastructure

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Obstructions to migratory fish movements	• In-river obstructions	Riding Mill, Hexham, Chollerford, Haydon Bridge	• Main Tyne - Hexham to Wylam	Improved fish passes, particularly at Hexham	• Change / upgrade / build infrastructure
Oil spills from scrap yards and harbours	• Pollution – other	tidal zone	• Main Tyne - Wylam to coast		• No solution suggested
other than migratory fish the south tyne is a dead river all other species are virtually extinct	• Fish populations	virtually the whole of the south tyne	• South Tyne	not easy to resolve as the causes are numerous i have fished this river for seventy years and could elaborate if requested	• Other
Over fishing of salmon and sea trout in estuaries.	• Fish populations	Tyne estuary.	• Main Tyne - Wylam to coast	Restrict the catches at sea.	• Change to legislation
Over-grazing leading to erosion, sedimentation and loss of riparian trees and cover.	• Sediments – other • Erosion - river banks	Widespread throughout the catchment.	• Throughout the catchment	Buffer fencing, at least initially to allow regenerations of herbaceous vegetation and shrub/tree understory. If not permanent fencing, long-term, greatly reduced stock density along watercourses.	• Conservation action • Change to working practice
People dying at riding Mill	• Access for canoeing	Riding mill weir	• Main Tyne - Hexham to Wylam	Replace weir with a friendly design	• Change / upgrade / build infrastructure
People moaning about us paddling	• Access - conflict	all of it	• Throughout the catchment	Campaign for Scottish style right to roam	• Change to legislation
people say that there used to be masses of trout in the Devil's Water, but not any more	• Fish populations	in the river	• Throughout the catchment	Finding and stopping agricultural practices that affect fish, and/or what is put in by householders	• Regulatory action • Research and/or monitoring

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Phosphate enrichment	<ul style="list-style-type: none"> • Pollution - agricultural run-off • Pollution - sewerage 	Sewage outlets (both treated and untreated in case of high levels of rainfall) + septic tanks. Also through run-off from farms.	<ul style="list-style-type: none"> • Unclear/non-specific 	Ban phosphate from detergents (like in other countries has been done), better sewage treatment, more sewage connections to farms. Better land management with buffer strips, tree planting, soil testing (to determine whether nutrients are necessary) and arable reversion near waterways.	<ul style="list-style-type: none"> • Change to legislation • Change / upgrade / build infrastructure • Change to working practice
Plastic bags, dog mess (at Rowlands Gill end of walk and near car parks), hanging bags in trees	<ul style="list-style-type: none"> • Anti-social behaviour 	River banks and trees [Lower Derwent walk]	<ul style="list-style-type: none"> • Derwent 	More dog mess bins	<ul style="list-style-type: none"> • Other
Plastic waste - from silage bags to shotgun shells, traffic cones to sleeping bags	<ul style="list-style-type: none"> • Anti-social behaviour 	Across the catchment	<ul style="list-style-type: none"> • Throughout the catchment 	If it was easy it would be done. Combination of activity, awareness raising, organised litter picks - not just anglers but local community involvement to raise awareness of issue and consequences - it turns into marine litter eventually	<ul style="list-style-type: none"> • Education • Community / voluntary action
poachers	<ul style="list-style-type: none"> • Fish poaching 	throughout the River Derwent	<ul style="list-style-type: none"> • Derwent 	More EA Enforcement Officers	<ul style="list-style-type: none"> • Regulatory action
Poaching	<ul style="list-style-type: none"> • Fish poaching 	Across most areas on the system. simply not enough people in Environment Agency to do this - if there was you would not need to have the Trust as you are doing what the Agency should be doing.	<ul style="list-style-type: none"> • Throughout the catchment 	Recruit a Tyne system anti poaching team paid for by a levy to all Tyne Anglers. This would be say £10/head for all anglers. Day anglers to pay the same - just add it to the rates on Fishpal. Clubs to pay £10/head for each member. Anglers who are members of multiple fishing clubs pay £10 for each club they are in. - monies to be added to club fees. It would be a visible, direct and active action that if seen would get the Trust an improved reputation.	<ul style="list-style-type: none"> • Regulatory action • Change to working practice
Poaching/anti-social behaviour - fires. Disruption of natural environment	<ul style="list-style-type: none"> • Anti-social behaviour • Fish poaching 	River Derwent	<ul style="list-style-type: none"> • Derwent 	Enforcement - prosecution of offenders - education of those involved	<ul style="list-style-type: none"> • Regulatory action • Education
Poaching/illegal fishing	<ul style="list-style-type: none"> • Fish poaching 	River Derwent (bottom 5 miles)	<ul style="list-style-type: none"> • Derwent 	Greater powers to club bailiffs	<ul style="list-style-type: none"> • Regulatory action

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Point and diffuse source metal pollution from abandoned metal mines	<ul style="list-style-type: none"> • Pollution - minewaters • Sediments - contaminated 	Extensive in the headwaters. I know specifically about the Nent (Nenthead, Nentsberry, Alston) and the West Allen (Coalcleugh and Carrshield).	<ul style="list-style-type: none"> • South Tyne 	Minewater remediation plans are being developed by the EA and Coal Authority for the West Allen. Further monitoring is being undertaken at Nenthead with a view to a future remediation scheme being implemented. Remediation measures proposed at Carrshield involve re-profiling a tailings dam and reconstructing a retaining wall to prevent contaminated sediment entering the river. Near future technology to treat minewaters is being developed by Newcastle University and will be trialled in the next few years .	<ul style="list-style-type: none"> • Remediation • Change / upgrade / build infrastructure • Research and/or monitoring
Point source pollution	<ul style="list-style-type: none"> • Pollution - sewerage • Pollution - minewaters • Pollution - other 	numerous sewage outfalls, mine run-off, landfill discharge and poorly-regulated businesses in industrial estates	<ul style="list-style-type: none"> • Unclear/non-specific 	Discussion with Northumbria Water about sewage discharge allowances - better regulation by the Environment Agency.	<ul style="list-style-type: none"> • Regulatory action • Change to working practice
Poisoning of the Grayling and Brown Trout stock in the River Derwent	<ul style="list-style-type: none"> • Pollution - other 	From Allensford downstream	<ul style="list-style-type: none"> • Derwent 	Stiffer penalties on the organisation responsible- Northumbria Water	<ul style="list-style-type: none"> • Regulatory action
Polluted run-off from old disused deep mine workings - is the treatment making matters better or worse? At Greenhead colossal amounts of caustic soda is being used every month to remove the iron from the Blenkinsopp pit effluent water. There's a massive build-up from the Byron pit in the latest tank of black sludge. Is all going to plan? Who is checking? Where does all the bad stuff go now?	<ul style="list-style-type: none"> • Pollution - minewaters 	This is currently being treated at a) Diamond Oak bridge in Featherstone, and b) in Greenhead.	<ul style="list-style-type: none"> • South Tyne 	Liaison with the Coal Board - and regular information for local people would be welcomed.	<ul style="list-style-type: none"> • Other • Education
Pollution	<ul style="list-style-type: none"> • Pollution - other 	Top of estuary	<ul style="list-style-type: none"> • Main Tyne - Wylam to coast 	?	<ul style="list-style-type: none"> • No solution suggested

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Pollution - diffuse and point source	<ul style="list-style-type: none"> • Pollution - other • Pollution - sewerage 	Of especial concern with regard to urban streams in Newcastle ie: Ouseburn and Wallsend Dene	<ul style="list-style-type: none"> • Main Tyne - Wylam to coast 	misconnections inappropriate regulation ie: consenting legacy	<ul style="list-style-type: none"> • Regulatory action
Pollution - industrial - litter	<ul style="list-style-type: none"> • Pollution - other • Anti-social behaviour 	River Derwent, Tyne, Team Valley	<ul style="list-style-type: none"> • Derwent • Main Tyne - Wylam to coast 	Targeted more finance control, Vol co-ordinated tasks	<ul style="list-style-type: none"> • Community / voluntary action • Other
Pollution - local knowledge that river is polluted and risk to dogs being walked	<ul style="list-style-type: none"> • Pollution - other 	Causey Arch/Tanfield Railway	<ul style="list-style-type: none"> • Derwent 	Unaware if the problem has been corrected - inform people through local media	<ul style="list-style-type: none"> • Education
Pollution - too many nitrates?? In the rivers. Dogs?? From farms/domestic/commercial. Oil seeping into the water system	<ul style="list-style-type: none"> • Pollution - other 		<ul style="list-style-type: none"> • Unclear/non-specific 	Looking at sources of pollution. Spreading info - as a dog owner I'm unsure of how dog faeces affects rivers	<ul style="list-style-type: none"> • Research and/or monitoring • Education
Pollution during low flows - lower river	<ul style="list-style-type: none"> • Pollution - other 	Lower river	<ul style="list-style-type: none"> • Main Tyne - Hexham to Wylam • Main Tyne - Wylam to coast 	Funding, education, research	<ul style="list-style-type: none"> • Financial incentives • Research and/or monitoring • Education
Pollution of the South Tyne from the paper mill between Fourstones and Warden	<ul style="list-style-type: none"> • Pollution - other 	between Fourstones and Warden	<ul style="list-style-type: none"> • South Tyne 	Ask them nicely? Assuming that will likely fail, is there a legal option?	<ul style="list-style-type: none"> • Change to working practice • Regulatory action
Poor water quality in upper tiday reaches	<ul style="list-style-type: none"> • Pollution - other 	In warm months when levels of dissolved oxygen fall	<ul style="list-style-type: none"> • Unclear/non-specific 	reduce pollution load	<ul style="list-style-type: none"> • Change to working practice • Conservation action
population enhancement of salmon stock from artificial hatchery, at best poor use of resources, at worst displacement of natural stock & genetic weakness in wild stocks	<ul style="list-style-type: none"> • Fish populations 	North Tyne	<ul style="list-style-type: none"> • North Tyne 	Genetic study of the impact of stocking. Assessment of wild recruitment in N. Tyne / stocked areas. Radio tagging of stocked fish.	<ul style="list-style-type: none"> • Research and/or monitoring
Possible flooding	<ul style="list-style-type: none"> • Flood risk 	Under the road bridges at Townfoot Haltwhistle	<ul style="list-style-type: none"> • South Tyne 	Regular monitoring of any blockage under the road bridges which the Haltwhistle Burn goes through	<ul style="list-style-type: none"> • Research and/or monitoring
Possible introduction of Hydro power stations on the river.	<ul style="list-style-type: none"> • Hydropower • Proposed or current development 	Hexham.	<ul style="list-style-type: none"> • Main Tyne - Hexham to Wylam 	Planning permission should be refused until more is known about how these will effect fish stocks and fish welfare.	<ul style="list-style-type: none"> • Other

Issue	Issue category(ies)	Location	Broad location category(ies)	Solution	Solution category(ies)
Potential pollution from opencast mining	<ul style="list-style-type: none"> • Pollution - other • Proposed or current development 	Stocksfield	<ul style="list-style-type: none"> • Main Tyne - Hexham to Wylam 		<ul style="list-style-type: none"> • No solution suggested
Powerboats and Personal Water Craft ignoring the speed limits	<ul style="list-style-type: none"> • Anti-social behaviour 	Scotswood Bridge to Newburn Slipway	<ul style="list-style-type: none"> • Main Tyne - Wylam to coast 	Better policing of the existing laws	<ul style="list-style-type: none"> • Regulatory action
predation by cormorants, goosanders and mergansers	<ul style="list-style-type: none"> • Fish populations 	various locations (ref cormorant watch survey via Angling Trust)	<ul style="list-style-type: none"> • Unclear/non-specific 	effective balanced management including culling where appropriate	<ul style="list-style-type: none"> • Culling / removal
Previous flooding in Blanchland on the river Derwent.	<ul style="list-style-type: none"> • Flood risk 	Where Shildon Burn runs into the Derwent at high river levels.	<ul style="list-style-type: none"> • Derwent 	Possible angling of the confluence of the stream with the river. At present it is at ninety degrees.	<ul style="list-style-type: none"> • Physical modification of river / banks / floodplain
Probably the worst point of pollution to the River Tyne at present is on the base of the slipway and the old outfall on the quay wall at Friars Goose Boat club. The outfall discharges noxious levels of Hydrogen sulphide and a diverse range of chemicals, including cyanide and arsenic from the abandoned chemical works.	<ul style="list-style-type: none"> • Pollution – other 	Friars Goose boat club	<ul style="list-style-type: none"> • Main Tyne - Wylam to coast 	Bring some pressure on the regulatory authorities as all requests to date have failed	<ul style="list-style-type: none"> • Regulatory action
Problems with motor cycle riders on bridle paths could be dangerous	<ul style="list-style-type: none"> • Anti-social behaviour 	Lonnens in Whickham, other side of River Derwent	<ul style="list-style-type: none"> • Derwent 	Should be designated areas for off road bikes	<ul style="list-style-type: none"> • Other
proposed archimedes screw hydro power generation	<ul style="list-style-type: none"> • Hydropower • Proposed or current development 	Hexham	<ul style="list-style-type: none"> • Main Tyne - Hexham to Wylam 	Abandon project at this site and extend existing hydro power facilities at Kielder reservoir which would result in a more efficient use of existing facilities and negate the requirement of funding for a new scheme at an untried location	<ul style="list-style-type: none"> • Change / upgrade / build infrastructure
Proposed hydro-electric scheme	<ul style="list-style-type: none"> • Hydropower • Proposed or current development 	Hexham	<ul style="list-style-type: none"> • Main Tyne - Hexham to Wylam 	Prevent installation	<ul style="list-style-type: none"> • Change / upgrade / build infrastructure

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Proposed UKC OPencast mine at Hoodsclouse and the subsequent opencasting of a further 4 sites approaching Prudhoe	<ul style="list-style-type: none"> Proposed or current development 	Hoodsclouse near Whittonstall	<ul style="list-style-type: none"> Main Tyne - Hexham to Wylam 	Urgent Objection to the UKC Hoodsclouse Opencast within 2 weeks by TVT to Planning, Northumberland CC. Morpeth.	<ul style="list-style-type: none"> Other
Quite clean and tidy. Not enough signposts to cabin in Thornley Woods	<ul style="list-style-type: none"> Other 	Lower Derwent walk	<ul style="list-style-type: none"> Derwent 	More signposts	<ul style="list-style-type: none"> Other
Rapid rise and fall of the rivers during wet periods creating sediment, washing out of redds, fish mortality etc	<ul style="list-style-type: none"> Land drainage Sediments - other 	Main.ly in the North and South Tynes and the upper reaches of the Main Tyne	<ul style="list-style-type: none"> South Tyne North Tyne Main Tyne - Hexham to Wylam 	More tree planting and creation of horizontal rather than vertical grips, and grip blocking.	<ul style="list-style-type: none"> Conservation action
Rapid spate	<ul style="list-style-type: none"> River flows 	South Tyne Catchment	<ul style="list-style-type: none"> South Tyne Uplands 	Reinstating the natural sponge effect of high moors and agricultural land	<ul style="list-style-type: none"> Conservation action
Raw sewerage	<ul style="list-style-type: none"> Pollution - sewerage 	Haydon Bridge down by the picnic area on the north side of the river.	<ul style="list-style-type: none"> South Tyne 	Establishing who is responsible and rectifying the situation.	<ul style="list-style-type: none"> Change / upgrade / build infrastructure
Reduced access to the South Tyne at Warden	<ul style="list-style-type: none"> Access - general 	Upstream of the bridge at Warden on the South side. historically this has been freely accessible, but recently "Warden angling" whoever they are are trying to restrict access.	<ul style="list-style-type: none"> North Tyne 	I'd like to be able to talk to them but I don't know who they are.	<ul style="list-style-type: none"> Other
Release of water from Kielder into the North Tyne	<ul style="list-style-type: none"> River flows Water abstraction 	North Tyne	<ul style="list-style-type: none"> North Tyne Kielder 	Pay more regard to the salmon and sea trout . Listen to what would help fishermen. Make the amount of water to be released information more available like it used to be	<ul style="list-style-type: none"> Education Change to working practice
Requests for greater access to and along the river for canoeists.	<ul style="list-style-type: none"> Access for canoeing 	All along the paddable sections.	<ul style="list-style-type: none"> Unclear/non-specific 	A opening up of the river to strategic access points. A recognition by all sides that there is an issue that can be managed by arrangement and not exclusion of one sector of society by another.	<ul style="list-style-type: none"> Other
Riding Mill fish pass damages migratory fish at certain heights when they run.	<ul style="list-style-type: none"> In-river obstructions 	Main Tyne	<ul style="list-style-type: none"> Main Tyne - Hexham to Wylam 	Needs investigating.	<ul style="list-style-type: none"> Research and/or monitoring

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Rights of access for boating throughout the fishing season	<ul style="list-style-type: none"> Access for other activities 	March to November	<ul style="list-style-type: none"> Unclear/non-specific 	Open access throughout the year for ALL who want to use the river for leisure - majority of boating throughout the summer months will occur in spate conditions anyway which aren't suitable for fishing.	<ul style="list-style-type: none"> Community / voluntary action
Riparian invasive species	<ul style="list-style-type: none"> Invasive species 	worst cases are well known, but throughout catchment	<ul style="list-style-type: none"> Throughout the catchment 	working with landowners to improve bankside buffers and comply with cross compliance.	<ul style="list-style-type: none"> Physical modification of river / banks / floodplain Regulatory action
River bank debris entering the watercourse	<ul style="list-style-type: none"> In-river debris 	Throughout the tidal reach of the river	<ul style="list-style-type: none"> Main Tyne - Wylam to coast 	Continuation of the Clean Tyne Project and increased education of farmers and riparian owners not to push brash and felled trees into the river.	<ul style="list-style-type: none"> Conservation action Education
River silt/farm run-off	<ul style="list-style-type: none"> Pollution - agricultural run-off Sediments - other 	From the high level westward	<ul style="list-style-type: none"> Unclear/non-specific 	Reclaim some land and build up river banks, eg. mud pumps like on the Mississippi	<ul style="list-style-type: none"> Physical modification of river / banks / floodplain
Rubbish	<ul style="list-style-type: none"> Anti-social behaviour 	Riverbank	<ul style="list-style-type: none"> Unclear/non-specific 		<ul style="list-style-type: none"> No solution suggested
Rubbish in water	<ul style="list-style-type: none"> Anti-social behaviour In-river debris 		<ul style="list-style-type: none"> Unclear/non-specific 	Rubbish management	<ul style="list-style-type: none"> Other
Rubbish such as tyres, scaffolding and wood on the mud flats of Dunston & Teams	<ul style="list-style-type: none"> In-river debris 	Between Dunston and Redheugh Bridges	<ul style="list-style-type: none"> Main Tyne - Wylam to coast 	Volunteer workforces with waders, handline and wagon to take rubbish away	<ul style="list-style-type: none"> Community / voluntary action
Rubbish thrown into water/on banks	<ul style="list-style-type: none"> Anti-social behaviour 	Newcastle Quayside	<ul style="list-style-type: none"> Main Tyne - Wylam to coast 		<ul style="list-style-type: none"> No solution suggested
Rubbish/pollution	<ul style="list-style-type: none"> Anti-social behaviour Pollution - other 	Beside/on footpaths and distributed along the river by the water (washed down)	<ul style="list-style-type: none"> Unclear/non-specific 	Fines, more bins	<ul style="list-style-type: none"> Regulatory action Other
run off	<ul style="list-style-type: none"> Pollution - agricultural run-off 	agricultural from rural areas urban contamination	<ul style="list-style-type: none"> Throughout the catchment 	encourage buffer strips and changes to agricultural practice in rural areas, interceptors in urban	<ul style="list-style-type: none"> Change to working practice Change / upgrade / build infrastructure

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Run off from agriculture	<ul style="list-style-type: none"> • Pollution - agricultural run-off 	Fields adjacent to rivers/streams. Badly designed silage/slurry tanks	<ul style="list-style-type: none"> • Unclear/non-specific 	Education and enforcement	<ul style="list-style-type: none"> • Education • Regulatory action
Run off from dairy farms and other large scale agricultural enterprises.	<ul style="list-style-type: none"> • Sediments - other • Pollution - agricultural run-off 	Again all over the catchment, think that the EA are very ineffectual in dealing with this problem.	<ul style="list-style-type: none"> • Throughout the catchment 	Stricter controls on farmers.	<ul style="list-style-type: none"> • Regulatory action
runoff flooding, i.e. flooding from firm surfaces, principally roads	<ul style="list-style-type: none"> • Sediments - other • Flood risk • Pollution - other 	Steeper slopes everywhere in the catchment	<ul style="list-style-type: none"> • Uplands 	mapping via stakeholder observation, followed by Highways actions which should include sediment management too	<ul style="list-style-type: none"> • Research and/or monitoring • Change / upgrade / build infrastructure
Sediment	<ul style="list-style-type: none"> • Sediments - other • Erosion - river banks 	In the South Tyne (we live near Bardon Mill), whenever there is a river rise above approximately two feet.	<ul style="list-style-type: none"> • South Tyne 	Better bank stabilisation, perhaps more willow planting, particularly on the outside of a bend, making horizontal grips rather than vertical and blocking grips.	<ul style="list-style-type: none"> • Physical modification of river / banks / floodplain • Conservation action
sewage works - outlet into the river. The outlet has a negative effect on water quality and people using the river often suffer, even using the best hygiene measures.	<ul style="list-style-type: none"> • Pollution - sewerage 	Specifically I am aware of the sewage works at Ebchester although the issues would be the same for any works in the catchment.	<ul style="list-style-type: none"> • Derwent 	Increase the water quality requirements for any outlets into the river. Again use planting to filter the waste products out of the water before it gets to the river rather than discharging directly into it.	<ul style="list-style-type: none"> • Change to working practice • Change to legislation • Change / upgrade / build infrastructure
sewage.pollution	<ul style="list-style-type: none"> • Pollution - sewerage 	sewage.outflow.from.newlands.into.derwent	<ul style="list-style-type: none"> • Derwent 	new.modern.sewage.system	<ul style="list-style-type: none"> • Change / upgrade / build infrastructure
Shortage of opportunities for young anglers; salmon fishing too expensive for young anglers	<ul style="list-style-type: none"> • Access for fishing 	Main Tyne	<ul style="list-style-type: none"> • Main Tyne - Hexham to Wylam 	Development of inclusive fishing schemes	<ul style="list-style-type: none"> • Other
Silt - contaminated and not contaminated	<ul style="list-style-type: none"> • Sediments - contaminated • Sediments - other 	South Tyne origins from old mine workings for contaminated Every tributary and main channel for "clean" Both cause issues in the estuary and along the course of the river	<ul style="list-style-type: none"> • South Tyne 	prevent new silt and contamination entering the river system - clean up the estuary	<ul style="list-style-type: none"> • Conservation action • Remediation
Siltation	<ul style="list-style-type: none"> • Sediments - other 	River Rede	<ul style="list-style-type: none"> • North Tyne 	Prevent encroachment into watercourse	<ul style="list-style-type: none"> • Physical modification of river / banks / floodplain

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silting up	<ul style="list-style-type: none"> • Sediments - other 	Between Newburn slipway and the end of the Newburn straight, near to where the Stella power station was located	<ul style="list-style-type: none"> • Main Tyne - Wylam to coast 	dredging	<ul style="list-style-type: none"> • Physical modification of river / banks / floodplain
Silting up; it may affect the river at times of flooding when there is insufficient cross-sectional area to allow adequate flow. It also affects watersports; mine is rowing.	<ul style="list-style-type: none"> • Sediments - other • Access for other activities 	Hexham and Newburn	<ul style="list-style-type: none"> • Main Tyne - Hexham to Wylam 	Controlled dredging of the riverbed to maintain the depth of the channel	<ul style="list-style-type: none"> • Physical modification of river / banks / floodplain
Slime dump erosion at Nenthead	<ul style="list-style-type: none"> • Sediments - contaminated • Pollution - minewaters 	South of Nenthead, on the east side of the river, adjacent to the Smallcleugh Mine SSSI	<ul style="list-style-type: none"> • South Tyne 	This is part of the Nenthead Mines SAM - will require work to prevent water entering the old settling ponds and also treatment of water leaving the ponds.	<ul style="list-style-type: none"> • Change / upgrade / build infrastructure • Remediation
Soil erosion in the uplands	<ul style="list-style-type: none"> • Soil erosion 	Commonplace where there is no Stewardship	<ul style="list-style-type: none"> • Throughout the catchment 	Paying farmers to control numbers of stock, where they graze and when	<ul style="list-style-type: none"> • Financial incentives • Change to working practice
Soil erosion in the uplands from bad stocking practices	<ul style="list-style-type: none"> • Soil erosion 	Upland farms not in Stewardship	<ul style="list-style-type: none"> • Uplands 	Education and financial incentives to stock more wisely	<ul style="list-style-type: none"> • Education • Change to working practice • Financial incentives
Soil run off from farming and forestry land	<ul style="list-style-type: none"> • Sediments - other • Pollution - agricultural run-off 	North west of Newbrough	<ul style="list-style-type: none"> • South Tyne 	Encourage farmers to plant and maintain thick hedges and wide field borders	<ul style="list-style-type: none"> • Change to working practice
Soil running off fields which are ploughed and seeded in the autumn during periods of heavy rain.	<ul style="list-style-type: none"> • Sediments - other 	All over the catchment where there is arable land	<ul style="list-style-type: none"> • Throughout the catchment 	Encourage farmers to plough differently i.e. across a field instead of up and down	<ul style="list-style-type: none"> • Change to working practice
Some pollution from treated sewage on the River Derwent. Untreated sewage in storm conditions on Black Burn (Sunniside to Watergate)	<ul style="list-style-type: none"> • Pollution - sewerage 	[on the River Derwent, Sunniside to Watergate]	<ul style="list-style-type: none"> • Derwent 	Treat sewage nearer to source.	<ul style="list-style-type: none"> • Change to working practice
Speeding bikers	<ul style="list-style-type: none"> • Anti-social behaviour 	Near car parks, areas near picnic benches and rivers [Lower Derwent walk]	<ul style="list-style-type: none"> • Derwent 	More wardens?	<ul style="list-style-type: none"> • Regulatory action
Stones on riverbed near bridge increasing	<ul style="list-style-type: none"> • Sediments - other 	Haydon Bridge	<ul style="list-style-type: none"> • South Tyne 		<ul style="list-style-type: none"> • No solution suggested

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Swalwell area does need cleaning of rubbish	• In-river debris	Bottom stretches need a revamp [Lower Derwent area]	• Derwent	Financial	• Financial incentives
the amount of native brown trout and grayling in the tyne and catchment rivers such as the derwent	• Fish populations	tyne and tributeries	• Throughout the catchment	milk fish and restock	• Restocking
The conflict between anglers and other river users (swimmers/conoeists for example)	• Access - conflict	The South Tyne at Warden	• South Tyne	I'd like to understand what the rules and options really really are. for example, I don't want to ruin things for fishermen, but I know there are seasons when fishing isn't allowed, and that there are times when there's no point fishing. Surely it should be no problem my swimming then. But what are these parameters?	• Education
The corkscrew that is being proposed for Hexham Fishpass	• Hydropower • Proposed or current development	Has not yet been built. Could have a drastic effect on migratory fish	• Main Tyne - Hexham to Wylam	Oppose it's construction unless watertight safeguards are in place.	• Other
The decline in the indigenous brown trout populations over the last 50years	• Fish populations	Tyne, Allens, Pont, Blyth, Wansbeck, etc etc	• Main Tyne - Hexham to Wylam • Main Tyne - Wylam to coast	Isolate the causes of the decline in the ephemeroptera fly populations, eg farming chemicals-insecticides and fertilisers.	• Change to working practice
The fish cannot get up over the weir in the village of Whitfield (on A686).	• In-river obstructions	Just beyond the Elks Head pub in the village of Whitfield (sometimes marked as Bear's Bridge)	• South Tyne	To put in a fish ladder	• Change / upgrade / build infrastructure
The increased risk of floods caused by climate change.	• Flood risk	An increasing number of low lying places	• Not clear	Homes, communities and employment centres should be protected by diverting flood waters onto agricultural land. Natural woodland should be increased. Drains should be removed from moorland	• Change / upgrade / build infrastructure • Conservation action
The increasing number of stones on river bed	• Sediments - other	My concerns are (a) is the river bed rising (b) will this increase the risk of flooding	• Unclear/non-specific	Remove the stones	• Physical modification of river / banks / floodplain

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the proposed Hexham hydro scheme	<ul style="list-style-type: none"> Hydropower Proposed or current development 	Hexham	<ul style="list-style-type: none"> Main Tyne - Hexham to Wylam 	Adequate research to ensure no damage is done to fish stocks, such a valuable resource to the Tyne system	<ul style="list-style-type: none"> Research and/or monitoring
The proposed water turbine to generate power at Hexham	<ul style="list-style-type: none"> Hydropower Proposed or current development 	Hexham	<ul style="list-style-type: none"> Main Tyne - Hexham to Wylam 	Prevent it being built	<ul style="list-style-type: none"> Change / upgrade / build infrastructure
The River Tyne fulfills a significant role as a leisure resource but also remains an important driver for the local and national economy. Sedimentation and associated dredging requirements, which are potentially complicated by materials in the sediment are a major issue in the continuing economic function of the river.	<ul style="list-style-type: none"> Sediments - contaminated Sediments - other 	Various locations. As a representative of North Tyneside Council I am most concerned about sites within North Tyneside that support local business activity.	<ul style="list-style-type: none"> Main Tyne - Wylam to coast 	A balanced focus on the importance of the river as an economic driver. I would be concerned at any other approach that tried to tip the balance away from the economic benefits and significant job creation that the river can generate	<ul style="list-style-type: none"> Other
The Tyne is not tourist/visitor friendly in that (a) there are almost no designated riverside walks (with some exceptions) and insufficient crossing places (a few extra FOOT bridges would be a great asset eg between Haydon Bridge and Warden	<ul style="list-style-type: none"> Access for walking 	As above - shortage of offered riverside experiences above Warden. No chance of manageable circular walks due to shortage of bridges	<ul style="list-style-type: none"> South Tyne 	Investment in river-orientated tourism	<ul style="list-style-type: none"> Other
There is none healthy river with lots of migratory fish.	<ul style="list-style-type: none"> No known issues 	tynemouth to source of rivers	<ul style="list-style-type: none"> Throughout the catchment 	leave the river as it is!!!	<ul style="list-style-type: none"> Other
Too many fish eating birds	<ul style="list-style-type: none"> Fish populations 	all over	<ul style="list-style-type: none"> Throughout the catchment 	culling	<ul style="list-style-type: none"> Conservation action

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Too many fishermen disturbing the wildlife. Too many fishermen thinking that access to the river by car is their right even when there are clear signs indicating otherwise. Too many fishermen who are insensitive to local people who live on the banks of the River Tyne.	<ul style="list-style-type: none"> • Anti-social behaviour • Access - conflict 	All over the Tyne	<ul style="list-style-type: none"> • Throughout the catchment 	Educate the fisherem that they do not own the river but share it with others	<ul style="list-style-type: none"> • Education
Too many stones on riverbed	<ul style="list-style-type: none"> • Sediments - other 	Haydon Bridge up and down river	<ul style="list-style-type: none"> • South Tyne 	Banks built up to avoid flooding	<ul style="list-style-type: none"> • Physical modification of river / banks / floodplain
Too much emphasis is placed on the "rights" of the salmon and trout fishermen to the exclusion of other parties who may wish to use the river as recreational resource, e.g. canoeing, walking the river bank, etc.	<ul style="list-style-type: none"> • Access - conflict 	Throughout it's length but particularly at the Rivers Meet downstream to Hexham, Corbridhe and Wylam.	<ul style="list-style-type: none"> • Main Tyne - Hexham to Wylam 	Tell the riparian rights owners and fishermen that other people have a right to enjoy the river too! The river could be seen asa green lung from Newcastle into the countryside and access could be vastly improved.	<ul style="list-style-type: none"> • Education • Community / voluntary action
tracks forming link from source of sediment to rivers and streams	<ul style="list-style-type: none"> • Sediments - other • Pollution - agricultural run-off 	mainly forestry but also on farmsteads	<ul style="list-style-type: none"> • Kielder 	divert runoff from tracks to suitable sites; wetland reedbeds maybe?	<ul style="list-style-type: none"> • Change to working practice
Trees blocking river	<ul style="list-style-type: none"> • In-river debris 	South Tyne Slaggyford Bridge	<ul style="list-style-type: none"> • South Tyne 	Remove trees before they move downstream and cause damage	<ul style="list-style-type: none"> • Conservation action
Trees snagging on bridges	<ul style="list-style-type: none"> • In-river debris • Flood risk 	most bridges following floods. This could weaken bridges and also add to flooding.	<ul style="list-style-type: none"> • Throughout the catchment 	remove large trees from bridges once a hazard has been identified within a set timeframe.	<ul style="list-style-type: none"> • Physical modification of river / banks / floodplain
Tyne Green is a popular place for boating, but the river bank is allowed to grow, so it is hard to see along the river, which makes boating unnecessarily unsafe, a particular concern as more disabled people are being encouraged to take to the water	<ul style="list-style-type: none"> • Access for other activities 	Tyne Green, Hexham	<ul style="list-style-type: none"> • Main Tyne - Hexham to Wylam 	Cut down the sycamore etc on the bank	<ul style="list-style-type: none"> • Conservation action

Issue	Issue category(ies)	Location	Broad location category(ies)	Solution	Solution category(ies)
Uncertainty about access to riverbanks and also for swimming/canoeing	<ul style="list-style-type: none"> • Access – general • Access for canoeing • Access for other activities 	Watersmeet, Acomb	<ul style="list-style-type: none"> • Main Tyne - Hexham to Wylam 	For access - negotiation with landowners to improve riverbank raies [?] and swimming spots. Also, better info about where to go - accurate info, good signage	<ul style="list-style-type: none"> • Other • Education
Undercutting of banks on opposite side of North Tyne where Tarsset Burn enters the river	<ul style="list-style-type: none"> • Erosion of river banks 	Tarsset/North Tyne	<ul style="list-style-type: none"> • North Tyne 	Repair gabions & excavate island forming which makes situation worse	<ul style="list-style-type: none"> • Change / upgrade / build infrastructure • Physical modification of river / banks / floodplain
Unnatural levels of bank erosion due to grazing animals having unhindered access to the river banks.	<ul style="list-style-type: none"> • Erosion of river banks 	This is a problem across large areas of the catchment and especially on the Rede Catchment.	<ul style="list-style-type: none"> • South Tyne 	Stock fencing where possible and where flooding is an issue stock reduction or temporary electric fencing.	<ul style="list-style-type: none"> • Conservation action • Change to working practice
Upland drainage speeding up the transfer of water from upland areas	<ul style="list-style-type: none"> • Land drainage 	all upland areas drained in the 1960-70s	<ul style="list-style-type: none"> • Uplands 	Upland management Grip blocking	<ul style="list-style-type: none"> • Conservation action
Urban Diffuse Pollution	<ul style="list-style-type: none"> • Pollution - other • Pollution - sewerage 	Road surface run-off, miss-connected households on urban reaches of the Tyne and tributaries	<ul style="list-style-type: none"> • Main Tyne - Wylam to coast 	Raising awareness campaigns and creation of sustainable drainage systems in urban areas	<ul style="list-style-type: none"> • Education • Change / upgrade / build infrastructure
Urban run off	<ul style="list-style-type: none"> • Pollution - other 	In residential and commercial areas throughout the catchment.	<ul style="list-style-type: none"> • Throughout the catchment 	Encourage use of public transport and local facilities that can be accessed on foot rather than relying on private vehicles. Discourage installation of hard surfacing to private gardens. Introduce more trees and green spaces to urban areas. Introduce more landscaping to streets, access roads, roof gardens and vertical greening to minimise run off and concentration of pollutants.	<ul style="list-style-type: none"> • Other • Change / upgrade / build infrastructure
Use of tyres on foreshore for collection of crabs - tyres get into navigable channels and berths and cause damage to vessels propellers and bow thrusters. Damages dredge pumps of trailer suction dredgers and creates a major cost to the port for disposal.	<ul style="list-style-type: none"> • In-river debris 	Lower reaches of river on intertidal areas.	<ul style="list-style-type: none"> • Main Tyne - Wylam to coast 	Education of public and policing by appropriate authorities.	<ul style="list-style-type: none"> • Education • Regulatory action

Issue	Issue category(ies)	Location	Broad location category(ies)	Solution	Solution category(ies)
Users of powered craft not abiding to speed limits	<ul style="list-style-type: none"> • Anti-social behaviour 	Wylam to Scotswood	<ul style="list-style-type: none"> • Main Tyne - Wylam to coast 	Speed limit signs on banks plus signs requesting Please slow down for rowers, kayaks etc	<ul style="list-style-type: none"> • Education
Vandalism	<ul style="list-style-type: none"> • Anti-social behaviour 	Acomb Conservation Area, people cutting down trees etc	<ul style="list-style-type: none"> • North Tyne 	Security patrols	<ul style="list-style-type: none"> • Regulatory action
vandalism and trespassing	<ul style="list-style-type: none"> • Anti-social behaviour 	from rivers meet to start of tyne green	<ul style="list-style-type: none"> • Main Tyne - Hexham to Wylam 	signage of public footpath over private land and policing in evenings on friday,saturday evenings particulatly when weather is hot	<ul style="list-style-type: none"> • Regulatory action • Education
Visitors need more access to fishing. Tourist board needs to advertise more	<ul style="list-style-type: none"> • Access for fishing 	We have very good brown trout fishing that should be made more public also to drive tourism in this area	<ul style="list-style-type: none"> • Unclear/non-specific 	A greater collective drive ie. hotel, pub, tourist board, touris in general as well as TRT, Environment Agency, club and river owners. Business	<ul style="list-style-type: none"> • Other
Visitors who harm the environment	<ul style="list-style-type: none"> • Anti-social behaviour 	Signage	<ul style="list-style-type: none"> • Unclear/non-specific 		<ul style="list-style-type: none"> • No solution suggested
Waste thrown or blown into the river.	<ul style="list-style-type: none"> • Anti-social behaviour • In-river debris 	Everywhere from feeding bags from farms to tins along right of ways.	<ul style="list-style-type: none"> • Throughout the catchment 	People should be better educated that plastic can suffocate wildfowl and fish. Farmers should be fined when they leave feeding bags on their land to be blown away and there should be an annual rubbish collection day to get rid of all the plastic in bushes and cans littering the river banks.	<ul style="list-style-type: none"> • Education • Regulatory action • Community / voluntary action
Water abstraction from North Tyne and low release levels from Kielder	<ul style="list-style-type: none"> • River flows • Water abstraction 	Kielder and Barrasford	<ul style="list-style-type: none"> • Kielder 	More flexible release arrangements from Kielder, and only abstract at Barrasford when river level is above a certain level.	<ul style="list-style-type: none"> • Change to working practice
Water extraction	<ul style="list-style-type: none"> • Water abstraction 		<ul style="list-style-type: none"> • Unclear/non-specific 		<ul style="list-style-type: none"> • No solution suggested
water levels	<ul style="list-style-type: none"> • River flows • Water abstraction 	throughout the river	<ul style="list-style-type: none"> • Throughout the catchment • Kielder 	looking out for areas/shallow pools where fish may be trapped when water levels drop (Corbridge Bridge) and excavating/clearing a natural exit channel. Maintaining river banks. Controlling river flow from Keilder.	<ul style="list-style-type: none"> • Conservation action • Change to working practice • Physical modification of river / banks / floodplain

Issue	Issue category(ies)	Location	Broad location category(ies)	Solution	Solution category(ies)
Water quality	<ul style="list-style-type: none"> • Sediments - other • Pollution - agricultural run-off 	Throughout catchment area	<ul style="list-style-type: none"> • Throughout the catchment 	Prevention of excessive agricultural run-off to reduce siltation and excessive nutrients	<ul style="list-style-type: none"> • Change to working practice
Water release and consequent water levels from Kielder dam.	<ul style="list-style-type: none"> • River flows • Water abstraction 	Falstone village and downstream	<ul style="list-style-type: none"> • North Tyne • Kielder 	Guarenteed water release during certain weeks of the year	<ul style="list-style-type: none"> • Change to working practice
water releases into the North Tyne	<ul style="list-style-type: none"> • River flows • Water abstraction 	All down the North Tyne	<ul style="list-style-type: none"> • North Tyne • Kielder 	Sympathetic releases to encourage the run of migratory fish	<ul style="list-style-type: none"> • Change to working practice
water shortage	<ul style="list-style-type: none"> • Water abstraction • River flows 	from Newburn to Wylam in many places	<ul style="list-style-type: none"> • Main Tyne - Wylam to coast 	water companies taking less water out	<ul style="list-style-type: none"> • Change to working practice
Weir at Riding Mill is an obstruction to fish passage.	<ul style="list-style-type: none"> • In-river obstructions 	March Burn, Riding Mill	<ul style="list-style-type: none"> • Main Tyne - Hexham to Wylam 	Repair or modification	<ul style="list-style-type: none"> • Change / upgrade / build infrastructure
Weir at Whitfield has a blocked fish pass so migratory fish cannot reach the head waters	<ul style="list-style-type: none"> • In-river obstructions 	The dam Whitfield 100 meters above the Elks Head public house	<ul style="list-style-type: none"> • South Tyne 	Re open the pass	<ul style="list-style-type: none"> • Physical modification of river / banks / floodplain
Work is not done to stop erosion of land, nor keep the river from altering its course.	<ul style="list-style-type: none"> • Erosion of river banks 	Between The Eals and Featherstone acres of land has been eroded.	<ul style="list-style-type: none"> • South Tyne 	Removal of banks of gravel and sand deposited after flooding, and the river kept in its original bed.	<ul style="list-style-type: none"> • Physical modification of river / banks / floodplain
WWW.GEOGRAPH.ORG.UK - NY7546. Owing to illness, it is about one year since I passed this way but, at that time, the Right of Way had fallen into the River Nent.	<ul style="list-style-type: none"> • Access for walking 	WWW.GEOGRAPH.ORG.UK - NY7546.	<ul style="list-style-type: none"> • South Tyne 	We could perhaps try chasing up the County Rights-of-Way Officer for the appropriate repairs to be made.	<ul style="list-style-type: none"> • Other
Young campers leaving rubbish, burnt timber	<ul style="list-style-type: none"> • Anti-social behaviour 	Rubbish [Lower Derwent walk]	<ul style="list-style-type: none"> • Derwent 	More rangers	<ul style="list-style-type: none"> • Regulatory action
Youths leaving rubbish, setting fire to trees, destroying fencing	<ul style="list-style-type: none"> • Anti-social behaviour 	Lower Derwent walk	<ul style="list-style-type: none"> • Derwent 	More bins with signage to use them	<ul style="list-style-type: none"> • Other • Education

Appendix 5 Flooding details

Below is the detail given by the respondents who answered Yes to the question “Are you affected by flooding?”

- Flooding causes debris down stream in large quantities. This has a number of impacts including very large timbers floating in the main river channel and large rafts of smaller debris collecting and structures and also in the main river channel.
- The river bank is being heavily eroded in times of spate and the river is now in danger of flooding out onto the track leading to the house.
- I live at Haydon Bridge and my garden is occasionally flooded by the South Tyne
- Natural however effects fishing when river is in flood. Seems to be more extreme "flooding" due to land not holding the water in the higher reaches and drainage schemes
- It is more the potential for flooding to get worse; at present it affects me rarely but if the river silts up any more, Tyne Green will flood as will the Tyne around Newburn
- Road networks are often closed due to flooding. Insurance costs and increased taxation to repair private and public property
- After most heavy rains there is a lake at the bottom of the village across the Military Road in Greenhead right outside the village hall. This can happen during the course of a single coffee morning or whist drive, so people can't leave dry shod! It is often over a foot deep - the village hall has had to install a flood gate which cannot be opened until the water has gone down - or the hall would be flooded! NB many of the drains in the road down the Glenwhelt bank are overgrown, often with many inches of earth supported a vigorous growth of grasses, dockens, etc. Morpeth is too far away to cope with this necessary work - they need to pay the parish council to keep the drains clear in advance of rain. But as water now pours down two roads in to the village bottom, it's not just a matter of the odd drain. It happens several times a year. The river behaves very well - it will only flood the village if it rises above the Vicarage bridge - and in 40 years I have never seen it get that high, though it sometimes only needs another inch!
- River Dewent at Ebchester River Tyne at Tyne Green
- Within Sotuh Tyneside surface water flooding can occur due to blocked highway gullies during periods of heavy rainfall. Our gully cleansing crew are efficient in dealing with these problems when identified.
- Normal spate river The Allen
- There are a number of roads that flood because of the poor drainage systems. This causes problems for drivers in the area. There are also issues around water run off in heavy wet weather that can cause flooding.
- We were flooded in September 2008 at the same time as Morpeth.
- The rain water drains are not cleared correctly or often enough. This causes massive puddles on our roads. This is especially lethal in the winter months with frost and freezing conditions exacerbating the problem by attacking the infrastructure and causing potholes in the road.
- Some roads in Forest Hall flood, causing traffic problems, most notably in the area of Station Road j/w Station Road North near Forest Hall shops.
- The footpath through the park south of Featherstone Castle is being eroded

- Erosion on some of our beats on the South Tyne
- A very big flood can affect some fields and gardens
- Our factory is located in Tyne Mills Hexham
- run off from road across field into garden washing away topsoil and gravel. Doesn't get into house/garage, quite! Nearly did once.
- Flooding of roads in the Ovingham/Wylam area
- Key sites along the river frontage are within the flood risk areas, with potential adverse effect upon development proposals.
- As stated previously flooding of meadows/cattle grazing areas etc. with contamination from historic mine workings. Also flooding can affect habitation adjacent to the river.
- it causes the drains to overflow pushing some less pleasant items into the river
- Blocked gulleys are the biggest problem. Have not been flooded yet, but always a possibility
- Occasionally stops us using one of the roads out of the village, and even closed the bridge once.
- Water run off from neighbouring fields, compound by badly maintained drainage system to the road network.
- Victorian drainage in roads leading to pollution in the river.
- Flash flooding runs off the fell and washes through our yard and takes stones etc with it. It has caused a wall to fall over in the village which has now been repaired but when we have flash or severe storm the drains cannot cope and have washed part of our track away on many occasions. It also affects the footpath to Garrigill village
- Flood event January 2005. Whilst it overtopped the flood-defence embankment (which was subsequently breached) the height of the flood immediately prior to the breach was sufficient to enter low-lying properties which were previously 'safe' since 1900 / 1950. The online flood map published by the Environment Agency doesn't take into consideration the embankment on the south side of the river:- <http://i24.photobucket.com/albums/c19/GroupCaptain/Corbridgeflooding.jpg> That the properties on the north bank that were flooded were previously 'safe' before the 2005 event suggests that something has increased the flood-risk at Corbridge. The build-up of gravel in the middle of the river upstream of the bridge reduces the section of river available for flow. Removal of the gravel deposits (which have accumulated over the last decades) would reduce the flood-risk of those properties that were flooded in January 2005. It was common practice until about 1950 that local builders would remove the gravel deposits for use in building projects. Since this practice was discontinued, islands have appeared with subsequent vegetation binding the gravel. The islands restrict the capacity and impede the flow of the river resulting in slowing of the stream and further deposition of gravels. This is a self-generating situation that worsens with each flood event. Removal of the islands would enable greater capacity through the bridge and avoid 'backing-up' of the flood-water. This backing-up must put additional stress onto Corbridge bridge (as well as threatening the low-lying properties). Please note these properties were NOT built in the flood plain. Historically their locations have never been liable to flooding (prior to the construction of the embankment on the south side), and even since the embankment they weren't liable to flooding before the gravel islands accrued. The embankment has been strengthened (and raised slightly) meaning that flood events approaching that of January 2005 WILL result in flooding of these properties. Removing the gravel islands could save these properties from flooding . . .
- Areas in my locality that flood extensively and affect me the most frequently include Lanchester and the access road from Lanchester into Durham.

- Our fields get flooded
- Flooding has occurred only once in 30 years in the proximity of our house - flood water from a nearby burn entered our lower garden & also flooded nearby houses and the main road outside our house. Fields to the south west of the Alston Arches in Haltwhistle were also flooded by recent heavy rain, this has occurred several times in recent years.
- From Tyne tributaries--Black Burn and Hartley Burn
- the environment agency has told us the flood defences will not be repaired if they breach again (2005) .We will be exposed then to regular flooding and possible loss of life.
- During summer rain storms our street ([name removed], Wylam) turns into a river. Water is diverted from other streets down our street. The manholes are too few and inadequately maintained. Summer rain storms are getting heavier each year. Houses have not yet been flooded but it is only a matter of time
- Roads into Hexham, coming off the A69 and around by the railway station. in heavy rain the water accumulates very quickly
- mainly flash flooding on roads
- See previous response. At times of high rainfall piped stream water rises from road gullies and flows along Springhouse Lane and flows into some neighbouring properties or adds to 'river' conditions on Ebchester Hill and Front Street, Ebchester. Additionally, stream water which cannot enter piped section diverts southward along lane causing obstruction and erosion
- It makes the fishing better when river falls back to normal
- South side - flood bank integrity and farmfields run-off; north side - 5 houses at risk in 08/01/05 flood level; CSO Wellbank Green
- When butterfly bridge washed away, but been replaced after campaign
- Not at home but there is a perennial road issue on A6079 at GR929654 when the Red & Birky Burn are in spate
- Lanesley Pastures
- Occasionally (no damage) our park floods, Tanner's Yard, Gilesgate, Hexham
- Only when can't fish due to too much water! You got access the the man (or woman above)