



River Basin Management Plans 2021- Challenges and Choices consultation summary report

Version 1

25 January 2021

We are the Environment Agency. We protect and improve the environment.

We help people and wildlife adapt to climate change and reduce its impacts, including flooding, drought, sea level rise and coastal erosion.

We improve the quality of our water, land and air by tackling pollution. We work with businesses to help them comply with environmental regulations. A healthy and diverse environment enhances people's lives and contributes to economic growth.

We cannot do this alone. We work as part of the Defra group (Department for Environment, Food and Rural Affairs), with the rest of government, local councils, businesses, civil society groups and local communities to create a better place for people and wildlife.

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Environment Agency
Horizon House, Deanery Road,
Bristol BS1 5AH

Email: enquiries@environment-agency.gov.uk
www.gov.uk/environment-agency

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Foreword

We need to protect and improve England's waters, ensuring that they meet the needs of people and nature, and provide clean and plentiful water, now and in the future.

Water keeps us alive, underpins our economy and sustains wildlife.

Our rivers, lakes, canals, coasts and groundwater, and the benefits they provide to our health and wellbeing and the economy of our country, are worth billions of pounds.

These benefits are threatened by many different pressures, including pollution, land management and development. Currently only 16% of our water bodies are in their natural state. The climate crisis and a growing population are adding to these pressures. Without concerted action they will lead to irreparable harm to the environment, ourselves, and future generations.

We asked for your views on the challenges England's waters face and the choices and changes we all need to make to ensure clean and plentiful water for all.

'Challenges and Choices' was the second of three consultations that will help shape England's future water management. It covered all the river basin districts that are entirely in England, and the Severn and Northumbria river basin districts which lie partly in Wales and Scotland, respectively.

The responses to the Challenges and Choices consultation are summarised in this document and will be used to inform and update the existing river basin management plans.

The river basin management plans describe what we all need to do to protect and improve the water environment. These plans are integral to achieving the government's 25 Year Environment Plan target for clean and plentiful water, of improving at least three quarters of our waters to be close to their natural state.

Key issues include adapting to, and mitigating the impact of, population growth and climate change, securing future funding in the environment, addressing storm water overflows, tackling over-abstraction, and protecting chalk streams.

In order to achieve the ambition of clean and plentiful water, we need the support of all those with responsibility for, or interest in, the water environment.

Thank you to everyone who has taken part in the consultation.

David Dangerfield
Director Water, Land & Biodiversity
Environment Agency

Executive summary

We published the current river basin management plans (RBMP) in February 2016. We are now working with partners to review and update these plans. As part of this process, in October 2019 we launched the second of 3 statutory consultations, seeking views on the challenges waters face and the choices we all need to make to improve and protect this precious resource.

This document summarises your responses to this consultation, termed 'Challenges and Choices'. Your responses are shaping our future approach to managing the water environment and are being used to update the existing river basin management plans. These plans will support the ambition of creating climate resilient communities and landscapes, and enabling clean and plentiful water for all.

The Challenges and Choices consultation was launched on 24 October 2019 with the aim of completing after the 6 month statutory period on 24 April 2020. However, as a result of the coronavirus outbreak and following feedback from partners, the deadline for consultation submissions was extended by 5 months to 24 September 2020.

As an online consultation we hoped that it would be accessible to the whole public. We are very encouraged by the level of involvement and responses from organisations and individuals from all ages and sectors of society. We value all comments and feedback and are using it to inform how we improve, protect and manage the water environment.

In this document we summarise information on the number of responses, types of organisations responding, how people responded and key messages for each question. This document is a 'you said' summary of responses and does not state resultant actions that will be taken forward. These actions will be set out in the updated draft river basin management plans which will also be consulted on.

We are working closely with Natural Resources Wales (NRW) and the Scottish Environment Protection Agency (SEPA) on a joint approach to updating the draft plans for the Dee and Solway Tweed, respectively. Consultation on both these draft plans began in December 2020. You can find out more about the river basin planning process in Wales by visiting the [NRW website](#). You can find out more about the river basin planning process in Scotland by visiting the [SEPA website](#).

The Challenge and Choices consultation documents were published online and presented each key environmental challenge as a specific page. The challenges included:

- climate and biodiversity crisis
- changes to water levels and flows
- chemicals in the water environment
- invasive non-native species
- physical modifications
- plastics pollution
- pollution from abandoned mines
- pollution from agriculture and rural areas
- pollution from towns, cities and transport
- pollution from water industry waste water

Each challenge page presented a brief overview with infographics and links to more detailed information. They contained information and questions on who pays, catchment partnership working and the river basin planning process. Further information is available in the [challenges and choices links document](#).

We received a total of 606 responses, mostly submitted via the web based consultation tool. Responses came from a range of groups and individuals, including the water industry, local authorities, farming industry, navigation authorities, catchment partnerships, local wildlife groups, and regional flood and coastal committees. A full list of organisations who responded is listed in Appendix 6.3.

Consultation responses highlighted a number key issues for the Environment Agency, government and Defra to focus on. These include adapting and mitigating to climate change, improving habitats, securing future funding in the environment, waste water and storm water overflows, the future of agriculture, over abstraction and chalk streams. Some examples of the topics that consultees made reference to include the following (note, these are not exclusive or listed in any particular order):

- Nature based solutions that can deliver multiple benefits, including:
 - flood risk reduction through natural flood management
 - enhancements for habitats and biodiversity through actions such as rewilding
- The need for the Environment Agency to address storm water overflows, particularly to:
 - improve their operation and reduce their frequency of use
 - penalise water companies when they are used too frequently
- The need to tackle over abstraction, particularly the:
 - importance of sustainable abstraction on chalk
 - need to maintain a minimum flow target
 - need to value water appropriately and encourage water meter usage
- Importance of protecting chalk streams:
 - from over abstraction, pollution and physical modification
 - to have additional protections for these globally unique water environments
- The importance of catchment planning and partnerships:
 - to deliver education and citizen campaigns
 - to be sufficiently funded for the long term
- The need for the Environment Agency to enforce existing regulations more.
- The importance of the proposed Environmental Land Management (ELM) schemes to the future of agriculture, including:
 - getting the new agricultural policy right is crucial to achieving a shift to more sustainable land use and improve soil health
 - supporting their implementation with greater enforcement of existing regulations
- Chemicals and plastics in the environment, including the:
 - need to have campaigns to educate the public in sustainable usage

- government to use of bans and restrictions, where appropriate
- Securing future funding for the environment, including:
 - central government to use additional taxation to support environmental improvements
 - securing additional funding to support enforcement of existing regulations (for example, farm inspections)

We are continuing to analyse responses to identify actions to take forward in the updated river basin management plans. There will be an opportunity for stakeholders to comment on these during the draft river basin management consultation, which is the next step in the planning cycle. After this, plans will be finalised and submitted to the Secretary of State for approval.

We will inform you as soon as we have more certainty about the future timetable for updating the plans.

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1. Introduction

We published the [current river basin management plans](#) in February 2016 and we are now going through the statutory process¹ of reviewing and updating these plans, including 3 public consultations. The original deadlines, set out before the coronavirus outbreak, for launching these consultations were:

- 22 December 2018 for the 'Working Together' consultation
- 22 December 2019 for the 'Challenges and Choices' consultation
- 22 December 2020 for the draft updated river basin management plans consultation

This document summarises responses to the Challenges and Choices consultation. It was launched on 24 October 2019 with the aim of completing after the statutory 6 month period on 24 April 2020. However, as a result of the coronavirus outbreak and following feedback from partners, the deadline for submissions was extended by 5 months to 24 September 2020.

We were planning to start consulting on the draft update to the plans in December 2020, but this was not possible. We aim to minimise further delay to updating the river basin management plans and we will inform you as soon as we have more certainty about the future timetable for updating the plans.

We have developed a joint approach with both Natural Resources Wales (NRW) and the Scottish Environment Protection Agency (SEPA) to update the draft cross border plans for the Dee and Solway Tweed, respectively. Consultation on both these draft plans began in December 2020. Consultation on the draft update to the whole of the Severn river basin management plan will follow the English timetable.

Although updates to the plans are delayed, we continue our planning work to protect and improve the environment. For example, this summer we asked catchment partnerships to contribute to setting out local priorities for inclusion in the draft river basin management plans; and in September we published the 2019 classification status for England's waters, serving as a stark reminder of the need for more action and investment to manage the increasing pressure on water and to restore nature.

1.1. Working Together consultation

In 2018, we ran the 'Working Together' consultation which set out the steps and measures to take, the proposed timetable and ways to involve everyone updating the river basin management plans. The consultation ran for 6 months between 22 June 2018 and 22 December 2018. We asked if we had identified the correct steps and consultation measures, whether the proposed timetable was achievable, and ways everyone can get involved updating the plans. We received 148 responses to the consultation from a variety of groups and individuals, including the water industry, local authorities, catchment groups, local wildlife groups, and research organisations.

River basin planning draws together the aims, objectives and actions from many water related plans and strategies. We asked whether we had identified the right plans and strategies. You told us that we need to consider other plans and strategies, such as those

¹ under regulation 29 Water Environment (Water Framework Directive) (England and Wales) Regulations 2017

relating to flood risk management, mine water, climate change, agricultural initiatives, coasts and estuaries, and protected areas. In particular, you highlighted the need for us to consider how we:

- work with local and combined authorities to ensure local development plans maintain or improve the water environment
- make better reference to national marine policy and consider transitional and coastal waters more
- consider the new drainage and waste water management plans (DWMP) and flood risk management plans (FRMP)

We asked if the proposed programme includes all the significant steps to review and update the plans. Most of you said that we had, but also referred to learning lessons from previous updates, cross-border working, and incorporating the natural capital approach.

We asked if the timetable was realistic and achievable. Most of you felt that it was. However, following consultation we took the decision to slow the current phase of work updating the river basin management plans due to our need to focus on prolonged dry weather and flooding incident work. As such, the Challenges and Choices consultation started 5 months later than planned in October 2019.

We asked whether we were working with the right organisations when reviewing and updating the plans. You suggested some other organisations to consider. Where appropriate, we contacted these groups and, if they agreed, added them to our stakeholder engagement lists.

Many of you referred to the Catchment Based Approach (CaBA) and catchment partnerships. These were both positive and negative. You recognised that catchment partnerships have made a very positive contribution to implementing an integrated approach to improving local rivers, but that the inclusivity and representation on some groups could be improved. We have raised this issue at the national level with the [CaBA National Support Group](#)².

You also questioned the inclusiveness and effectiveness of the national Water Leaders Group³. As a result, we reviewed its membership and invited additional stakeholders to join.

Finally, we asked if, having read this consultation, you knew how to get involved with reviewing and updating the plans. The majority of you said you did.

² The National CaBA Support Group (NSG) plays a key role in championing the catchment based approach across all key sectors including water industry, agriculture, business and Local Government.

³ Water Leaders Group - comprised of national organisations from a range of sectors with responsibility for or an interest in leading the strategic management of England's waters (see Appendix 6.2 for full membership).

1.2. Challenges and Choices consultation

You can find further information on this consultation and river basin planning in the [challenges and choices links document](#).

1.2.1. Timetable

The Challenges and Choices consultation asked for views on the challenges our waters face and the choices and changes we all need to make to help tackle them. This document summarises the responses to this consultation and will help shape the future approach to the management of the water environment and will be used to update the existing river basin management plans.

We started consulting on 24 October 2019, aiming to complete after the 6 month statutory period on 24 April 2020. However, as a result of coronavirus and feedback, we extended the deadline for submissions by 5 months to 24 September 2020.

1.2.2. Objectives of this document

The objectives of this document is to summarise information on:

- the number of responses submitted
- the types of organisations responding
- how people responded
- the key messages responders gave for each question

This document is a 'you said' summary and does not state recommended actions we are considering as a result of your suggestions. We are setting out these actions in the draft river basin management plans which we will consult on over a 6 month period, offering an additional opportunity for all to comment.

1.2.3. Overview

Challenges and Choices seeks views on:

- the challenges threatening our water environment
- working together to improve our waters and catchments
- who should pay

We designed and shaped this consultation on 6 key principles:

- for everyone to get involved
- addressing the biggest, current and future challenges facing the water environment
- focusing on what we can all do and the choices we have
- offering a range of films, infographics and links to detailed information
- providing the most up-to-date technical position on key work
- asking a range of questions – from those designed to give the public a voice, to detailed questions on specific policy issues
- taking a layered approach, presenting everyone the level of detail appropriate for them

We published the consultation documents online and made hard copies available in all of our main offices in each river basin district. Each key environmental challenge was presented as an online page and supported by our ‘Small Changes, Big Picture’ films. Here is the list of films available on [Environment Agency TV](#):

List of films to support this consultation

Film title	Link
Managing Water in Our Environment	Managing Water in Our Environment
Climate Crisis	Climate Crisis
Changes to Water Levels and Flows	Changes to Water Levels and Flows
Chemicals in the Water Environment	Chemicals in the Water Environment
Invasive Non-Native Species	Invasive Non-Native Species
Physical Modifications	Physical Modifications
Plastics Pollution	Plastics Pollution
Pollution from Abandoned Mines	Pollution from Abandoned Mines
Pollution from Agriculture and Rural Areas	Pollution from Agriculture and Rural Areas
Pollution from Towns, Cities and Transport	Pollution from Towns, Cities and Transport
Pollution from Waste water	Pollution from Waste water
Complete playlist	Small Changes, Big Picture Playlist

Each challenge page was presented with a brief overview containing infographics and links to more detailed information. These pages contained information and questions on who pays, catchment partnerships, the ‘water story’ and river basin planning.

We also provided additional information on specific pressures and issues. This included, nitrate, phosphorus, faecal contamination, fine sediment, Natura 2000 sites and drinking water protected areas.

1.3. Implications of European Union exit for river basin planning

The Water Framework Directive (WFD) was transposed in UK legislation and became retained domestic law at the end of the transition period. Therefore our obligation for reviewing and updating the river basin management plans in England is set out in our domestic law⁴. As such, we are reviewing and updating these plans and publishing them under current [WFD regulations](#).

⁴ principally the Water Environment (Water Framework Directive) (England and Wales) Regulations 2017, as amended by the Floods and Water (Amendments etc.) (EU Exit) Regulations 2019

2. Challenges and Choices responses

We would like to thank all of you who took the time to contribute to this consultation. This document summarises your responses. We are using your voice to shape the future approach to managing our water environment and updating the existing river basin management plans.

2.1. Summary of responses

We received 606 responses, mostly submitted via the web based consultation tool. Responses came from a range of groups and individuals, including the water industry, local authorities, farming industry, navigation authorities, catchment partnerships, and local wildlife groups. A full list is in Appendix 6.3. We also received a poem from an 11 year old child (Appendix 6.4).

Where permission was given, we published all responses on our [consultation website](#). We were not able to publish comments including personal details, names of individuals or offensive language.

2.1.1. Summary of consultation details for each river basin district

The responses cover a wide range of issues and locations. 243 responses are relevant to the whole of England with others specific to a geographic area in an individual river basin district. Some responses also refer to multiple river basins, hence the total is greater than 606.

Number of responses by river basin district

River basin district	Number of responses
All England responses	243
Anglian	92
Humber	63
North West	49
Northumbria	25
Severn	41
South East	82
South West	54
Thames	124
Multiple RBDs	115

2.1.2. How did people hear about this consultation?

We emailed over 3000 people and organisations inviting them to take part; we placed a notice in each river basin district's local regional newspaper; and used social media to promote the consultation.

We supported staff and partners to raise awareness, encouraging all to input at existing catchment partnership events. We also highlighted this consultation with existing groups,

such as the regional flood and coastal committees (RFCC). Here is a summary of how people said they heard about this consultation:

How people stated they were made aware of the consultation

How were people notified of the consultation?	Number of people
Small changes, big picture films	5
Social media	72
Internet search	10
Engagement with Environment Agency	215
Advert in newspaper	2
Email from the Environment Agency	118
Government website	20
Other	150

2.1.3. How you submitted responses

Most responses were submitted online via the web based consultation tool. 80 responses were also emailed direct to us at RBMPconsultation@environment-agency.gov.uk and we manually added these to the web based consultation. No other form of response submission was used.

2.1.4. Who submitted responses to the challenges and choices consultation?

The 606 responses we received were from a wide range of organisations and individuals. We categorised each response into the following:

Number of responses per organisation type

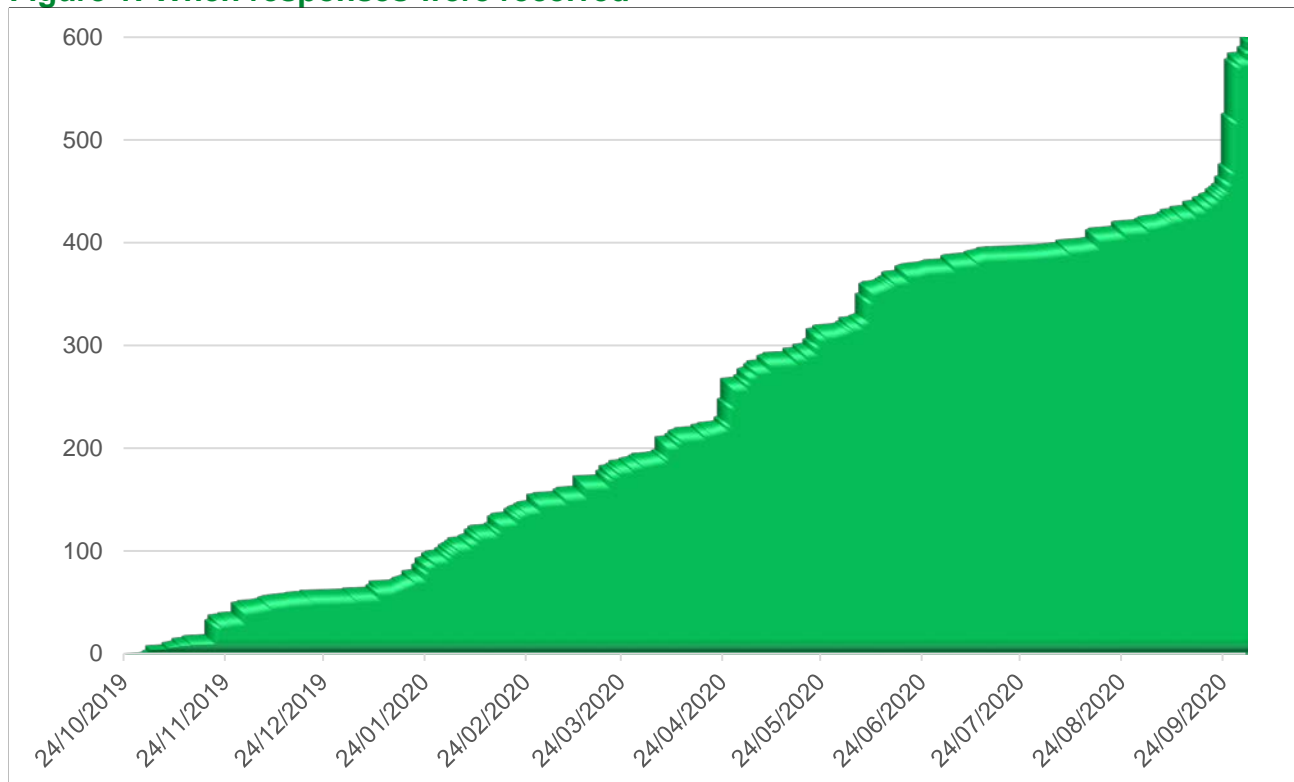
Organisation type	Number of responses
Agriculture and rural land management	16
Catchment partnership	57
Schools and youth	2
Energy or other utility	2
Government department or public body	8
Health and wellbeing	0
Local authority	32
Local Enterprise Partnership	0
Local Nature Partnership	3
Marine, coasts and estuaries	10
Navigation or Port Authority	3
NGO or charity	111

Other including businesses	31
Protected Area management	9
Recreation	12
RFCCs and flooding	5
Research or academia or professional institutes	5
Water company	15
Individual	285

2.1.5. When did we receive your response?

As with previous consultations, we anticipated receiving most responses during the last 2 weeks of the consultation, peaking in the last few days. However, the peak was less marked this time probably because we extended this consultation by 5 months. The cumulative number of responses received is summarised in Figure 1.

Figure 1: When responses were received



3. Summary of key consultation submissions

3.1. The water story

The Challenges and Choices consultation document summarised the importance of water to all our activities, estimating the fresh water asset value in the UK at £39.5 billion. In England about £5 billion is spent per year to protect water, public health and wildlife from a polluted water environment.

One of our biggest challenges is investing the amount of time and money we think it will take to protect and improve our water assets, prevent further damage, and get back benefits lost. At the current rate of progress it will take us many years to reach the government’s 25 Year Environment Plan target of at least 75% of waters close to their natural state. We all need better, faster ways to get more investment and action for the water environment we share.

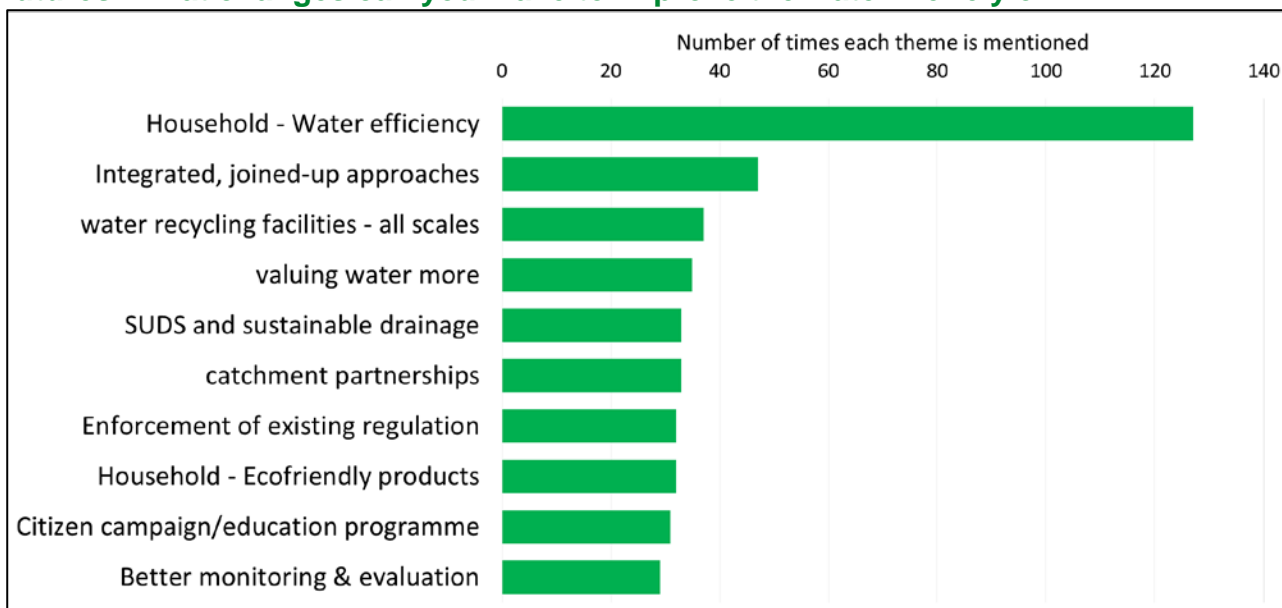
Only 16% of England’s groundwater, rivers, lakes, estuaries and seas are in their natural state. The climate is changing and there is more people than ever before. This is bringing big challenges that need us all to make equally big choices to do things differently.

3.1.1. Consultation question 1

The way we treat water today will shape all our futures. What changes can you make to improve the water we rely on?

There were 518 responses to this question. Figure 2 summarises the top 10 themes respondents gave answering this question.

Figure 2: Top 10 themes question 1 - the way we treat water today will shape all our futures. What changes can you make to improve the water we rely on?



You told us...

You gave examples of what you are doing to improve the water we all rely on and changes you will commit to making. You also told us about changes you want to see others make and how you thought policy, legislation and regulation should be created or improved to bring positive change.

Water efficiency in the household

You said you are striving to improve water efficiency in many ways. You provide examples of choosing efficient and eco-friendly products, recycling grey and rain water, installing more efficient devices and plumbing, choosing a short shower over a bath and being responsible for what you put down drains. Many of you said you are using water meters and want them made compulsory - making people aware of their household water consumption and cost.

You encourage these approaches with others, and many of you said you want to see homeowner, school, business and industry education campaigns. These would raise awareness of the importance and benefits of water efficiency, as well as calling for the government to bring in mechanisms and incentives.

Beyond the home, many of you said water recycling and efficiency, including reducing leakages, is paramount to a sustainable water environment.

Working together

You highlight the work you are doing with others, either individual volunteering or as organisations, working in partnership and sharing best practice. You underline the importance of working together to achieve more beneficial outcomes for water, particularly given limited resources. You call on the Environment Agency and other government bodies to work more closely together and integrate planning, particularly flood planning. You highlight the work by catchment partnerships and call for them to receive greater national support and investment from the private sector. You state the benefits of allowing for long term planning, funding and projects as well as working at the appropriate scale to tackle challenges.

Valuing water

The importance of valuing water, and how essential it is to life and livelihoods, is a common theme. You said a behavioural change is needed by society. You said water is not valued highly enough and it is everyone's responsibility to contribute to a sustainable water future. You call for better education at all levels, including manufacturing and retail, helping others understand their impact, as well as the benefits of water. You also said consumers cannot do this alone and that government needs to do more on awareness raising and legislation. For example, you said that 'hidden' water used in products should be made clear through labelling. You said you treat water as a precious resource and use water recycling systems to be more efficient. Many organisations highlight their aspiration to move towards net carbon zero. You state that not all businesses can be relied on to act in the best interest of water without introducing new targets for water usage, as well as increasing incentives and fines.

Awareness raising

Many of you refer to the work you do raising awareness on specific water challenges. This includes advice to agriculture and manufacturing sectors, sharing sustainable abstraction best practice, mitigating risks of invasive non-native species, education programmes in schools and promoting the benefits of clean and plentiful water.

You recommend taking advantage of growing awareness of the climate and biodiversity crisis to raise the profile of how important water is. Many partnerships and trusts state they are working to inspire more people to appreciate the water environment, reducing consumption and pollution and inspiring volunteer action. You said there is more to be done to reach and engage people outside traditional water stakeholders. You said we shouldn't rely on volunteer action. Public awareness and education programmes for the private sector are necessary to enact the behavioural change you told us is essential for sustainable water use.

Regulation and legislation

You said we are not improving the water environment fast enough and that we are not enforcing current legislation; businesses are not being held accountable for meeting their environmental responsibilities. You state that government has a responsibility to deliver the benefits of the water environment by ensuring regulators have necessary resources for inspecting and enforcing. As such, government should be introducing new legislation, where necessary.

You propose a combination of incentives for action and strong, enforced, regulation. You said stricter legislation, particularly on development, sewerage and manufacturing is required. You want to see product bans and incentives for using eco-friendly products, stating that responsibility cannot be placed on consumers to drive improvements. You want to see an increase in fines for polluters. A common theme you raise is how important and significant chalk rivers are and how they are under sustained pressure. You propose enhanced protection for these unique environments.

25 Year Environment Plan

Many of you support the government's 25 Year Environment Plan, emphasising the environmental, economic and societal benefits that working towards it brings. You highlight that the challenge of climate change and population growth amplifies our need for ambition and investment. You said a fundamental shift is needed to ensure the future water environment is guaranteed for everyone. You call for more holistic planning, emphasising ecosystem services and natural capital approaches, and to focusing on embedding a circular economy.

You highlight the need to take on board the lessons from previous river basin management plans. You make it clear prioritising ambition at the highest level and commitment to increasing available resources is critical if we are to achieve targets. You said more investment in monitoring and evaluation is needed to maximise improvements and inform decision making, as well as making data accessible.

Estuaries and coasts

No specific questions were set out in relation to our estuaries and coasts due to the cross cutting nature of catchment thinking. However, coasts and estuaries are mentioned throughout with more than 150 different organisations referencing them.

Some of you suggest coastal and estuarine waters have been overlooked in river basin management plans and need factoring strongly into planning. This has implications for bathing waters and fisheries (including shellfish waters), biodiversity and flood risk.

There has been a significant decline in our estuarine and coastal ecosystems in the last two centuries. Between 25-50% of historic global saltmarshes have been lost (85% in England). Seagrass beds globally are disappearing at an estimate of 7% each year and disappeared in up to 50% of English waters where it once occurred. The UK has lost 95% of our historic native oysters. There is a need to significantly restore the extent and quality

of estuarine and coastal habitats to improve ecological status, enable biodiversity recovery and provide resilience to climate change impacts.

Many of you stress the lack of national and local action planning as to where to restore estuarine and coastal habitats. You suggest local mapping to establish priority habitat restoration zones. You also call for a collaborative estuarine and coastal habitat restoration plan at strategic and local level.

You want to see national targets for saltmarsh, seagrass, oyster and kelp restoration and better funding mechanisms supporting restoration action. You suggest the need to introduce policy around 'eco-mooring' (specialised free-floating mooring) for all vessels mooring where habitats are sensitive to abrasion (such as seagrass).

Many of you reference the value of 'blue carbon targets' (carbon captured by the world's ocean and coastal ecosystem) to help restore and create estuarine and coastal habitats - these help sequester carbon and contribute to meeting the UK net zero targets. You also want to map carbon sink hotspots and identify where to protect them. You stress the need for central funding for initiatives supporting habitats which increase rates of carbon sequestration.

A key theme raised is the need to improve estuarine and coastal water quality through greater water quality improvements upstream. You suggest mandatory sustainable drainage systems (SuDS) along estuarine and coastal corridors to help attenuate pollutants from roads. Many of you want to see water quality habitat buffer zones around sewage treatment works upstream of sensitive features, such as oysters and freshwater pearl mussels.

Some suggest we need stronger support for port and harbour sectors to ensure water quality is effectively managed, and fuel spills from barges and ships minimised.

You suggest sediments, and their relationship to the water environment around our coast, are poorly reflected in current thinking. You said a better understanding of sediment budgets is needed by having a stronger evidence base, so targets are set to both prevent negative impacts of sediment release and support positive benefits. You suggest payments or incentives for landowners on soft coastlines who are losing land to reward them for the new sediment they are contributing to coastal and estuarine systems.

You call for a better system for classifying sediments and shellfish waste, using this as beneficial material for restoring habitats. You suggest that a dredged material disposal hierarchy needs to be in place promoting better use of dredged sediment.

Many of you want to have a better understanding of how the shape of coasts will change in the future. You suggest mapping the extent of potential sea level rise and erosion hotspots around English coasts, under various climate scenarios, and prepare a plan for action. Many of you want to see an improved understanding of how 'working with natural processes' can help restore catchments and coasts.

A number of you said better investment is needed in public awareness campaigns to promote the ecosystem service benefits provided by coastal habitats such as saltmarsh, seagrass, kelp and oysters. You also want a better approach to facilitating stakeholder engagement and providing a suitable forum for discussion and cooperation at a relevant scale - making more use of the coastal partnership network. You said an approach similar to the catchment based approach is needed for coasts.

You also suggest using more citizen science approaches as a means of educating and engaging communities to become estuarine and coastal custodians, particularly in the face of diminishing resources for regulatory monitoring and evaluation.

3.2. Climate and biodiversity crisis

The Challenges and Choices consultation document summarised how climate change is the biggest threat we face - shifting to warmer, wetter winters and hotter, drier summers. At the same time, the growing population increases demand for homes, work places, transport, energy, drinking water and drainage infrastructure - increasing the spread and density of urban areas. To feed more people, agricultural land use is likely to change, putting even greater pressure on environment. We all need to be:

- planning for our futures together in partnership and consistently - this means planning for a range of possible futures, including a 4°C rise by 2100
- preventing the worst impacts of global heating by reducing greenhouse gas emissions as fast as possible
- building catchment resilience so the services people and wildlife rely on are better able to adapt to change

There is a biodiversity crisis: watery habitats are being destroyed, isolated, modified and polluted. The UK has lost 90% of its wetland habitats in the last 100 years and over 10% of freshwater and wetland species are threatened with extinction. Two thirds of wetland species are in decline. We need:

- new ways for conserving and protecting habitats and wildlife
- to be restoring and creating more wetland as part of building Nature Recovery Networks
- increasing resilience to climate change by working with and restoring natural processes in catchments and coastal waters
- to change land use around water-dependent sites to safeguard specially protected wildlife

Further information is in the [climate crisis challenge document](#) and the [biodiversity challenge document](#).

3.2.1. Consultation question 2

What more can we do to tackle the impacts of climate change on the water environment and what additional resources (including evidence, targets, tools and additional mechanisms and measures) do we need to do this?

There were 512 responses to this question. Figure 3 summarises the top 10 themes respondents gave to this question.

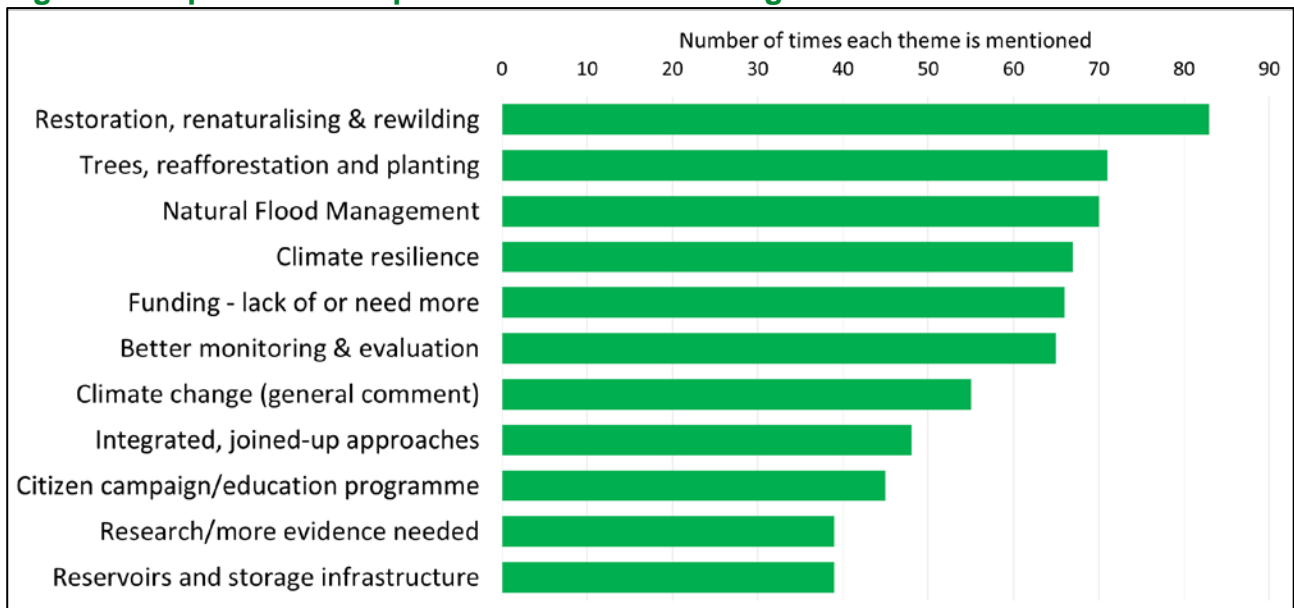
You told us...

Nature based solutions

A key theme is using nature based solutions for increasing climate resilience. Many of you mention restoration, re-naturalising and rewilding. Suggestions include reintroducing beavers; restoring natural river processes; restoring habitat; restoring uplands, peatlands, moorlands, wetlands and soils; and reconnecting rivers to their floodplains.

“We should prioritise projects that act as carbon sinks, like tree planting, soil regeneration, moorland restoration etc. Most of these projects have multiple benefits improving biodiversity, fisheries, water quality.”

Figure 3: Top 10 themes question 2 - climate change on the water environment



You suggest including nature based solutions in waste water treatment:

“Waste water treatment wetlands are an option which should be promoted, as they provide valuable habitat, carbon sequestration, as well as a more sustainable waste water treatment process asset.”

To implement these measures you suggest more public and private investment and that nature based solutions are written into legislation to ensure delivery.

Many of you suggest tree planting in more upland and riparian areas to help with mitigating climate change impact through carbon storage, and reducing water temperatures by increasing shading. Although “natural solutions such as tree planting must be follow the maxim, the right tree in the right place.”

Natural flood management

Many of you support more use of natural flood management for increasing climate resilience and reducing flood risk. You suggest measures like natural flood management throughout catchments and particularly in headwaters to reduce peak flows in rivers. For this to occur you said:

“Natural flood management must become a national strategic water planning priority – it is encouraging to see it prioritised in new public spending on flood measures, and feature so prominently in the new Environment Agency FCERM⁵ strategy.”

Additional monitoring and evaluation is required if natural flood management schemes are to demonstrate how they reduce flood risk to become business as usual. Also, you said we need additional funding for engaging farmers and landowners in monitoring and maintaining interventions.

Water efficiency

You recognise that we all need to use less water in our daily lives. Suggestions on how to implement this include subsidies for home improvements like rain water harvesting,

⁵ Flood and coastal erosion risk management
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compulsory water meters and changing consumer behaviour through education. For example:

"Every house should be built with rainwater collection, filtering and storage facilities, with piping to enable rainwater to be used in washing machines (no limescale deposits!) and toilets."

You said the private sector can improve their water efficiency by reducing abstraction, fixing leaks in pipes, installing grey water recycling infrastructure in new build homes and introducing a: "traffic light system on food and clothing indicating 'water cost' of products."

Suggestions that the government could do more include increased funding for upgrading water infrastructure and:

"Incentivising water storage reservoirs and rainwater harvesting, revising hose pipe bans to focus more on environmental impacts."

"Water labelling, linked to enhancing water efficiency standards for new homes via building regulations, should urgently be brought forward to help reduce abstraction demands."

Water storage infrastructure

Many of you suggest storing water from wetter winters to manage drier summers. You said more reservoirs need to be built with greater investment. These should be built in the right places and achieve biodiversity net gain.

Using water in agriculture is another key topic with suggestions including funding for on-farm water storage like holding ponds for storing excess water from winter months. This can provide multiple benefits such as flood risk management and increasing biodiversity. You suggest water companies work with farmers to improve water practices:

"...an option for water companies to consider would be to trade water with farmers. This might be achieved through offering a grant to farmers who wish to irrigate, to build on-farm winter rainfall storage reservoirs. In exchange for the grant, the farmer would trade or transfer their summer abstraction licence to the water company."

Modelling

You said that different modelling practices are needed. These include more modelling of:

- future climate change scenarios
- links between abstraction, flows and rainfall
- dissolved oxygen content in waterbodies due to warmer temperatures and potential impact on aquatic habitats
- areas for riparian tree planting
- flood modelling
- predicted sea level rise

You want to ensure climate pressures up to a 4°C increase in world temperature are considered:

"Only by gathering and understanding this evidence will we be able to identify and monitor the effects of climate change and develop appropriate mitigation and adaptation strategies."

Monitoring and evaluation

Many of you highlight the need for more monitoring and evaluation by the Environment Agency on climate change indicators, like chemical and biological changes, sediment

movement and species identification. New technology is suggested to improve monitoring such as constant remote monitoring.

“Rather than decreasing monitoring, The Environment Agency should be increasing monitoring and data collection and making data available to inform local decision making.”

Education

Educating people on the impacts of climate change and how we can mitigate impacts is vital for initiating behavioural change. Achieving this through awareness campaigns such as “‘best practice’ posters and advice for shared work spaces including ‘top tips’ for saving water.”

You said campaigns should focus on individual changes we can all make at home like naturalising gardens and harvesting water. Education on the impacts of climate change and actions we can all take individually should be part of national curriculum in primary and secondary schools.

Other comments

- Many of you express positivity for the proposed Environmental Land Management (ELM) scheme and the Agriculture Bill (now the Agriculture Act 2020) as key mechanisms supporting “nature-friendly and carbon sequestering methods of farming”, better soil management and continuous improvements to the environment.
- Nature Recovery Networks are identified to “deliver net gains in biodiversity, developing robust ecological networks that are resilient to climate change through habitat enhancement, expansion, restoration and creation including improving habitat connectivity by establishing buffer zones, linear corridors and ‘stepping stones’.”
- Floodplain development is a major concern for many of you - you said “stop building on floodplains and ensure rivers are connected to floodplains so that they flood as they are meant to.”
- Many private sector respondents highlight their climate mitigation goals and pollution reduction targets, highlighting the appetite for more focus on climate change mitigation and resilience.
- Some of you state that greater enforcement of regulation by the Environment Agency is required:
“We believe that one of the greatest threats is the current lack of regulation and the hands-off approach applied to enforcement of existing legislation.”

3.2.2. Consultation question 3

What can we do to address this biodiversity crisis and meet the 25 Year Environment Plan targets for wetlands, freshwater and coastal habitats and wildlife?

There were 505 responses to this question.

You told us...

Biodiversity

You said that the biodiversity crisis needs urgent action. That it is crucial to protect and enhance biodiversity, to ensure that biodiversity continues to provide the ecosystem services people depend on. Restoring the functioning of ecological systems and the connectivity of the ecological network is vital to addressing both the climate and

biodiversity crisis. The importance of biodiversity for the health and wellbeing of people and to sustain the economy needs to be recognised and funded.

You note the importance of restoring and recreating a range of habitats and taking a landscape scale or source-to-sea approach as appropriate. You commonly refer to these habitats: rivers and smaller watercourses, wetlands including peatlands and reed beds, networks of ponds and small lakes, estuarine and coastal habitats and headwaters.

You also note that some important habitats are not well promoted through the existing river basin management planning framework. These habitats include ponds and lakes.

You welcome the changes planned to better take account of those species that need more action than general habitat improvements and suggest setting targets for species with particular requirements.

You want it recognised that declines in more common species is of concern and that there is a need to understand and stabilise these populations. Species noted of concern are water voles, and amphibians such as frogs and toads.

You said the impacts of non-native species both on habitats and other species and the need for co-ordinated and effective control of non-native species.

Many of you cite how, by re-wilding or re-introducing certain species, there can be huge benefits to the functioning of ecological systems and the ecosystem services that these systems provide. The most commonly cited species to consider reintroducing is beavers.

You said how important the biodiversity net gain requirements for new developments in the Environment Bill is in helping to halt the decline in the environment. Many of you said you want to see this requirement extended to other sectors and for more projects. You highlight the role of water industry, transport and other government bodies.

Nature based solutions

Many of you said there needs to be more investment in nature based solutions and these should be among the first options considered to address many of the issues facing us all.

You said how important it is to recognise the contribution that functioning ecosystems make towards river basin planning and the 25 Year Environment Plan. You highlight how good condition freshwater habitats, woodlands, grasslands and coastal and marine habitats can store carbon, slow and filter water, and increase resilience to extreme weather events.

Some of you express concern that where habitats are degraded or destroyed they can contribute to climate change, for example carbon release from degraded peatlands.

Nature based solutions commonly mentioned were:

- using habitat creation to offset carbon emissions
- using natural processes and habitats to reduce flood risk (natural flood management)
- using vegetation (trees, wetlands, grassland) to slow and filter water flow across land to improve water quality

Natural capital

Many of you recommend taking a natural capital approach and recognising the value of the natural environment in policy development and decision making. You said more needs to be done to recognise the value of the ecosystem services provided by the natural environment. You highlight the importance of a high quality environment for a healthy economy and for its multiple benefits to people including their health and wellbeing.

Some of you gave examples of where a natural capital approach is being applied by businesses and want to see more work done to help businesses understand their impacts and dependency on natural capital. Many of you said that you want to see public funding targeted to deliver public goods and the improvement of our natural capital assets.

Agriculture and land management

You said getting the new agricultural policy right is crucial to achieve a shift to more sustainable land use and management. There should be an emphasis on biodiversity recovery and improving soil health within the ELM scheme and other agricultural reforms.

There should be a greater emphasis on the importance of getting the right balance between food production and biodiversity at a landscape scale. Around 70% of UK land is farmed and this provides massive opportunities. You said that both food and biodiversity can be accommodated. You express concern that importing food from overseas not only potentially moves our environmental impact offshore, but could also damage the domestic market.

You said there needs to be more recognition of the ecosystem service values of functioning and diverse habitats. For example, species rich floodplain grasslands can help protect rivers and seas, while playing a role in enhancing food security through the local production of nutritious hay and healthy meat.

You note that there are many individuals, organisations, bodies and industries that manage land. These land managers need to be aware of the contribution they can make towards achieving sustainable ecological networks and addressing the biodiversity crisis.

Community involvement and education

You said how important it is to educate people on the importance of the natural environment and what we can all do to restore and protect it. A wide range of groups are suggested, with schools and communities frequently mentioned.

For schools, changing and broadening the curriculum to include more topics on the natural environment and environmental issues is suggested by many of you.

You identify the need to work with communities offering expertise and advice as crucial to positively engaging with communities and securing their support.

More use of citizen science to both build evidence and actively engage people with the environment is advocated. You would like to see greater use of citizen science as it can help to improve the knowledge of the current state of the environment and help to identify problems early.

Legislative changes

You suggest the need to work closely with government to continue to improve and where required strengthen the regulatory framework to achieve greater protection for the environment. Topics you identified as important are:

- preventing building on flood plains and other ecologically sensitive areas
- more regulation of the market economy in the public interest
- a new environment tax
- planning that takes better account the water requirements of a development and the water resource in the area

Planning and development

You stress the importance of connectivity of habitats and good spatial planning to address the biodiversity crisis and to contribute to the achievement river basin planning objectives. Having more connected, more diverse and naturally functioning ecosystems is vital to achieving river basin planning and 25 Year Environment Plan objectives.

You make many suggestions for improvements to how development is planned and undertaken. The main ones are:

- the need to stop building in floodplains and to recognise the importance of habitat connectivity both along the river and between the river and its floodplain
- promoting the development of comprehensive plans for blue and green infrastructure and promote the use of multiple benefit sustainable drainage (SUDs) options
- requiring biodiversity net gain for development and effectively enforce it
- using the nature recovery network and local nature recovery strategies to inform what and where biodiversity net gain is delivered
- recognising the links between the different plans, for example nature recovery and blue and green infrastructure, to make sure they work together to support a better connected natural environment

Research and evidence

You said that monitoring and sharing data are both really important and we should work with others to improve this evidence and make it more widely available. You said that in many cases the information or evidence is lacking so there is a failure to understand the status of many species, water quality issues affecting habitats and where best to use nature based solutions.

Many of you said that the evidence on the effectiveness of nature based solutions and river restoration needs to improve and there should be longer term monitoring to inform future actions. You note the Environment Agency often has data that is of use to others and we should continue to make this information available to third parties.

Regulatory role

You said there should be more joined up thinking and enforcement from the different government agencies. The agencies should be funded to undertake their enforcement roles when the natural environment is damaged. Those groups with the biggest impact on the water environment should be focused on to gain the greatest benefits.

Integrated working

You said that biodiversity, environmental health, and water and soil quality are all closely interrelated. Policies need to link up well, be catchment wide and long term. Many targets in the 25 Year Environment Plan overlap and should be looked at holistically with consideration for species and habitat restoration.

There is a need to better integrate freshwater, estuarine and coastal planning and understanding. What happens in rivers and estuaries can impact on the coast. River basin management and catchment plans can help facilitate "bridging the gap in the overlap" and greater collaboration between catchment and coastal partnerships could help to make this happen through a "coastal based approach".

You said the Environment Agency needs to improve its transparency, integration and linking up of schemes. Sharing expertise across different sectors of the Environment

Agency to maximise benefit and value for projects. This should include linking river basin management, flood management, biodiversity and habitat works.

You said the river basin planning process can contribute to fragmented thinking leading to pressures being dealt with in isolation, and that indeed the structure of the consultation takes this approach. A more integrated way forward is required.

Collaboration and partnerships

You stress the importance of working in partnership with a wide range of organisations. You said these partnerships should be set at the appropriate scale for example catchment or coastal scales.

You said one of the benefits of an integrated and partnership approach is committed investment not only achieving the required outcomes, but exceeding them. A partnership approach will also attract funding from a wider range of sources including private funding and ensure that the benefits can be spread more widely, across sectors and across the landscape. Other benefits from taking a collaborative approach are more resource for environmental monitoring; gathering evidence of the effectiveness of measures; more involvement from communities and better use of local knowledge to achieve effective landscape-scale interventions.

3.2.3. Consultation question 4

Environmental targets can generate action and provide a strong signal of intent. Could additional statutory targets contribute to improving the water environment? If so, what types of targets should be considered?

There were 494 responses to this question.

You told us...

Targets

Many of you want new targets and for these targets to be statutory rather than voluntary. Enforcing existing targets is a common theme with many of you saying there needs to be more effective enforcement and stronger penalties. Others said there are enough targets and that what is needed is the resource to ensure these are met either through funding to achieve the targets or by better or more enforcement. Many said the penalties for breaching targets should be higher and the 'polluter pays' principle more strongly applied.

Some of you are concerned that current targets are too blunt and do not allow for smaller local changes and that the current monitoring of the environment also makes it hard to demonstrate local issues or improvements. Others express concern that more or new targets will not drive the necessary changes and want any targets to ensure they don't lead to unintended consequences.

Some of you express concern about how any new targets may be set and suggest that targets should:

- be subject to consultation, especially with those that may be impacted by the target
- have a clear evidence-base for why they are needed
- have a clear baseline and be achievable, measurable and affordable
- take into account quality as well as quantity
- have the right supportive policy and funding mechanisms in place

- have been assessed to understand costs and benefits and the trade-offs that will be required when the target is implemented

You suggest alternatives to targets: examples included an awards system like the Blue Flag award for water quality. This award would recognise where parks and green spaces are managed for biodiversity. Another suggestion is to mandate certain actions, such as for new developments to install water efficient fittings in housing and industrial premises.

Biodiversity

Many of you want targets set for habitat creation and increasing the connectivity of habitats. Suggestions included percentage increases for habitat, for example increasing wetlands by 30% by a set time or total areas for habitats to be created targets and linear targets for rivers to be enhanced.

You note that chalk streams are particularly sensitive and being uniquely important internationally. Having specific targets for abstractions and water quality in relation to chalk streams is suggested by many of you.

Some of you said coastal environments already have statutory targets under the WFD regulations, but there is a lack of understanding, monitoring, evaluation and management of these targets. Others said these issues should be addressed before considering any further statutory targets or designations. Some of you said there should be more specific targets for improving water quality and habitat creation and restoring estuaries and coastal waters. Habitats frequently mentioned were saltmarsh, sea grass meadows, oyster reefs and kelp beds.

Having targets to increase the connectivity of habitats is frequently mentioned.

Suggestions for this target included a percentage of areas connected, a linear measure for habitats connected and a target that recognised the importance of the connectivity of rivers to their floodplains.

Many of you said that rivers, wetlands and associated water bodies should receive a higher level of protection. Suggestions included having a similar protection as given to Sites of Special Scientific Interest (SSSI) and making the achievement of any targets a statutory duty of other organisations outside of the Environment Agency.

Expanding WFD good status targets or having something similar to cover headwaters and a range of small waters including ponds, small lakes and headwater streams is frequently suggested. These targets could be used to inform a catchment scale programme of measures that could be delivered in parallel to that for WFD targets.

Many of you said that having additional targets for species with specific water quality or flow requirements such as freshwater pearl mussel and brown trout, could help to fill gaps in WFD.

Soil health and sediment targets are a priority for many of you, with suggestions around setting national monitoring standards for sediment and a focus on reducing sediment at source and improving soil health.

You said linking biodiversity targets to the Nature Recovery Network should be done to identify areas where habitat creation and restoration should be carried out.

Reducing water use

Many of you said reducing water use and demand is a high priority and all new developments should reduce their impact on the water environment by reducing sewage and waste water; being more water efficient and minimising surface run off by having more permeable surfaces.

You suggest a range of targets including that all new developments are fitted with water efficient fittings and have a good standard of grey water recovery systems. For existing properties you suggest having targets to reduce consumption with grants available to help afford water reduction measures.

The rate of leakage for water companies is a concern for many of you, with many stating targets should be stronger and there should be more enforcement of targets.

Many of you suggest that more storage of water in high flows could reduce pressure in times of low flows or drought. You also suggest that water transfer between areas of high rainfall and areas of greater water need could help to ensure the efficient use and management of water.

Monitoring

Many of you feel that, for targets to be effective, there needs to be more monitoring. You want to see more innovative monitoring of the quantity and quality of water use and effluents, with ways to trace this back to the polluter. You link better monitoring to reducing a range of pollutants in the environment. Many of you said that the current range of pollutants is too narrow and more should be being investigated and understood.

You want to see more effort put into monitoring some of the chemicals and pollutants that are issues now and those that may become an issue in the future. Examples of these pollutants are hormones, drugs and pesticides.

For monitoring of the aquatic environment you want to see more quantitative monitoring and tools to help consider long term declines of insect and other invertebrate populations.

Agriculture

You want to see more regulation on the levels of permitted phosphate, nitrate, pesticides, herbicides and sediment allowed into the water systems. You said enforcement should be stronger and the penalties for not complying should be higher. Many of you also want targets for soil health and carbon storage and for these to be linked to ELM and the Agriculture Bill (now the Agriculture Act 2020).

You want the ELM, and any other agricultural schemes, to support more environmentally aware farming via habitat creation and more natural features being created. You want more support for both common and widespread species of plants and animals. Some of you ask for a mandatory riparian or marginal zone adjacent to watercourses.

Planning and development

Many of you stress the need to use targeting within the planning system to better address achieving biodiversity net gain, reducing water use, blue-green infrastructure and building SuDS that deliver biodiversity enhancements. Some of you want to see targets to make new developments take account of the water resource available and controls put in place to stop developments that breach water resource targets.

Others suggest there needs to be better targets for transport infrastructure to reduce its impact on the water environment. You want to see more measures to improve and protect water quality and to reduce the impact of changes in drainage on sensitive habitats.

Natural capital

Many said you want to see more targets that take a natural capital approach which consider more than one outcome and multiple benefits. You suggest that a target for a national natural capital baseline, with an ambition to increase overall natural capital, would help to drive an improvement in our natural assets. You want to see a less siloed approach to targets with more nature based solutions.

You want to see targets that are flexible enough to account for multiple benefits delivered, rather than purely the value of a single outcome. Similarly targets should consider a full lifetime analysis of outcomes to understand environmental benefits and ecosystem services as they change through the maturation of restoration works, not just the initial results of work.

3.3. Challenge 1: Changes to water levels and flows

In the consultation documents we stated that water taken from rivers and aquifers benefits all parts of our economy, from farmers to energy producers. Water is pumped from rivers and groundwater, cleaned at a water treatment works, and then pumped into homes or businesses. This water is then flush it into the sewage system. From there it is pumped to the treatment works to be cleaned and discharged to rivers or the sea. However, there are areas where too much water is taken from rivers and aquifers.

As the climate changes and our population grows, demand for water will also grow. Over-abstraction damages rivers, springs, aquifers, lakes and wetlands, because it reduces where wildlife can live. It becomes more difficult for fish to reach the places they lay their eggs (their spawning grounds) and to where they travel to feed and mate.

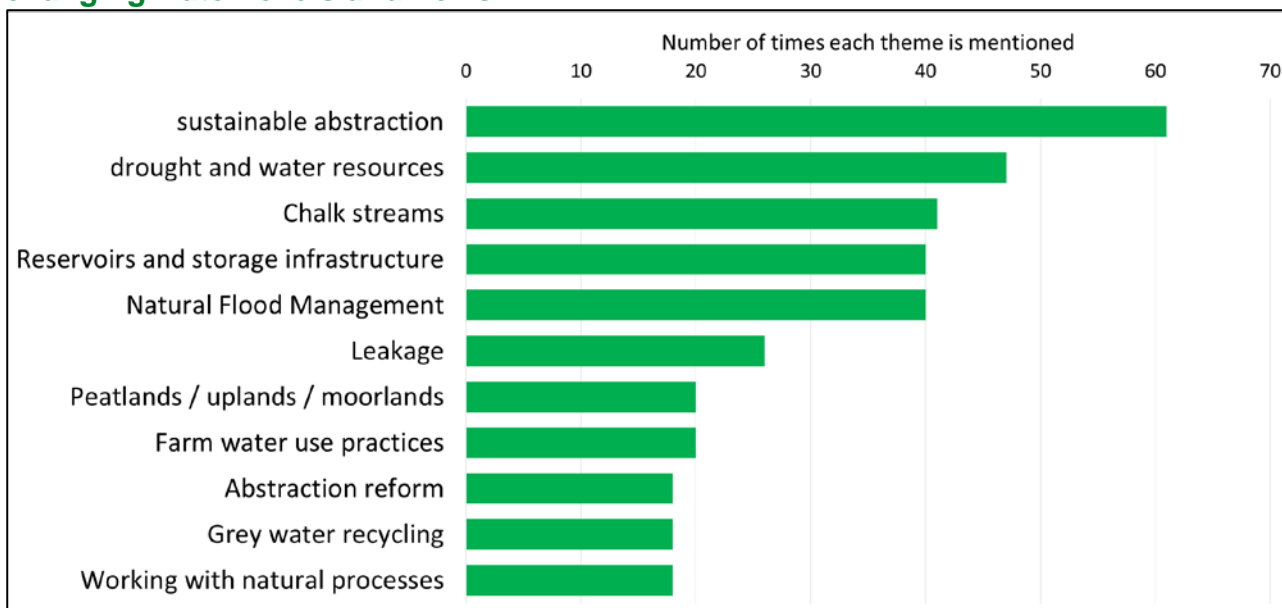
For further information on this challenge see the [changes to water levels and flows challenge document](#).

3.3.1. Consultation question 5

What can be done to address the challenge of changing water levels and flows?

There were 483 responses to this question. Figure 4 summarises the top 10 themes respondents gave to this question.

Figure 4: Top 10 themes question 5 - What can be done to address the challenge of changing water levels and flows?



You told us...

You want to see the real value of water explained better. You want the government to be a much stronger champion for water scarcity, and to act on the multiple benefits of monitoring and managing water resources in real time so abstractions can be flexible and based on actual available water. In light of climate change and altered flow patterns, extreme weather events and shifting seasons, current water management is not fit for purpose.

You suggest that ambitious targets are needed on water consumption leakage and metering as locally water consumption per person is often high. Some local planning authorities are including water consumption targets in their local plans.

It is suggested that stronger provisions are needed to achieve greater resilience by promoting water conservation and reduce water consumption especially by households in water stressed catchments.

Many of you want to see stronger drought triggers and measures, especially for chalk rivers, and these should be weighted further in favour of the environment.

A number suggest that there should be much stronger links between water companies and planning authorities and a much stronger focus on water resources in new developments and that environmental NGOs should be involved and provide support in changing local attitudes and education.

You said water resources and environmental legislation should be simpler and enabling. Legislative complexity must be removed or reduced, studies and reports produced by all organisations should be considered more, and farming practices must encourage sensible use of water.

You said there needs to be support to make reservoir development easier (local supply and farm reservoirs). There should be fiscal incentives for farmers to construct individual farm reservoirs, and for licences to be flexible, with real-time in-river flow monitoring, so that they can be refilled at any time above agreed local river flows.

It is suggested that the Environment Agency should be more transparent in sharing data and information on abstraction, flows and the water levels of aquifers for each catchment allowing others to produce an informed opinion.

Many of you said that all parties need to work more closely with natural processes at a catchment scale to manage water quantity, flow and levels and resilient habitats from source to sea are needed. More wetlands and upland peat restoration as well as more riparian woodland creation is needed. In lowlands you want to see less domestic water use and responsible land use promoted. SuDS need to be used more to increase the resilience in catchments.

You said there should be incentives for using less water and an increase public awareness on water scarcity; and there should be better harvesting and storage of water, rain water and land drainage.

You said it is important that a stronger link is made between cheaper green energy and moving water to provide secure supplies and resilient catchments.

Many said that non-water company stakeholders have innovative approaches worthy of consideration in addition to the expectation that water companies will innovate. The regulatory framework, in both water resources and beyond, also needs to evolve to accommodate novel multi-sector solutions being developed where appropriate and consistent with environmental needs.

Opportunities available through ELM schemes should be optimised, with farmers moving away from water dependent crops such as potatoes and vegetables. You want to see seasonal abstraction used more and you want to allow abstraction when flows are high. In addition you want to encourage water and catchment sensitive farming practices, crop rotation water audits and water harvesting.

You also want to strengthen the requirement of water companies to produce robust water resources management plans with proper assessment. You want to implement strong measures to achieve balances of supply and demand which meet the needs of abstractors and the environment.

Abstraction reform and the provisions in the Environment Bill to remove the right to compensation should be implemented sooner. Abstraction reform needs to be more ambitious.

Some comment that abstraction licence conditions that were relevant at the time they were granted may no longer be appropriate, due to pressures such as climate change. You ask whether there is a need to re-visit retrospective permits and consider high level policy adjustment in the interests of climate change adaptation and water ecosystem integrity.

Drought management plans should be in place for all major abstractors of water. These plans should be done in collaboration with other users within the catchment to ensure a joined up approach.

You said that more active water stewardship makes sound business sense for many sectors too. For example, for food and beverage retailers via their influence over the supply chain, and this should be encouraged via the sharing of best practice across both industry sectors ('top down') and among catchment practitioners ('bottom up').

Many said that working with natural processes to restore river corridor functionality should be an overarching priority where possible. You said it will be necessary to find solutions to drive riparian land use changes which allow for natural movement of watercourses. For example, this could be through providing payments for natural processes, or encouraging farm diversification.

3.3.2. Consultation question 6

The abstraction plan, referenced in the changes to water levels and flows narrative, explains our current and future approach for managing water abstraction. What else do we need to do to meet the challenges of climate change and growth while balancing the needs of abstractors and the environment?

There were 381 responses to this question. Figure 5 summarises the top 10 themes respondents gave to this question.

You told us...

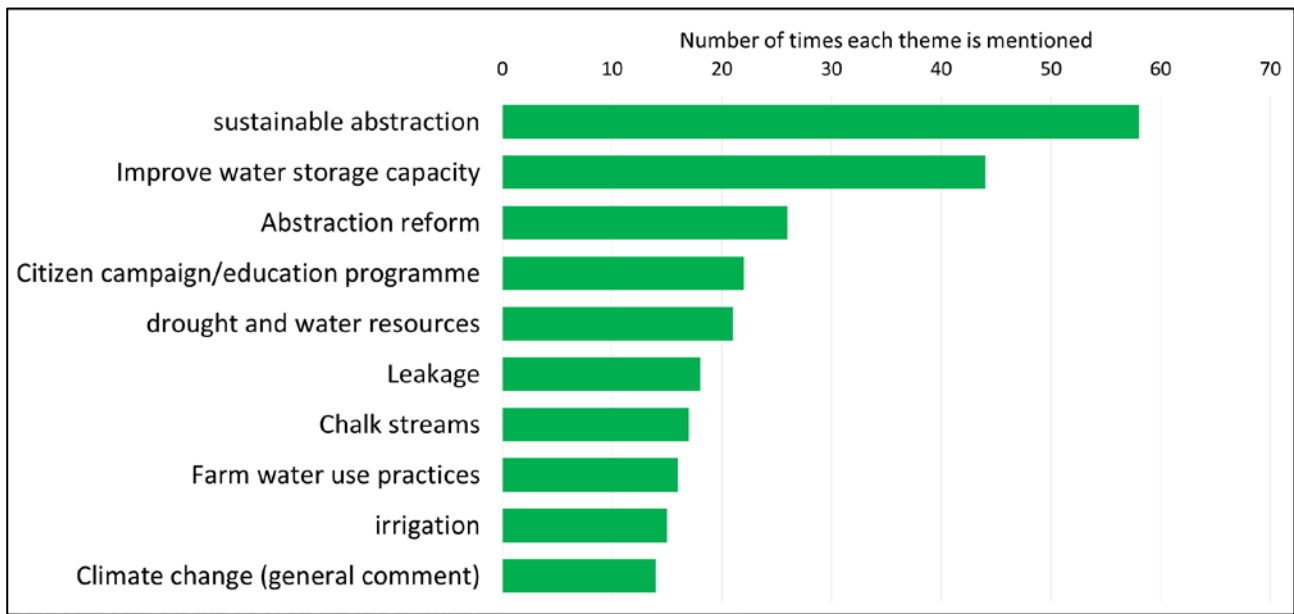
A much better understanding of the impacts of climate change on the ecological health of our rivers is needed, and an understanding of what steps are needed to mitigate these informed by sound data and scientific analysis.

Some of you said that appropriate cross sector water sharing arrangements has the potential to provide improved economic efficiency of both water and water rights use, while also contributing to affordable resilience across multiple sectors.

You said it is important to separate climate change and over-abstraction issues. Each will require different measures and approaches.

There should be action to significantly reduce reliance on groundwater for potable and agricultural water supply where groundwater abstraction is an issue. Abstraction reform must be better supported by connected government policy, such that it clearly makes the link between growth, land-use and their impacts on the water environment and seeks to reduce these.

Figure 5: Top 10 themes question 6 - What else do we need to do to meet the challenges of climate change and growth while balancing the needs of abstractors and the environment?



Many said that there needs to be a stronger link between water company obligations to supply households with water and housing development. Also that there need to be higher standards on leakage control and tightened minimum mandatory household standards at all times.

You said environmental NGOs and other organisations should have a role in promoting education and awareness of the value of water and reducing consumption.

You want to promote outcomes at a catchment scale to provide real outcomes and benefits; and that working with natural process such as peat, river bed and wetland restoration catchment sensitive farming are all important in sustaining resilient catchments. You see a strong link between health and well managed soils and more resilient rivers.

You want closer working with individual landowners (especially farmers) to promote responsible, resilient and sustainable water management plans which are reviewed on a regular basis. Continued support and incentives are required. You said it is important to integrate more closely with agriculture and to fully explore opportunities with ELM schemes.

You said there should be an increased and nationally coordinated effort to change behaviours in water use to support messaging from the water industry. Increased regulation and enforcement should be put in place to ensure new developments are fitted with water efficient equipment and as a minimum government should implement a mandatory water efficiency labelling scheme for efficiency of household equipment.

Many call for a national water grid to move water from wetter to drier regions. As the climate continues to change there needs to be measures to adjust land use management

to compensate. For example, planting trees and shading rivers to reduce temperature and evaporation and the widespread implementation of nature based solutions including wetland creation.

You said promoting small scale hydro-electric schemes would help smaller scale and distributed storage of water as well as generate renewable and clean energy.

In addition, you said that growing water hungry crops in the south and south east may no longer be sustainable, nor the widespread planting of maize, which can be damaging to soils and cause soil loss in the autumn after harvest.

Some of you said stronger provisions are needed to achieve greater resilience by promoting water conservation and reduce water consumption especially by households in water stressed catchments. Water consumption per head is too high.

You said education is a key component of the environmental journey, conservation, efficiency and appreciation are key elements of this. Adopting an approach that recognises the various components that need to run alongside schooling, integrated into curriculum. Finding a way to badge these water related components as part of an environmental foundation. This would establish an 'environmental toolbox for life' and give an assurance that everyone coming through the school system would emerge suitably equipped.

There needs to be a cultural shift in the way water resources are managed is needed, through raising awareness and promoting the idea of a collective community social responsibility.

You want to re-assess the opportunities for holding water and the way water is both attenuated and held in and across the whole catchment system.

You said streams need to be adapted to hold more water (this could be achieved through working with natural processes, natural flood management and beavers). You call for adapting the way land is managed, toward improving soil quality and underwriting water quality (and quantity).

You said there is overregulation of some industries, particularly in relation to charging regimes which could jeopardise their existence. There is a balance between storing water during peak precipitation and helping balance river flows in drought.

A number of catchment partnerships recommend developing progressive and exploratory conversations with larger organisations and companies to develop innovative and progressive ideas that may help us meet the challenges faced.

3.3.3. Consultation question 7

What kind of a water flow environment do we all want? Should we maintain statutory minimum water flow and level standards universally across England as we do now, or go further in some places based on environmental risk?

There are 404 responses to this question. Figure 6 summarises the top themes respondents gave to this question.

You told us...

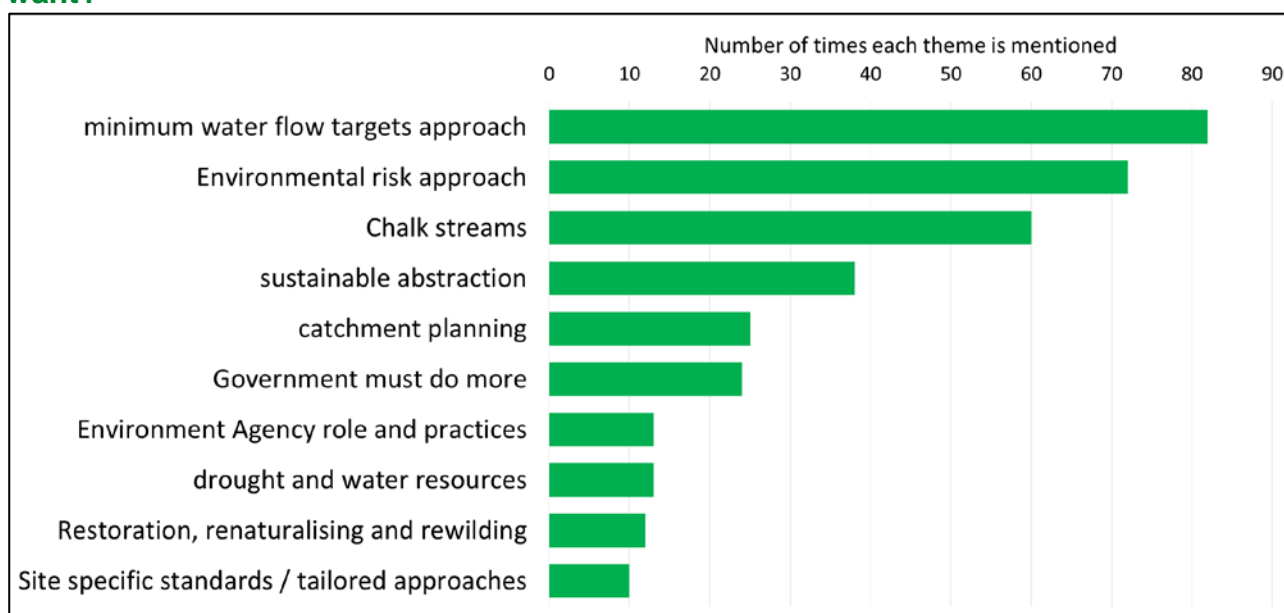
You recognise the importance of maintaining minimum water level or flow for the health of the river habitat and species. Some respondents support a flexible, risk-based approach to standards based on local circumstances allowing for innovation and that any statutory minimum water flow and level targets need to be enforced.

Some said more needs to be done to re-establish a 'good' water environment, including factoring in adaptation to a future climate. Using novel technology or nature based solutions (for example, biodiversity rich storage reservoirs for irrigation) will play a part.

The need to go further in some places should be prioritised based on ecological evidence and should also be considered in a catchment context rather than considering only the needs of specific sites, since water flows and levels through such sites cannot be managed in isolation. This approach needs to be taken on a case by case basis depending on the sensitivity of the water body and local ecology. Some of you think this is a stakeholder decision whilst others believe we should take these issues into account to set tighter flow targets in these areas. Some of you also think flow targets should reflect environmental needs across the flow regime and not just those for low flows.

In terms of environmental flow targets, you support ongoing investigations into the future evolution of the 'environmental flow indicator' (EFI) and favour the use of actual local evidence (for example, river ecological monitoring data), used alongside an improved EFI modelling approach, as part of the overall decision-making process for abstraction licensing.

Figure 6: Top themes question 7 - What kind of a water flow environment do we want?



Some of you said there should be higher standards for vulnerable environments such as chalk streams due to their uniqueness in an international context and evidence of impacts of recent droughts combined with over-abstraction. It is important not just to ensure that flow regimes are maintained, but also to ensure quality. The Environment Agency should have the statutory power to increase the statutory minimum water flow and level standards in specific water bodies where it is necessary to protect the ecological integrity of that particular water body.

Some of you said more is needed: rather than a minimum level, flow should be set as an ecologically functional minimum.

You recognise the importance of securing the right flows for Protected Areas. While some of you welcome 'common standards monitoring' of designated sites adopted by the country nature conservation bodies, more of you think this needs to incorporate individual assessment or consider risk in determining if higher levels of flows are required.

With much of England's watercourses being so heavily modified and controlled for flood risk, abstraction and navigation, some of you think there should be a move away from statutory flow requirements toward a much more environmentally based flow requirement. You recognise that trying to revert flows back to a more natural level is the ideal; however, due to the heavy modification of many watercourses, natural flow levels could lead to over wide and over deep channels which would reduce connectivity to the flood plain. Some of you think that the ideal is to balance the water flow and level standards slightly more towards the environment to improve ecological conditions and not just maintain them. Maintaining a universal statutory minimum standard is important because it provides some objectivity and consistency in the decision-making process.

Some of you want to see investment in real-time monitoring equipment to support flexible abstraction based on actual available water, linked to robust and environmentally sustainable national and local water flow standards.

3.4. Challenge 2: Chemicals in the water environment

In the consultation documents we described the challenge presented by the increase in new chemicals used in our homes, by industry and on farms. Without appropriate action population growth and climate change will increase this challenge. Chemical use will increase, and higher intensity, heavier rainfall as a result of climate change will wash more chemicals into the water from sewers and land. We all need to:

- reduce reliance on chemicals, where they are not needed, increase recycling, and reduce chemicals disposed of in waste
- work globally to reduce the risks of the most widespread chemicals
- identify issues early and take timely action
- reduce problem chemicals at source where possible
- employ a range of interventions to manage pollution, from voluntary initiatives to direct regulation, and from the safer use of chemicals to banning some chemicals completely

For further information on this challenge see the [chemicals in the water environment challenge document](#).

3.4.1. Consultation question 8

What can be done to address the challenge of chemicals in the water environment?

There were 438 responses to this question. Figure 7 summarises the top 10 themes respondents gave to this question.

You told us...

UK chemical strategy

Several responses from both NGOs and the public look forward to the development of the UK chemical strategy. This should:

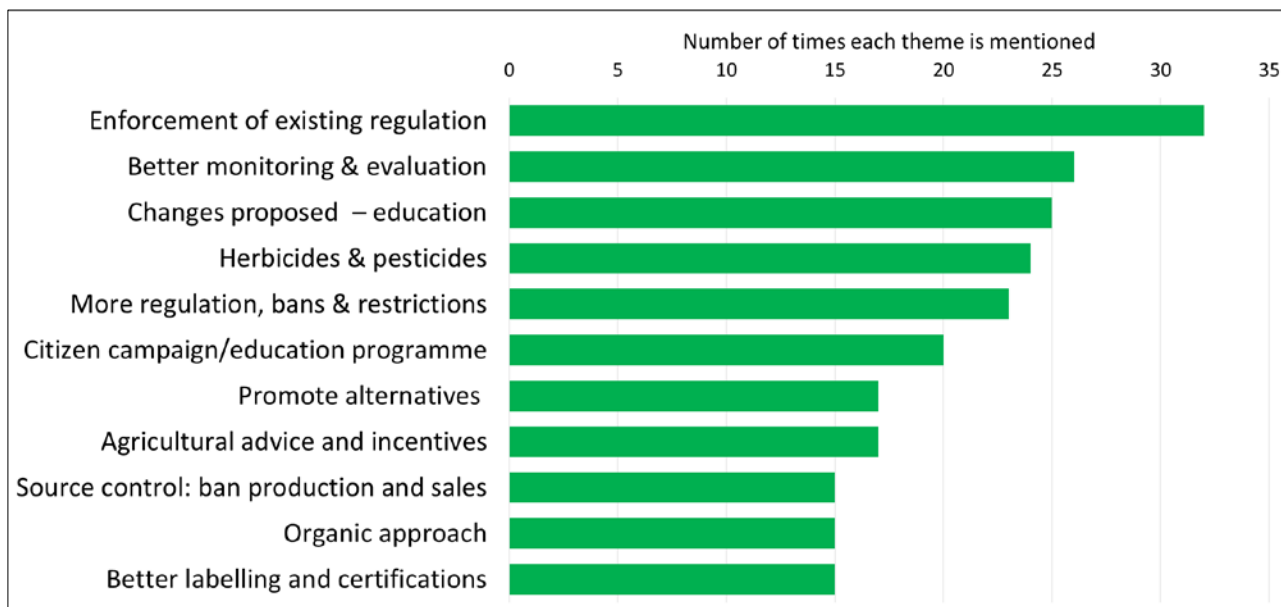
“Clearly define appropriate action and goals. We believe it is vital that the chemical strategy addresses the issues of pollution related to both legacy and emerging chemicals.”

“This presents an opportunity to consider societal challenges for the future use of chemicals including promotion of sustainable design, more efficient use of resources and

disposal. Recycling should also be a focus with education as a focus, but also innovation from industry to reduce chemical waste and develop more sustainable methods of disposal.”

You note that national policy is required to drive change: that a circular economy should be at the forefront of this, that chemicals span several policy areas for example, packaging and waste, and these should not be considered in isolation. There is a need for consistency of messages and approaches across the different government departments.

Figure 7: Top 10 themes - What can be done to address the challenge of chemicals in the water environment?



Many respondents call for policy to remain within it or at least align with EU policy post EU exit and that the UK should remain part of [REACH](#)⁶.

There is wide public, non-government organisation (NGO) and industry support to prevent chemical use through source control. You call for the chemical industry, manufacturers and suppliers to take responsibility for the impact of their products, including funding clean up and proving no impact, paying whole costs of a chemical's life and promoting responsible use of their products (for example, Integrated Pest Management (IPM) system and non-herbicidal controls). Solutions proposed include:

- a stronger responsibility on chemical industry, manufacturer and suppliers
- rewarding financial innovation of less harmful products
- implementing a levy on producers to fund environmental protection
- mirroring the Swedish approach of reversed burden of proof, combined with the “substitution principle,” written into Swedish law in 1991; if a safer alternative exists, a company must use it or be subject to penalties
- communicating, cooperating and collaborating more effectively between sectors

⁶ Registration, Evaluation, Authorisation and restriction of Chemicals (<https://www.hse.gov.uk/reach/>)
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Precautionary principle and polluter pays principle

Many support the 'precautionary principle and polluter pays principle' where the burden of proof that the chemicals are not toxic, do not persist in the environment or bio-accumulate should be on manufacturers. Solutions proposed include:

- a 'chemical tax', such as the sugar tax, for dangerous or difficult to treat chemicals
- strengthening legislation to ensure manufacturer and producer takes more responsibility to prove no environmental harm
- making it a legal requirement for private companies to audit their environmental impact and negate it

Challenge society to use less chemicals

You give strong support to challenge society to use less chemicals in the house, in the garden, in medicine or vet medicine, on highways and verges:

"It is better to use less chemicals than it is to find innovative ways of disposing of them."

Some of you also note that businesses should also be challenged in their use of chemicals. Solutions proposed include:

- bans and restrictions on harmful chemicals
- removing availability of harmful chemicals for example, online retailers
- restricting use of householder use of pesticides, limit use to trained professionals
- researching and innovation into less chemical use
- making eco brands more affordable to the public
- businesses to be lobbied to decrease the level of chemicals in the formulation of their products, "all businesses to have a water plan outlining how the chemicals they use affect the water they discharge into"
- a chemicals amnesty national campaign to address stockpiles of chemicals

Education

Many of you support raising awareness and educating the public on the harm chemicals pose to the environment (and human health): "Many consumers simply don't care, but most are just ignorant." Solutions proposed include:

- education and public awareness campaigns to help people make better purchasing and use decisions, and change consumerism
- changes to product labelling

Bans and restrictions

Many of you support bans and restrictions of harmful or polluting chemicals and put a strong focus on household chemicals (including pesticides (garden centres), household cleaners and personal care products) and agricultural chemicals. Solutions proposed include:

- introducing a registration process to assess both environmental and human health
- bans, for example, glyphosate, metaldehyde and product restrictions
- avoiding replacements by more harmful chemicals

One response from industry notes that, rather than banning useful chemicals on the basis of persistency, the emphasis should be on:

“Improving innovation, legislation for controlling risk and enabling improved waste management and recycling options.”

Enforcement

Many ask for tighter regulation and increased punishments, supported with funding for the Environment Agency to deliver this. Solutions proposed include:

- more powerful legislation, for example, by altering the Environmental Permitting Regulations (EPR) to prohibit the emission of priority chemicals
- more funding for the Environment Agency to investigate pollution and enforce regulations properly
- creating a dedicated pollution watchdog
- stronger scrutiny of trade effluent consents, reinstate proper numerical consents, [Best Available Techniques reference documents \(BREFs\)](#) permit reviews
- introducing laws to fix misconnections
- implementing a financially proportionate environmental impact levy to address the damaging impacts of EPR discharges; funds to be used to purchase land or implement schemes to create a nature recovery network

Agriculture and water industries

There are calls for action for the agriculture and water industries to work together. Specific concerns are raised regarding pesticide use. Several responses from the water industry note that the treatment process to remove chemicals results in greater expense and carbon emission for water companies and ultimately the public - ‘end or pipe’ treatment should be seen as a last resort. You also note:

“The research carried out across the water industry has shown limited evidence of such technologies being able to remove all chemicals to the concentrations required to meet environmental quality standards (EQS)”.

Solutions proposed include:

- more engagement, support and training for landowners – for example, catchment partnership events for farmers: “helping farmers to get the balance right is really valuable”
- greater integration of Environment Agency, water companies and Natural England to give farm advice regarding fertiliser and pesticide use and with clear pathways to agri-environment funding
- moving away from or reduced use of pesticides by adopting organic; an integrated pest management system; genetic crop manipulation; use of highly targeted application of agri-chemicals; extended cross-compliance margins to reduce impact of spray drift; and provide wildlife corridors around all agricultural fields
- incentivising payments for green actions - for example, buffer strips, green products or chemical free zones
- encouraging more farmers to sign up to Catchment Sensitive Farming (CSF) and utilising their incentives
- reporting on chemical use as part of ELM and reduce use as an evaluation data tool
- addressing disconnect between Ofwat price capping and what is needed from the water industry to adequately tackle harmful inputs

- requiring water industry to treat all waste water and remove harmful chemical: “the water industry chemical investigation programme (CIP) continues to work to understand the sources of chemicals of concern and research mitigation measures, other than unsustainable end of pipe treatment installations”

Monitoring

Many support the need to monitor and investigate chemical issues more widely. Solutions proposed include:

- increased funding for the Environment Agency
- citizen science or volunteers to help investigate issues, track and identify polluters
- annual qualitative scans of all major waste water treatment works to highlight significant chemicals of concern
- using biological continuous sampling techniques
- adding chemicals to the 'watch list' as they are developed and widen the number of watch list monitoring sites
- considering the effects of mixtures of chemicals
- research into chemicals and their carriers for example, plastic particles and how they behave in the aquatic and marine environments and their impacts
- encouraging better connectivity for example, data sharing between academics, policy makers and regulators and a faster funding mechanism to support research

3.4.2. Consultation question 9

Do you support the Environment Agency's proposed strategic approach to managing chemicals as referenced in the 'chemicals in the water environment' challenge document? If not, what changes would you make?

There were 303 responses to this question. Figure 8 summarises the top 10 themes respondents gave to this question.

You said...

Strategic approach

There is general support for the strategic approach. Some public and NGO respondents said that it should be stronger: “Some of the targets seem to be very unambitious”.

There is widespread criticism that the strategy summarises the problem, but contains few specific remedies or examples: “too many words, not enough support for real action”. “More detail is needed to clarify how this strategy will be effectively delivered and enforced.”

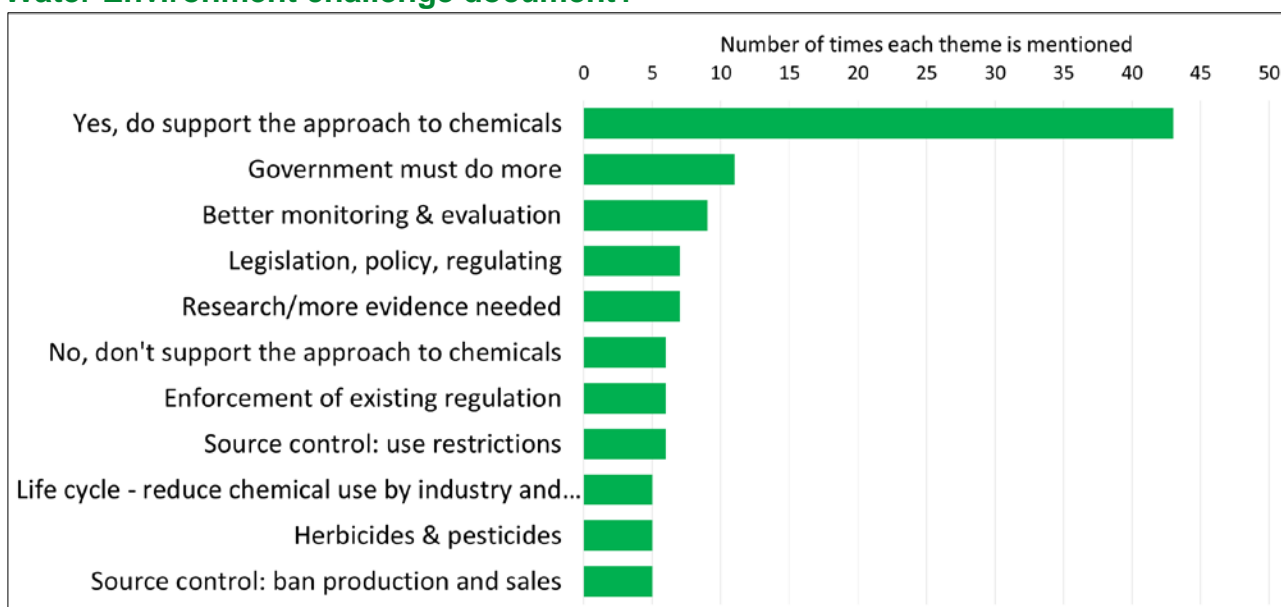
You said that more resource will be needed to deliver the strategy. One response notes that the strategy “resembles an environmental activist's attack on the chemical industry”

Suggested changes include:

- Ensuring that issues recognised within a catchment should be addressed by all water users within the catchment collectively to seek and support actions.
- Looking for opportunities to assess and manage risks collectively for particular chemical groups, whose members share common effects such as endocrine disruption, or common sources such as plasticisers.

- Having a forward looking strategy, rather than one that focuses on historical, legacy, substances in order to focus on early warning systems for new and emerging chemicals.
- Ensuring the strategy adopts an approach which is dynamic and responsive to scientific developments and potential emerging chemical issues.
- Ensuring the strategy delivers holistically - that is, without too much single issue focus" 'sustainable and cost beneficial' is key here: we should not be advocating solutions that solve one issue (water quality) at the expense of other issues for example, climate change by building energy and chemical intensive processes on our works."
- Underpinning the strategy with a solid and evolving evidence base - "regulatory policy decisions should be impartial evidence-based fully informed by thorough scientific assessments focusing on adverse effects, looking at both risks and benefits, with knowledge gaps filled with robust science."

Figure 8: Top 10 themes - Do you support the Environment Agency's proposed strategic approach to managing chemicals as referenced in the Chemicals in the Water Environment challenge document?



Other comments include:

- It is "critical to understand the source and pathway of chemicals into the environment in order to target the most cost-effective and cost-beneficial means for controlling or reducing chemicals of concern."
- Requiring a sector specific approach.
- Addressing storm sewer overflows.
- Undertaking a proper cost-benefit assessment regarding any 'no regrets' action.
- Not diluting current standards and setting stronger limits for pesticides.
- Accounting for chemical mixture occurrence and effect in monitoring and risk assessment.
- Applying the 'precautionary principle'; however, "it is key to recognise that continued collaborative research and sound science (through programmes such as the chemical

investigation programme) are necessary to identify chemicals of national, local or emerging concern and not to overly rely on the 'precautionary principle.'"

- Making legislation stronger; using laws not voluntary codes or initiatives.
- Having stronger penalties and fines for pollution.
- Using financial incentives to reward (farmers) who use less chemicals.
- Having more action from the water and agricultural industries: "any water company investment, whether precautionary or reactive, needs to be affordable and acceptable to current customers."
- Educating the public to enable them to make informed decision re their use of chemicals including medicines and vet medicines.
- Using intervention at the early stages of the pollution pathway to reduce discharges; reliance on end-of-pipe treatment introduces the risk of accumulating pollutants in sewage treatment sludge.
- Ensuring any actions to managing chemicals are risk and not hazard-based.
- Increasing Environment Agency sampling; currently it "will not be sufficient in the face of population growth, climate change and increased chemical use."

3.4.3. Consultation question 10

What balance do you think is needed between current chemical use, investing in end-of-pipe waste water treatment options and modifying consumer use and behaviour?

There were 363 responses to this question. Figure 9 summarises the top 10 themes respondents gave to this question.

You told us...

You interpret this question in one of two ways:

As a choice between 2 options (control at source via a reduction in the production of chemicals and consumer use versus end of pipe treatment).

Or, as a choice between 3 options (control via a reduction in the production of chemicals, a reduction in consumer use or end of pipe treatment).

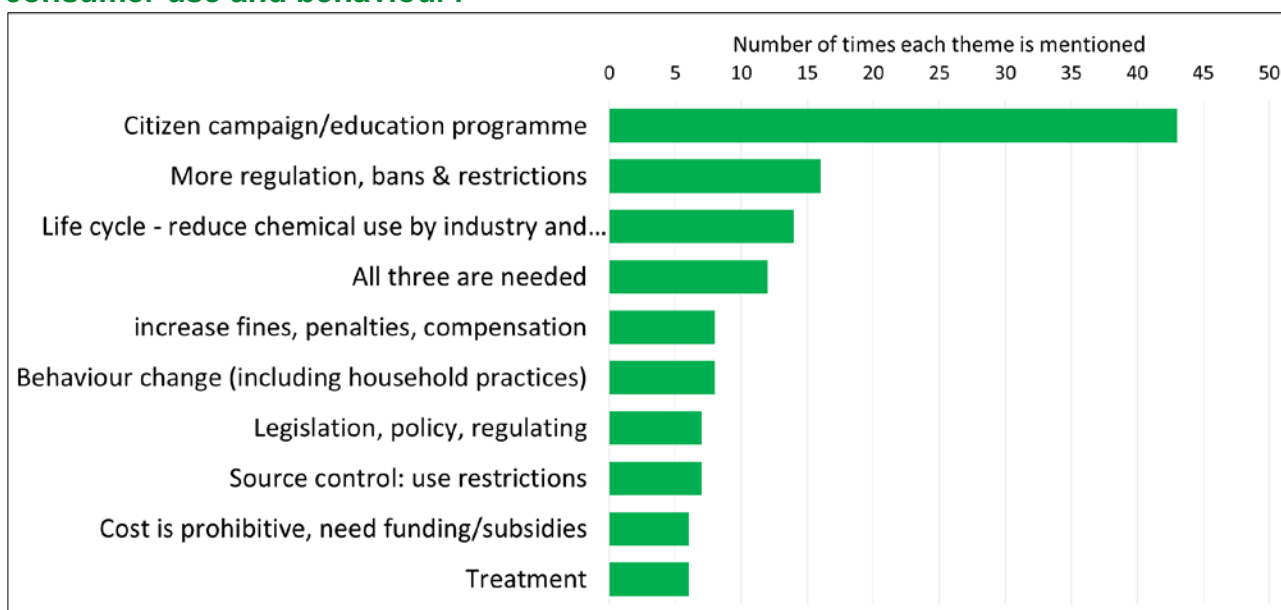
While this made analysis of responses more difficult, there is overwhelming support for the need for all options. Many responses note that the balance of these options will differ between chemicals:

- "The appropriate balance of measures may differ between substances, between types of installation activity and use and potentially between locations in order to reflect technical feasibility, cost effectiveness and affordability."
- "While the priority is to reduce emissions at source, end-of-pipe waste water treatment options will prove far more economic for some compounds and are also needed to address emissions from previous uses of chemicals, such as banned flame-retardant chemicals that were used in furniture."
- "It would be over-simplistic to suggest one single approach is acceptable for all chemicals. The approach to control needs to be informed by an assessment of the

economic and social benefits of a chemical, the risk it poses to the environment and water users (including for public water supply) as well as its treatability.”

- “Customer behaviour change takes a long time to deliver benefits, yet as outlined in the previous questions, much more awareness is needed. Where it is cost-beneficial to do so, and where the technology exists, end-of-pipe waste water treatment options may be the most suitable option. Where this is not the case, it is likely that it will be more appropriate to extend the producer responsibility and target manufacturer production of these products.”

Figure 9: Top 10 themes - What balance do you think is needed between current chemical use, investing in end of pipe waste water treatment options and modifying consumer use and behaviour?



Where a preference is stated, you give overwhelming support for the control of chemicals at source while recognising that end of pipe treatment is also needed. There is limited support for end of pipe treatment as the primary option:

“End of pipe is last resort and should only ever be seen as such.”

Several responses, particularly from the water industry, note that end of pipe treatment may not be effective and comes with both high financial costs and high carbon footprint.

Many of you note that there is no single solution and a co-ordinated, multi-faceted approach will be required:

“To develop a one-size-fits-all solution would be unhelpful and would not deliver the desired outcomes of an improved water environment”. “Modifying consumer behaviour plays a role, as many local consumers are unaware of the cumulative impact that their chemical use can have on local ecosystems.”

Some of you suggest that less harmful chemicals should be used in the manufacture of new products and that more natural processes should be utilised. This should be incentivised with government awards or competitions for green design. Manufacturing should take the lead here, not wait for consumer pressure to drive it.

Achieving the right balance between these measures will not be straightforward as they cannot be equal, nor should they be the same for each substance since societal benefits

need to be considered alongside protection of the water environment and human health. To enable this to be effectively implemented, it is suggested that the Environment Agency (and other policy makers) take account of the 'innovation principle' alongside other environmental principles when making policy decisions in this respect". Other solutions proposed include:

- "Before a chemical is used in a product or process chemical users and manufacturers should assess and take into account a chemical's route, or potential route, to the environment and its environmental impacts, whilst in use, on disposal or in secondary materials. Given current moves towards a more circular economy, routes to environment must include all potential reuse and recycling, in addition to primary use, disposal and associated waste water".
- "We live in a fast moving technological times but "cleaning up" water remains the largest cost faced by public water supply companies. If they have to remove a chemical and the source can identified then the source should be contributing to the cleaning process".
- "Chemical treatment is a very complex science which needs to be better understood before adoption, and which also needs to take account of the overall environmental benefits versus the increased carbon footprint which would be associated with costly, energy-consuming treatment solutions."

3.5. Challenge 3: Invasive non-native species

The Challenges and Choices consultation document summarised how in England, over 70% of surface waters are at risk of deterioration because of invasive non-native species (INNS). They cost an estimated £1.3 billion every year. We all need to:

- focus on prevention and early intervention as the best ways of reducing the impact and spread of invasive non-native species
- reduce the impacts of climate change and other pressures (such as pollution and water abstraction) to help rivers, lakes and seas cope with the impacts of established invasive non-native species

The way all of us treat water today will shape all our futures. For further information on this challenge, see the [invasive non-native species challenge](#) document.

3.5.1. Consultation questions 11, 12 and 13

What can be done to address invasive non-native species?

And

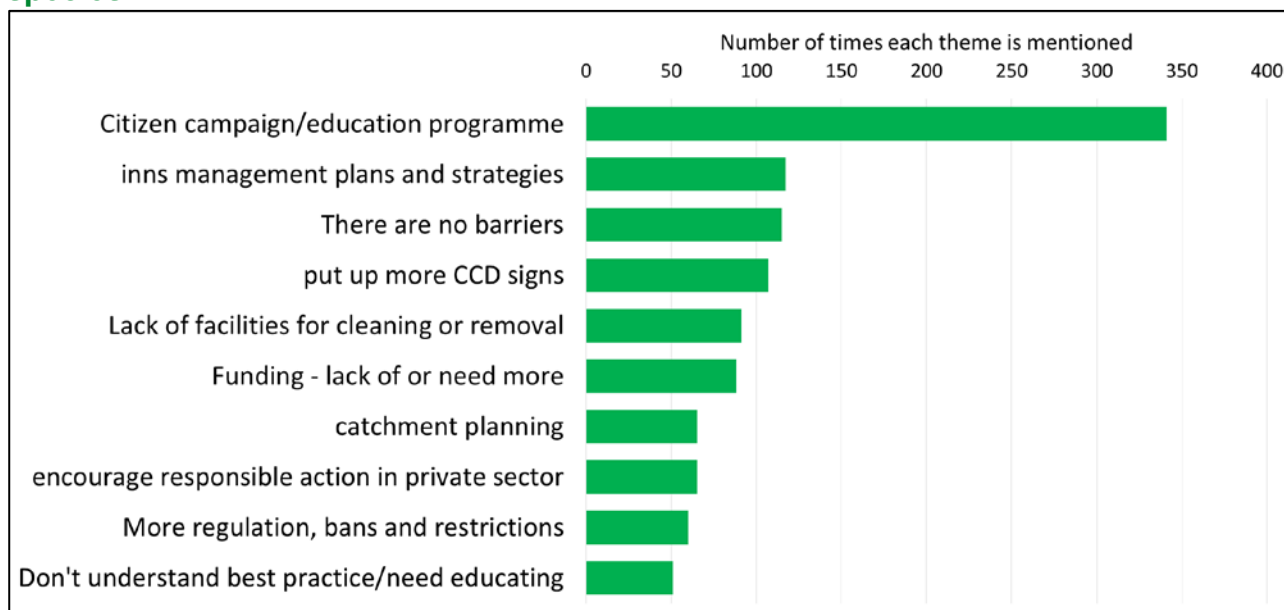
How would you promote 'Check, Clean, Dry' to all recreational users of water, including those who are not in clubs or attend events?

And

Are there any barriers stopping you adopting good biosecurity when you are in or near water?

There were 413 responses to question 11, 325 responses to question 12, and 303 responses to question 13. Figure 10 summarises the top 10 themes people gave to the questions 11 and 12 combined.

Figure 10: Top 10 themes to questions 11, 12 and 13 combined - Invasive non-native species



You told us...

Managing INNS

You said that clearer plans were needed for national, regional and local management of INNS and that existing plans should be better promoted and shared. Many of you said you already use, and would like to do more with RIMPs (regional invasive species management plans) and other regional strategies and plans (such as the North East invasive non-native species strategy and action plan). Many value the support of the [GB non-native species secretariat](#) and the information on their website.

You want to be bolder and more ambitious in eradication programmes, but also to be measured in choosing the most appropriate species to eradicate, control or leave.

Many refer to and support the findings of the Environmental Audit Committee's inquiry into INNS, which emphasises the potential of volunteers and local groups to deliver INNS management and eradication with an increase in funding.

A common theme you highlight is the need for more funding, both centrally, for the GB non-native species secretariat, and locally. Local action groups, local wildlife and angling groups and other partnerships are described as being able to deliver on the ground action, with formal catchment partnerships frequently mentioned as co-ordinators. Many said that funding and strategies need to be long-term and consistent, and that local organisations have access to and can manage large groups of volunteers, who want to help.

You raise some challenges to the ways in which signal crayfish trapping is regulated. Many support the use and development of biological control methods for INNS.

A number said that the impacts of INNS and the cost-benefits of controlling INNS need to be better integrated into river basin planning, objective setting and WFD classification. In addition, INNS control needs to be delivered at a catchment level, and will only be successful if all land owners are involved. Some express frustration at effort wasted on control by local groups when upstream populations of INNS recolonised the sites.

Water companies said that they are using the water industry water industry national environment programme (WINEP) to develop biosecurity and INNS plans, and give examples of research, partnership and catchment working.

Respondents want clearer ways of reporting INNS records, and to be able to share them to inform management plans and strategies. Many wanted to be able to record control of INNS to help co-ordinate catchment management. Some of you want more research into the creation of markets for invasive species to help with their control.

Enforcement and regulation

Across the three questions, the need for enforcement of existing regulation, and the need for more regulation are raised

Some of you said that biosecurity at borders and regulations around imports should be stricter, and the example of New Zealand's approach to regulating their borders and biosecurity is given as something to follow.

A number said that there should be more regulation and enforcement around the sale of exotic species, and that garden centres and pet shops should take more responsibility for the species they sell and the advice they give customers.

Many discuss the potential benefits of licence conditions requiring biosecurity for anglers, boaters and other recreational users of water.

How to promote 'check clean dry'

Two thirds of respondents highlight the need for more campaigns, advertising and education, and the funding required to do this. Social media, television and newspaper advertising, and more targeted awareness raising among particular interest groups, particularly using social media to do this are proposed.

Many of you give examples of how you and your organisations have already contributed and publicised the 'check, clean, dry' campaign. Some offer help and support in promoting 'check, clean, dry' through their networks.

Some state the need for more signage at public access points, with suggestions on how to make signs more relevant and effective.

Respondents give examples of, and wanted more inclusion of 'check, clean, dry' in training and induction for organisations, industries, contractors and consultants. Many want more responsible action from the private sector, suggesting manufacturers add 'check, clean, dry' labels to their recreational equipment, from boots and coats to boats and nets.

A number thought that there were opportunities to add 'check, clean, dry' information to licences and membership cards.

Barriers to biosecurity

Many respondents felt that there were no personal or organisational barriers to biosecurity. Many are aware of what to do and where and give examples of the application of biosecurity at public and sporting events.

Some of you highlight the lack of wash down facilities at access points. Particular issues raised are:

- access to clean water
- access to hot water
- disposal of waste
- difficulty in cleaning larger equipment such as boats, vehicles, pipes and pumps
- funding for facilities
- power supply for pressure washers

Some of you who visited multiple sites within a day found the restricting factor was time, both to wash equipment and to dry it. Having multiple sets of equipment is costly, and required access to a large drying area.

For the public, it is felt that a lack of awareness prevents biosecurity. You suggest good signage, education and awareness campaigns as solutions.

Many are concerned that boat traffic moves INNS around and that could make other users feel that it is not worth applying biosecurity.

Climate change

You said that climate change will have an impact on the invasiveness of many INNS, and that research and early planning is needed to deal with those species. Some felt that change is inevitable and that there is some benefit to leaving INNS to spread.

Culture change and coronavirus impacts

Some express a concern that most people do not care about the environment, and that the cultural change needed to prevent the introduction and spread of INNS would be difficult. Many note that the biosecurity measures required by all to slow the spread of coronavirus could help in future messaging around the spread of INNS and other pests and diseases. The public health messaging and advertising throughout the pandemic demonstrated what could be done when government considers it important enough.

Native species, habitats and other pressures

You said that it is important to protect native species when they are directly threatened by INNS, for example by translocating species to 'ark' sites (isolated, self-contained site). Many also said that restoring habitats after INNS eradication and control is important.

3.6. Challenge 4: Physical modifications

The Challenges and Choices consultation documents summarised how for thousands of years of human activity has left a legacy of physical modifications in our landscapes. Their impacts are the cause of over 40% of our waters are not achieving their ecological objectives. Some physical modifications are to protect us from flooding, supply the water we need to drink and to use our waterways for transport.

Despite significant investment the overall level of impact on ecological quality from physical modification remains unchanged; it may even be increasing. Without a radical rethink of how we all respond to the changes caused by climate change and increased urbanisation, this situation will worsen. We all need to:

- move to a primary assumption against modifying our river systems
- work with, rather than against, natural processes to ensure waters are more resilient to flood, erosion and drought
- change how we plan and coordinate to deliver this
- take advantage of new funding mechanisms and the opportunities that exist within planning policy to establish more natural river systems

For further information on this challenge see the [physical modifications challenge](#) document.

3.6.1. Consultation questions 14 and 15

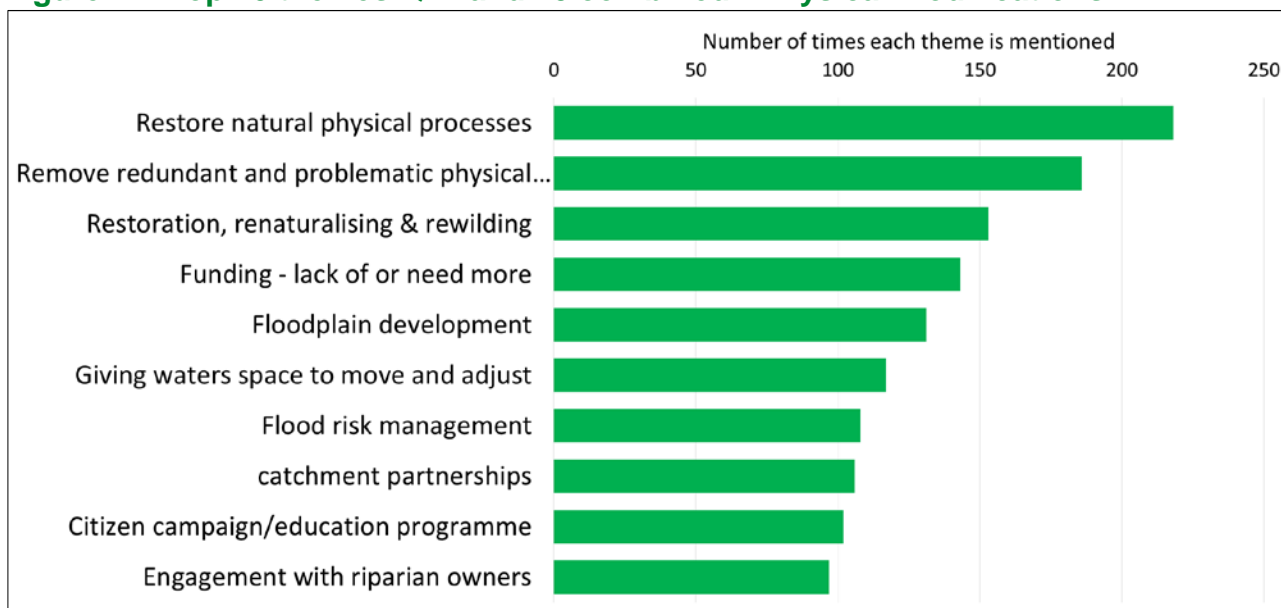
What can be done to address the physical modification of our rivers and coasts?

And

Giving more space for rivers and coasts to move and adjust naturally will regenerate habitat, improve wildlife and help us adapt to climate change. What can you and others do to support these changes?

There were 433 responses to question 14 and 400 responses to question 15. Figure 11 summarises the top 10 themes people gave to questions 14 and 15 combined.

Figure 11: Top 10 themes Q14 and 15 combined - Physical modifications



You told us...

Many support the need to address the pressures from physical modifications, highlighting the need to remove redundant modifications, re-connecting rivers to their floodplains and allowing natural physical processes to recover. Many also said that new developments need to work with nature wherever possible and provide a range of benefits.

You recognise the need for infrastructure and modifications where appropriate (for example, for flood risk management, navigation and other societal needs) but equally want to see a much greater targeting of efforts to remove redundant modifications and recover lost natural functioning. There is strong support for working with nature, with re-wilding and restoration across catchments seen as very important. Many highlight the importance of riparian buffer strips and the benefits of tree planting in general, with the introduction of beaver and other natural approaches very important to many. Improving physical habitat and the benefits for wildlife is a strong message.

The need to understand the risks and potential negative impacts from undertaking action is also a key theme. The importance of good data and evidence is important, in addition to the correct application of this information.

Why is this important to you?

You are very aware that these changes are needed to support adaptation to the pressures of climate change and its impact on the water environment, and are equally aware of the pressing needs to tackle wildlife and biodiversity. The role of a more naturally functioning water environment is instrumental in this. Many refer to natural flood management and how it can work with more traditional approaches to manage flood risk and climate change. Many appreciate that multiple benefits can be achieved by working with natural processes way and highlight that this challenge is relevant for inland river catchments, at the coast and in estuaries.

“A functional floodplain has the capacity to provide a multitude of environmental services from flood protection to water quality enhancement. More must be done to invest in our river systems and to support work to restore functional floodplains.”

Many highlight the importance from a societal perspective, that action should be shared and fair, that working together is important, and that costs and benefits should be equitable. Health and wellbeing were also indicated as important to many, and how nature and natural landscapes are important in this respect.

How can this be achieved?

Many of you would like to see more effort put towards tackling this issue - by taking a shared approach, driven by community, businesses as well as government. Key points include:

- greater co-ordination across catchments
- taking a tougher stance on permitting and enforcement
- considering how funding can be levered from a number of different sources (private and public)

You also identify where changes within government and Environment Agency roles and duties could be improved. A greater focus on spatial planning (urban and rural settings) is identified as a key area to improve. It is suggested that there should be particular controls on floodplain development, but also how rural communities and landowners play a part in addressing the physical modification pressures too. This is particularly pertinent for the providing space for waters to move and adjust, floodplain re-connection and restoring natural processes.

Funding

Many of you highlight funding as a key issue: “cost and funding is the largest barrier,” with landowner permission following closely behind. This also applied to funding specific projects to remove redundant structures; you want to see financial support at all project stages. In particular there is a call to:

“Allocate funding to enable assessment to be done to identify physical structures that can be removed or modified to improve water quality and habitat, without increasing flood risk.”

You also highlight the need for greater financial support from government and from private sectors, including alternative funding sources. You mention:

- payment for ecosystem services
- beneficiary pays
- crowd funding
- environmental tourist tax

- polluter pays
- developer pays
- levy from land profits

A partnership approach

Many of you want to see greater efforts placed on education and awareness of the issues, understanding the how physical modifications impact the environment, how they can be managed and what benefits they offer society. There is strong support for greater partnership working and collaboration across catchments. You state that improved engagement with riparian landowners is required, as is engagement with local communities and groups. Citizen campaigns and education programmes could help, as well as good evidence about the challenges and how to address them.

Respondents also highlight the need for effective catchment and coastal planning to focus action and investment towards physical modification pressures. This would help enable clear alignment of action and investment. Some suggestions include:

- more training, networking and information sharing
- more 'shop window' sites, to help landowners judge for themselves the merits of alternative land use
- the need to raise awareness, and provide education among planners and developers about the impacts of physical modifications

Regulation and planning

You tell us that the role of the Environment Agency and government is important in addressing this issue, but feel that some change is needed, including more use of regulatory powers and duties. You told us that improving enforcement would help stop illegal works. Environment Agency permitting and licensing process could also be made much simpler:

“The consenting process to undertake such work is lengthy, costly and off-putting for us, our partners and stakeholders and landowners.”

You also want to see stronger leadership by the Environment Agency and other government bodies:

“The Environment Agency, and other government bodies, need to take the lead on this and develop policies, guidance and generate local support...”

Evidence and data is another area for the Environment Agency to improve, including information to help inform both strategic planning and policy, but also operational activities, capital spend and maintenance. You told us that evidence to support action and investment (for example, setting targets and water body objectives) is important. But you also said a citizen science approach with better sharing of data across sectors and organisations is also really important.

Respondents consistently mention the need for greater control over floodplain development. This is a key concern, recognising the costs required to protect developments, but also acknowledging that development on floodplains removes and reduces the space available for natural processes to work.

“Stop building on ancient floodplains these are nature’s way of managing the environment.”

Several highlight this as a growing concern particularly in relation to changing climate and the biodiversity crisis – where floodplain habitat is very important feature to protect and

restore. Working with local authorities and other regulators and developers is commonly referenced as an important element of the wider spatial planning issue, but also acknowledging the pressures from a growing population and broader societal requirements.

Flood risk management

Many provide strong support for nature based solutions and their role in flood risk and coastal erosion management. Natural flood management is frequently mentioned as a positive means of protecting people and places. In particular you mention the benefits of re-connecting floodplains, riparian buffer strips and woodland management in this respect – helping to slow the flow of water and providing space for natural river, coastal and estuarine adjustment. Many are keen to see a targeted approach used in conjunction with more traditional (engineered) methods where appropriate:

“There is ample evidence is that rivers with natural meanders and the ability to flood over adjoining land when necessary, offer much better flood defence than those with straightened and deepened channels.”

Land management

You mention the importance of wider landscape management and the value of looking at catchments as an entire system – all elements working together. Soil management is frequently mentioned, particularly its role in controlling sedimentation of rivers and estuaries and the resultant need for dredging. Many outline the important role of rural landowners in managing physical modification pressures, commonly citing land management changes needed to make space for water, allow floodplain reconnection and changes to land use (for example woodland planting). Developing the right incentives and payments for ecosystem services and other voluntary, partnership working were regularly mentioned, with frequent reference to ELM.

The water industry is mentioned as being an important part of land management and addressing the physical modification challenge, using experience in delivering restoration and land management improvements. Funding through the water industry environment programme (WINEP) is seen by some as instrumental in delivering further improvements.

3.7. Challenge 5: Plastics pollution

The Challenges and Choices consultation documents summarised how the use of plastics needs to become sustainable. Plastic has a place in the world, but that place is not in rivers, seas, or lakes; or on beaches or the land. Many are concerned about plastic pollution and the largely unknown consequences of micro-plastics in soils, water and when eaten or breathed in by ourselves and other animals. We all need to:

- understand the true impact of plastics on the environment, on the food chain, on our health and wildlife
- use less plastic in our day to day lives and in the production of goods and services

For further information on this challenge of see the [plastics pollution](#) challenge document.

3.7.1. Consultation questions 16 and 17

What can be done to address plastics pollution in the water environment?

And

What actions should the Environment Agency take to reduce plastic pollution?

There are 438 responses to question 16 and 386 to question 17. Figure 12 and Figure 13 summarise the top 10 themes people gave to questions 16 and 17.

You told us...

Priority for plastics pollution

Protecting England's water is a priority and you want to see greater political and regulatory commitment to reducing plastic pollution. Many of you want to see the Environment Agency make this a priority and be funded to take action. You also want to see government do more; taking action on new legislation, implementing policy and increasing funding in this area.

Legislative changes and promotion of a circular economy for plastics

You would like to see legislative changes to make this possible including bringing the key initiatives within the 'resources and waste strategy for England', notably a deposit return scheme, 'extended producer responsibility' and specifying a single set of consistently collected plastic items to be recycled. You are also keen to see the introduction of the proposed plastic tax creating a greater market pull to move plastic up the waste hierarchy and stop leakage into the environment. A few of you suggest setting up a separate new body, with responsibility for creating a circular economy for plastics and reducing plastic pollution.

Figure 12: Top 10 themes - What can be done to address plastics pollution in the water environment?

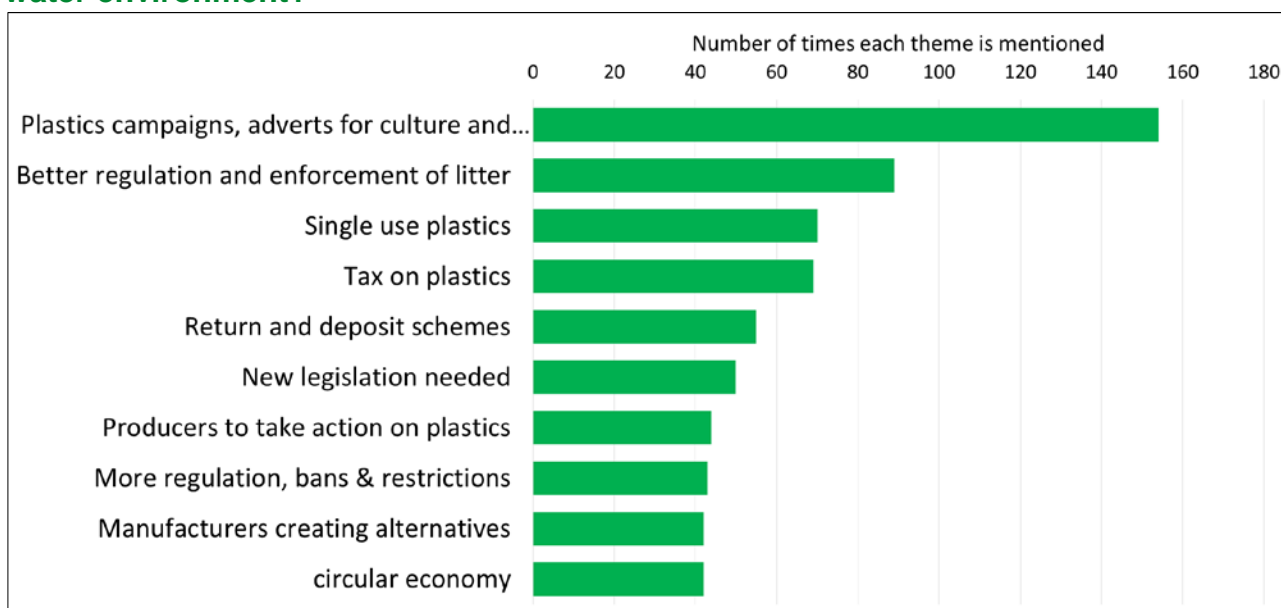
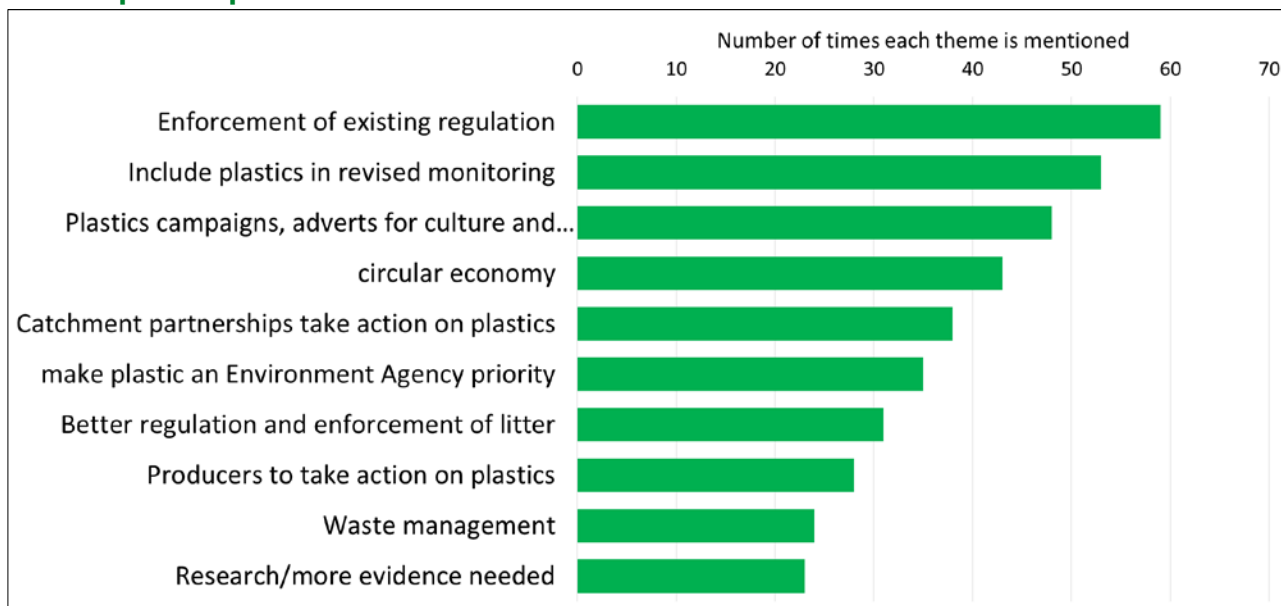


Figure 13: Top 10 themes - What actions should the Environment Agency take to reduce plastic pollution?



Source control

Prevention at source and developing a more circular economy for plastics is a key theme, as well as tackling micro-plastic pollution at source. You strongly advocate the ‘polluter pays’ principle and expect manufacturers and producers to pay for the true recycling, disposal and clean-up costs particularly of plastic packaging. Some suggest that supermarkets take action and that this is complemented by campaigns raising consumer awareness and driving behaviour changes.

Research and evidence

You also stress that there is an urgent need to gather better evidence and have research which better informs policy, regulatory and voluntary actions to reduce plastic pollution. Many of you comment that there is a need to include micro-plastics in monitoring regimes, enabling baseline levels to be set, and greater understanding of the scale and impact of plastic pollution in watercourses.

Collaboration and catchment partnerships

Another widespread comment is the need for more collaboration with others who could help with both monitoring and clean up interventions, like local rivers trusts, wildlife trusts, catchment partnerships, environmental groups and farmers.

Regulatory role

You state the need for the Environment Agency to use its regulatory role to drive a more circular economy for plastics and avoid any unintentional barriers, as well as ensuring it imposes regulatory controls to prevent micro-plastics escaping into the environment.

The most common issues and solutions raised, both by individuals and organisations, are:

Priority for plastics pollution

- make plastics a priority for the Environment Agency: the Agency needs to take action on the plastics used in flood defence assets and ban single use plastics from its estate and supply chains

- government to increase funding and their commitment for action to reduce plastic pollution

Legislative changes and promotion of a circular economy for plastics

- the Environment Agency needs to support and work closely with government to drive a more circular economy approach to plastics
- government, manufacturers, supermarkets and consumers to reduce single use plastics and promote #refill and drinking water fountains to reduce single use plastic water bottles
- work collaboratively with government and local authorities to improve the recycling of plastic waste (including the quality) and ensure that more plastic materials are designed to be 100% recyclable
- new legislation and implementation of the various policy changes in the 'resources and waste' Strategy
- government to bring in the proposed plastic tax

Research and evidence

- better research and evidence to inform interventions and understand impact of pollution on ecosystems
- include micro-plastics in revised monitoring plans

Source control

- implement source control and capture mechanisms upstream to prevent the loss of micro-plastics into the environment, including washing machine filters, measures to prevent losses from 3G artificial pitches and pellet loss from industries

Collaboration and catchment partnerships

- work collaboratively with others with existing campaigns, through catchment partnerships and with business on various education and raising awareness initiatives
- support and help fund volunteer litter picks
- support and enable catchment partnerships to collaborate and fund actions at local level (water environment investment fund criteria to include plastic pollution)
- improved capture, such as improved screens in watercourses and use of other devices in harbours or on surface water outfalls
- better regulation and enforcement of litter

Regulatory role

- include control measures to prevent plastic pollution in our regulation and permits
- advise farmers on better disposal and recycling plastic waste
- invoke the 'polluter pays principle' and take stronger enforcement action for plastic pollution, such as for plastic pellet loss incidents from industry
- support innovation, biodegradable and other alternative products and processes, such as chemical recycling, particularly from a regulatory perspective
- better designed trash screens on surface water outfalls, support for 'yellow fish' campaigns, water sensitive urban design and SuDS to reduce micro-plastics from road and tyre wear entering watercourses

- explore filtration and other methods to reduce release of micro-plastics from waste water treatment and sludge spread to land
- stop water companies using and losing plastic bio-beads
- continue collaboration to reduce fly-tipping, tackle waste crime and prevent plastic waste exports

3.8. Challenge 6: Pollution from abandoned mines

The Challenges and Choices consultation documents summarised how society has benefited from mining metals and coal for centuries. But now there is a legacy of water pollution from abandoned mines. Abandoned mines pollute over 3% of rivers, harm wildlife and impact the economy. About half the metals found in rivers today, including cadmium, lead and zinc, come from abandoned mines – as much as from all industrial activities.

Legally, nobody can be held responsible for permitting ongoing pollution from mines abandoned before 2000 therefore the government has to intervene. The Coal Authority treats 79 billion litres of mine water each year at 47 treatment schemes in England. 44 coal mine water treatment schemes protect drinking water supplies for 500,000 people and improve 250km of rivers, stopping 900 tonnes of iron and other substances each year from causing pollution. The ambition is to treat more pollution from abandoned metal mines is at risk due to increasing construction and operating costs, and pressures on government funding. We all need to:

- work with others to innovate and develop new sustainable solutions that are affordable, and show they are a good use of public and private money

For further information on this challenge, see the [pollution from abandoned mines](#) challenge document.

3.8.1. Consultation question 18

What can be done to address pollution from abandoned mines?

There were 303 responses to this question. Figure 14 summarises the top 10 themes people gave to question 18.

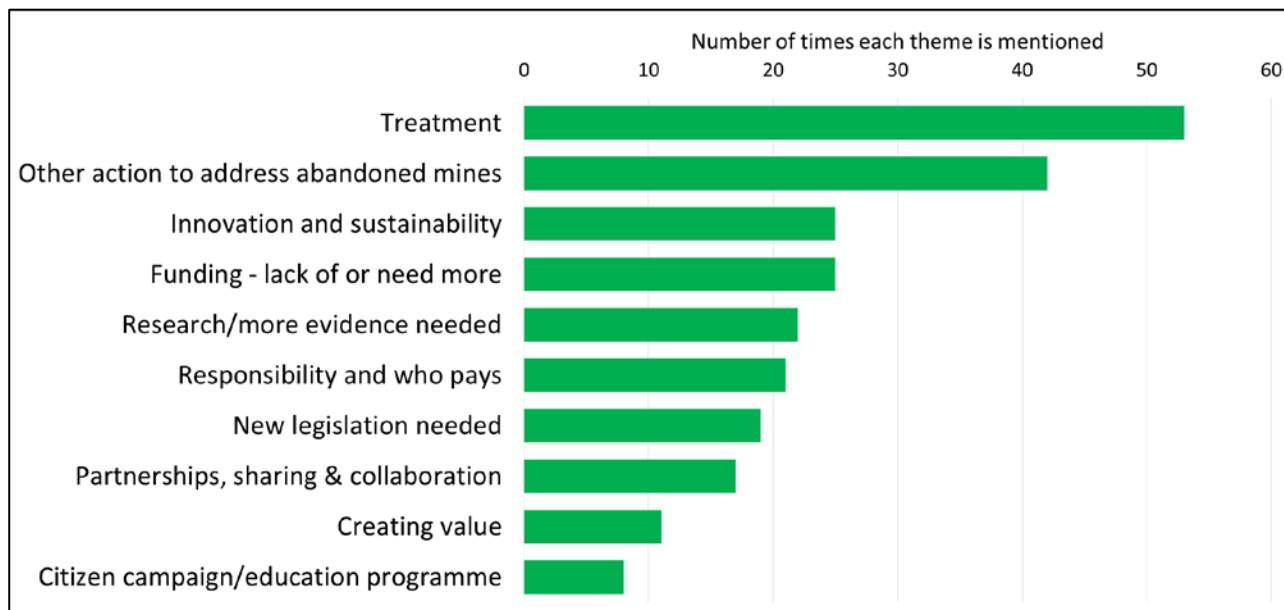
You told us...

Protecting England's water is a priority and you want to see greater political commitment to this goal. You strongly advocate the 'polluter pays' principle and expect that former operators are made to pay for repairing the damage they caused, regardless of when the mines were abandoned. Some suggest that former or current landowners should be liable even if they didn't cause the pollution or that current mining operators be made to contribute through taxes on mining profits.

You would like legislative change to make this possible but many recognise the challenges involved in doing this and the necessity for continued, and preferably increased, government funding for this work. Some of you want to create a new body with responsibility for dealing with pollution from abandoned mines.

You recognise the added value that interventions such as reed beds can provide by creating new habitat for wildlife, and the need for continued innovation, research and development in clean-up techniques. You highlight the potential to recover resources such as metals from treatment sludges or heat from mine water to pay for treatment costs.

Figure 14: Top 10 themes - What can be done to address pollution from abandoned mines?



Many of you comment on the need for collaboration with others who could help with both monitoring and clean up interventions, such as local rivers trusts, wildlife groups, catchment partnerships, environmental groups and farmers.

The most common issues raised, both by individuals and organisations are:

- former operators or owners should be made to pay regardless of when the mines were abandoned
- difficulty in finding those responsible for pollution caused many years ago
- the need for continued, increased funding from government and the private sector - perhaps exploring getting existing mining companies to contribute
- the need for more research and evidence on impact on rivers and coastal areas
- the need for cost-effective innovative solutions with potential to generate income to offset the operating costs such as recovery of metals or heat energy from the mine water
- working with academia and international experts to address the issues
- lack of public awareness – education gap, could encourage citizen science to raise awareness
- more collaboration between non-government organisations (NGOs), local community, Environment Agency and Coal Authority
- potential need for a new agency or body specifically to deal with pollution from abandoned mines
- potential collaboration with water companies to co-treat effluents

3.9. Challenge 7: Pollution from agriculture and rural areas

The Challenges and Choices consultation documents summarised how the current way we manage the land and use fertilisers and pesticides is a major reason why 40% of our rivers and groundwater are polluted. Farming and rural land use is ever-changing. The farming industry faces big challenges as it adapts to future political reality and to climate change. We all need to think carefully about how fertilisers and pesticides are used in the future in order to improve the health of soil and water. We all also need to look at how the management of livestock affects the land and water.

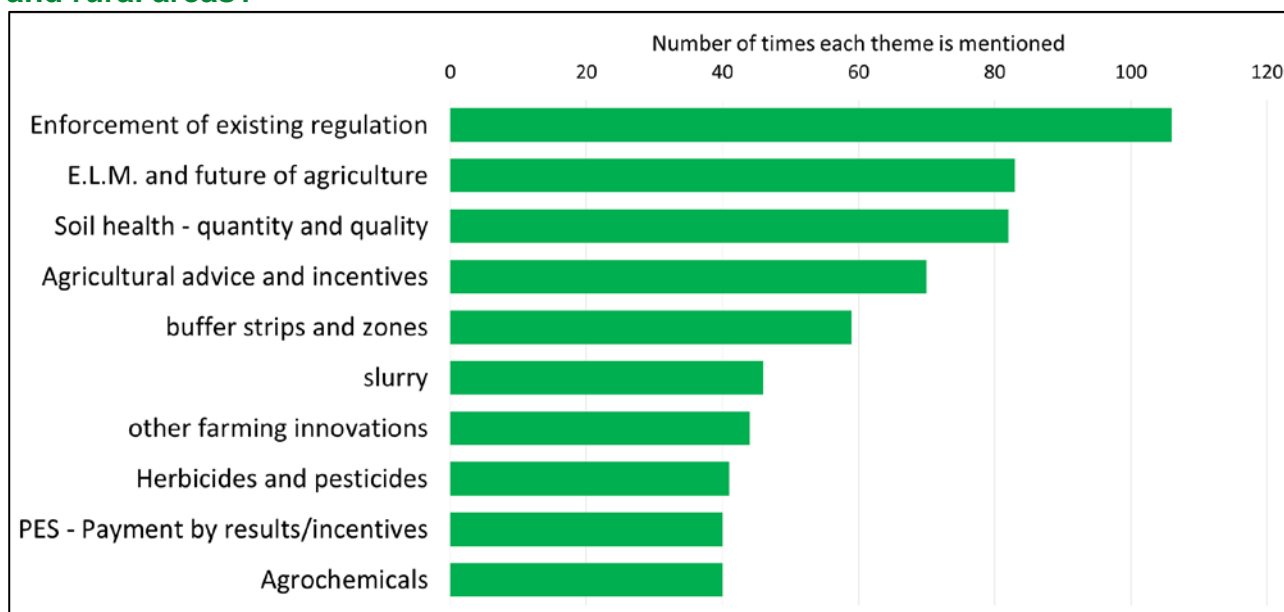
For further information on this challenge, see the [pollution from agriculture and rural areas](#) challenge document.

3.9.1. Consultation question 19

What can be done to address pollution from agriculture and rural areas?

There were 443 responses to this question. Figure 15 summarises the top 10 themes people gave to question 19.

Figure 15: Top 10 themes - What can be done to address pollution from agriculture and rural areas?



You told us...

Environmental Land Management (ELM)

Many of you made reference to removing area-based payments and production payments, in line with public money for public goods. Many suggest landowners should instead be paid for delivering environmental outcomes. Furthermore, many of you said that a cap on payments should be introduced, or a cessation of payments to already wealthy landowners. Similarly, many of you said that rather than land managers being paid to carry out basic environmental management, the regulatory baseline should be made higher.

Some suggest barriers seen in countryside stewardship schemes should be removed in ELM to encourage uptake of good environmental practices. ELM should reward farmers for providing ecosystem services, including good water quality, as well as food provision.

Farmers can be dissuaded from joining schemes by the potential for penalties and fines which the NFU views as disproportionate. Environmental Stewardship saw 70% of farmland under agreements, yet current policy has seen this fall. At least part of the scheme should be accessible to all farmers and offer advisors.

ELM should maintain the existing provision of benefits as well as enhancing productivity alongside the water environment. Any changes within ELM should be based on clear evidence and have the financial support to meet specific objectives. Farmers still deliver on a voluntary basis under schemes including Championing the Farmed Environment (CFE), Voluntary Initiative and 'Tried and Tested', and this should be recognised.

The National Farmers Union (NFU) state that ELM should be open to all farmers and aim to bring as many as possible on board. The 'sustainable food and farming scheme', suggested by the NFU, Linking Environment and Farming (LEAF) and the Country Land and Business Association (CLA), could form the basis of a progressive ELM scheme.

The NFU also suggests that a new and effective 'making space for water' type option should be a high priority, enabling accelerated self-restoration of rivers in accordance with the ambitions in the physical modifications consultation document.

Better on-farm management should be utilised to reduce direct abstraction. Reservoirs, aquifers and irrigation technology could all contribute to this as part of ELM. Well-connected wet habitats should be more heavily focussed on too, to support both water quality and biodiversity. Many options can contribute to both, such as retention ponds and ditches.

Some respondents express concern about the short term nature of stewardship schemes and potential for loss of habitat once they finish. ELM should offer farmers longer term security. Long term security of funding is imperative where significant changes to land use are being proposed. This would secure environmental benefits, and greater buy-in from the farming community. Catchment based working and landscape-scale work should also be undertaken on a long term basis with guaranteed funding.

Funding for environmental organisations to purchase land with stewardship money is proposed; with the benefits of rural tourism alongside biodiversity and reduced pollution. Rewilding should be supported as part of this, and could be carried out alongside extensive farming.

Many said that natural flood management should form a core part of ELM and the approach to tackling water quality issues in the agri-sector. Natural flood management is increasingly seen as an effective method of delivering multiple benefits across the sector. It should take a broad approach, including woodland creation, removal of artificial structures and floodplain attenuation. This should be accompanied by ongoing monitoring, evaluation and financial support. ELM should be weighted to deliver water benefits.

Some state that the 'keeping rivers cool' project should be extended, promoted and fully implemented. Temperature peaks can be significantly reduced enough to allow fish species to survive spells of extreme heat. Riparian shade minimises the effects of climate change, thereby maintaining water quality and aiding biodiversity and resilience.

Catchment Sensitive Farming (CSF)

A number comment that CSF should be expanded from current high-priority areas to cover the whole of England. The NFU state that capital grants through CSF and countryside stewardship have enabled farmers to match-fund investments of £182m on farm infrastructure to improve water quality. Rolling out CSF nationally would encourage landowners to invest even more. Capital payments should be used to protect watercourses from livestock. A national rollout of CSF or a similar initiative should be used

to keep stock out of all farm watercourses. This would reduce soil erosion, faecal indicator organisms and enrichment along with the potential of improving animal welfare.

Agricultural systems

Many respondents suggest that farmers should plant a wider range of crops (building on the greening requirements of the Basic Payment Scheme) and maintain soil cover to reduce runoff and soil erosion. Diversity in crops can reduce the need for agricultural inputs and improve soil health, which in turn can reduce impacts on water quality. Crop diversity and the requirement for cover crops should be further implemented as a baseline or support through payments, building on the progress in Nitrate Vulnerable Zones (NVZ) and Farming Rules for Water (FRfW) legislation.

You said crops should only be planted in well-suited locations; for example, not farming maize in erodible areas. An increasingly extreme climate exacerbates the importance for the right crops in the right places. Some highlight that the frequency of inappropriate crops on rented land, including maize, potatoes and cereal crops is commonplace - regulation should target these areas and support both a change to better suited crops and better long-term management of rented land.

Some state that support is needed, for a range of farm systems, including organics, permaculture, agriculture and integrated farm management practices. In general, these systems aim to improve the health of the farm environment, thereby reducing water use and minimising pollution. Previous countryside stewardship schemes have supported organics through conversion and management payments and elements of other agriculture systems. Many respondents said that there should be a better focus on good soil management which forms the basis of varying systems.

The NFU state that further government-funding should be given to industry-led schemes, including CFE, Tried and Tested, and the Voluntary Initiative. These initiatives are a successful way of helping farmers to efficiently manage nutrients over and above regulation. Government backing for these schemes would be a cost-effective way of further addressing pollution from agricultural fertilisers.

Agricultural chemicals

Some of you state that all agri-chemicals should be banned to prevent pollutants in water. Organics prohibit the use of herbicides and restrict the use of pesticides. Other responses state that agri-chemicals should be taxed. This would reduce their use, and proceeds could be used to fund further environmental work.

Some state that productivity has often been achieved to the detriment of animal welfare, unhealthy food and environmental degradation: the only beneficiary from a high turnover is the farmer. Animal welfare, healthy food and environmental health should now come before productivity. This can be achieved by a transition to organic arable farming, which will ensure that enough food is grown to feed our population and that the environment can recover.

Catchment Based Approach (CaBA)

The need for collaborative working is seen throughout responses. Collaboration and collective action should be carried out by land managers to support catchment level working. A varied approach can be taken to these groups, with some involving community groups, advisors and land managers and some just farmers. This landscape scale work is more effective at reducing agricultural pollution issues than farmers acting alone. This has the potential to tie in effectively with the CaBA by bringing together multiple interest groups and landowners.

The landscape recovery component of ELM has the potential to bolster facilitative working. This provides the ability to make evidence-based decisions. This is best done by working at catchment scale in collaboration with other landowners, the water industry, and other organisations such as LEAF, farming wildlife groups, internal drainage boards (IDB), lead local flood authorities (LLFA) and other environmental groups.

Greater funding for farm advice is required. This can integrate farm and land use to protect the water environment and increases ecosystem services including natural capital (for example, drinking water, flood defence, land drainage, and biodiversity). Farm advisors can also link up farms across a catchment, have an overview of issues and progress and assist in putting together strong ELM applications.

Regulation and enforcement

Many of you said that farmers should not receive funds for good environmental performance if they are breaching baseline regulation such as FRfW, Silage, Slurry and Agricultural Fuel Oil (SSAFO) and Basic Payment Scheme (BPS). ELM should include a strong regulatory basis and so restrict funding for farmers if they are not undertaking the basics for environmental protection. As farmers are paid for environmental management, they should be fined when environmental damage occurs. Following serious pollution events, the Environment Agency needs to be more successful in implementing sanctions.

Many state that regulation needs to be simpler, more coherent and better integrated and enforced. Many farmers breach SSAFO and FRfW. The agriculture food supply chain should support and require farm business to drive better practice and sustainability from farm to fork.

Some suggest that government should have compulsory purchase powers for areas with high pollution and flood risk. Flood Zone 3 areas should either be purchased, or protected to form corridors of water quality protection. Practical implementation of this would involve restricting high-risk agriculture, buffer strips and reducing modifications.

Many of you highlight the lack of Environment Agency officers and number of inspection days. Environment Agency inspections should also be more thorough. Enforcement has the added benefit of working as a deterrent to other farmers who may carry out bad practice. The Environment Agency should better link up with other the Rural Payment Agency (RPA), Red Tractor, and organic certification bodies to share non-compliances and information. This will result in better understanding of the issues and where to target interventions. Serious or repeat offenders should face financial sanctions.

Land managers should undergo a greater number of inspections, both physical and technological, for example, through the use of drones. There is a need to improve the Environment Agency capability to inspect farms - on average a farmer currently receives one inspection every 160 years. This should be increased to both enforce regulation and advise farmers on good practice.

The CLA supports the recommendations in the recent Dame Glenys Stacey Review of farm regulation and stress that changes in regulation must be supported by consultation with farmers and landowners:

"There is a role for government in maintaining the quality of inland waters. Tackling agricultural pollution effectively requires a robust regulatory regime, a voluntary, farmer-led approach to nutrient management, better advice and guidance and promoting innovation."

Market led approaches

Many respondents want to see a rebalancing of power between supermarkets and producers. The drive for lower prices from supermarkets leads to lower production standards, viability and environmental harm. To counter this, supermarkets could enforce and finance higher supply chain standards. For example, retailers could make greater use of assurance schemes (such as LEAF Marque, Red Tractor, RSPCA Assured and organics), in-house environmental standards, farmer training, audits and farm infrastructure. Similarly, consumers should be prepared to pay a fair price for food, as well as supermarkets improving consumer awareness and improving their offering of local and seasonal produce.

But others suggest that charging more for food will not be acceptable to consumers:

"Food producers are unable to pass those down the food chain because of structural imbalances in the market and deeply embedded consumer expectations on the price of food."

Monitoring

The Environment Agency should carry out more and better targeted monitoring to increase the amount of real world data we have for water quality.

Monitoring should not focus on inspections alone; the Environment Agency should focus on monitoring agri-environmental impacts. This would improve our understanding of agricultural and its interactions chemicals behave in the environment through research. Physical farm inspections could be targeted on higher-risk areas based on data collection.

Reforestation

Many make reference to the proven benefits of tree coverage to water quality - reducing soil erosion, runoff, pollution, and by slowing the flow and retaining water. Tree cover also offers a full range of ecosystem services, including carbon sequestration, biodiversity benefits, renewable materials and amenity value. Woodland creation and management should therefore be supported in CSF and ELM.

The Forestry Commission reference that woodland buffer strips should be viewed as having great value in the agricultural landscape, where they can reduce nutrient load by 50-90%. Additionally, buffer strips shade watercourses, protecting water quality and biodiversity. However, it is important that woodland is only sited in the correct places, for example, not on peatland or archaeological features. A balance between more productive woodland and native, broadleaved habitat should be achieved and spatially targeted.

The Forestry Commission go on to state that changing land use from agriculture to woodland significantly reduces pollution loads - nitrate and phosphate by up to 90% and 100%, respectively. Faecal indicator organisms are reduced by a similar amount. The cessation of tillage and semi-permanent nature of woodland greatly reduces soil erosion and thereby improves water quality. Within a few years after woodland creation, pesticide use is usually ceased, reducing pesticide pollution to near zero. Indeed, catchments with the cleanest water are generally well wooded. ELM should enable farmers to apply for woodland creation and management grants on a targeted base.

Natural flood management

Many of you said that re-naturalising watercourses and natural flood management should be at the core of ELM to improve water quality, and reduce peaks and droughts. Land managers should receive payments to encourage them to create more wetlands and other priority habitats, such as wet woodlands. Headwaters should be initially targeted to reduce peak flow and improve water quality.

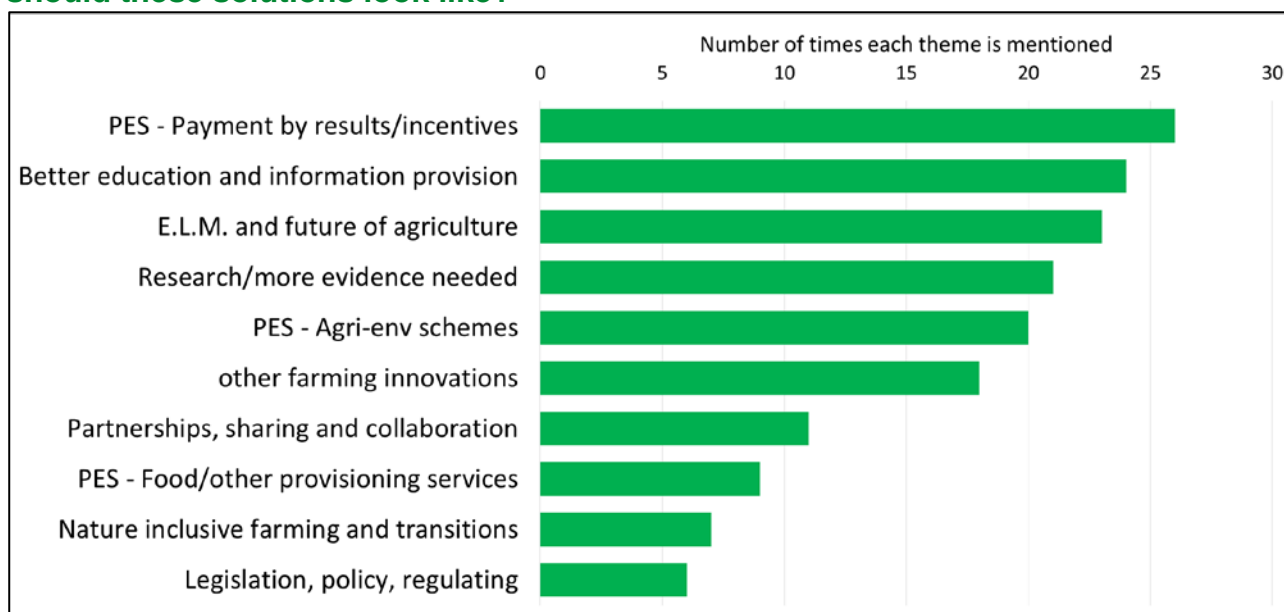
Climate change will exacerbate periods of too much and too little water on farm. Government should support storage, such as reservoirs and harvesting in line with the NFU's flood manifesto report. These mechanisms will also improve water quality by reducing runoff and flooding. The report asks government policy to 'plan, protect and pay'. Planning involves horizon scanning for flood and catchment management; protect by managing risk; and paying involves funding these measures. These measures will become more important as extreme weather events become more frequent.

3.9.2. Consultation question 20

How can we support the farming sector to excel at innovative solutions which benefit both productivity and the environment? What should these solutions look like?

There were 393 responses to this question. Figure 16 summarises the top 10 themes people gave to question 20.

Figure 16: Top 10 themes - How can we support the farming sector to excel at innovative solutions which benefit both productivity and the environment? What should these solutions look like?



You told us...

Innovation

Innovation should be financially supported and enhanced. This should include precision technology, low emission spreading equipment and nutrient management planning software. Without this, farmers can struggle to apply only the required amounts of fertiliser, resulting in pollution, inefficiency and regulatory breaches. Research and knowledge sharing should be supported to increase the uptake of innovation.

A number of you said that farmers should be supported to install new infrastructure - in particular slurry storage. Without support, increasing slurry storage is often difficult for small and tenanted farms. This is compounded by the volatile dairy market and changing and uncertain regulation around slurry storage. Substantial grants and greater regulatory clarity would result in significant water quality gains.

Respondents state the need for well-funded research, innovation and on-farm technology. Many of you want government to encourage linking farmers with universities and researchers. This will foster more joined up working and better enable innovation to reach farmers. Farmers will need help in creating these links and may require funding. Continued research and development is necessary to make the case for change and to assess the impact of altering farmer behaviour. Evidence that profitable farming can be integrated alongside environmental benefits could encourage farmers to work towards other areas detailed in this report- facilitation, more sustainable farming systems and ELM participation. Respondents state the need to progress and up-scale technology to support farmers in achieving higher environmental standards. Precision farming technology, monitoring equipment, investment in renewable energy and better waste management are all areas of focus.

3.10. Challenge 8: Pollution from towns, cities and transport

The Challenges and Choices consultation documents summarised how pollution from towns, cities and transport significantly impact on the environment. Urban pollution events are particularly acute during heavy rainfall following a period of prolonged dry weather. This type of weather pattern is likely to be more common due to climate change. We all need to:

- ensure that new developments and infrastructure employ sustainable drainage systems to reduce pollution and the risk of flooding
- understand where our drains and sewers go
- not put unsuitable material such as oil, fats and wet wipes down the foul sewer
- not connect sinks, washing machines and toilets to the surface water drains that lead directly to our environment

For further information on this challenge, see the [pollution from towns, cities and transport](#) challenge document.

3.10.1. Consultation question 21

What can be done to address pollution from towns, cities and transport?

There were 407 responses to this question.

You told us...

Breadth of issues and responsibilities

This question provoked a breadth of responses through the consultation, which reflects the large range of causes, sources and activities that contribute to the issue of water pollution from towns, cities and transport.

Comments range from the need for national action by central government, to raising awareness at the household level of issues, such as misuse of drains. A significant number of you refer to improving sustainable transport, which generally has an indirect impact on water pollution. Many responses are specifically in relation to the causes and impacts of pollution on the water environment. You suggest a number of mechanisms to tackle the issues:

- making changes to development planning requirements
- implementing run-off treatment infrastructure

- increasing penalties for polluters

The scope of the suggested solutions range from those within the remit of the Environment Agency, to those for wider government, councils, water companies and individual home owners.

Drainage infrastructure

You want to see the appropriate drainage infrastructure in place and updated where necessary to avoid pollution from sources such as sewerage discharges and combined sewage overflows. Respondents also want to see infrastructure to mitigate water pollution such as sustainable drainage and green infrastructure.

Applying regulations

You would like to see regulations appropriately applied, whether this is to address issues relating to the water industry, or those associated with the town planning system. You want legislation to change in order to reduce pollution from urban areas and transport. However, many recognise the challenges involved in doing this and consider the need for continued (and preferably increased) government funding for this work.

Pollution from transport

Although the consultation was specific to water pollution from the urban environment and transport, there are many responses in regard to the investment necessary to develop a more sustainable transport network, including cycle lanes. Key points highlighted on these topic areas and these are included in the details below even though many fall outside of the scope of the development of the river basin management plans. The most common issues raised, both by individuals and organisations are:

Drainage network and infrastructure

- Ensuring water-related infrastructure is implemented appropriately, and improved where required to prevent pollution and materials from entering the environment.
- Addressing misconnections from domestic, commercial and industrial premises through education and penalties, and prevent combined sewer systems.
- Increasing retention and treatment of run-off, including retrofitting SuDS, installing reed beds, and green infrastructure that deliver multiple benefits (including for biodiversity).
- Implementing natural flood management and green infrastructure to slow run-off, particularly in light of climate change, and introduce ways to reduce pollution risks from flood flows.

Control of chemicals

- Better control of chemicals and polluting substances, including for vehicle washing, winter salting of roads, pesticide use on public spaces and gardens, reducing oil and fuel spill and associated storage risks.

Land use planning

- Improved controls and checking of new developments in regards to the delivery of appropriate drainage; and implementation of sustainable drainage systems through new developments.
- Decisions by local planning authorities that protect the environment; increasing provision of green roofs, permeable paving, water capture and water re-use systems; promoting pollution reduction plans for businesses.

Education and awareness

- Better education of the public and industry on the use of drainage systems, including toilet ‘flushables’ (such as incorrect disposal of wet wipes), disposal of fats, oils and greases, and use of drains to prevent blockages and pollution.

Pollution control and impacts

- Better identification of the sources of pollutants entering the water environment and consideration of the biodiversity impacts.
- Increased fines and penalties for pollution incidents.
- Increased environmental monitoring, including run-off from roads.
- Litter prevention, litter clearing by councils, tackle fly-tipping, and improve household waste collection and recycling provision.

Sustainable transport

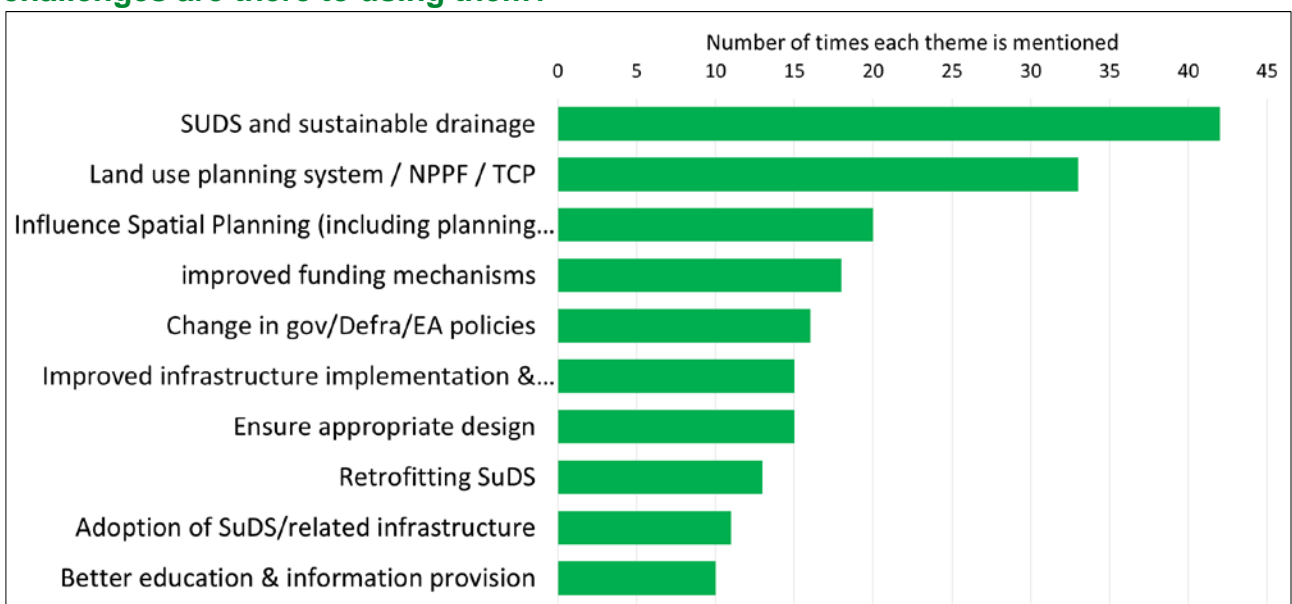
- Improving and increasing usage of sustainable transport, including reducing and incentivising the costs of public transport use; better provision of cycle and footpath infrastructure; discouraging private car use.

3.10.2. Consultation question 22

How can sustainable drainage systems and green infrastructure be most effectively used to tackle pollution from urban areas? What challenges are there to using them?

There were 368 responses to this question. Figure 17 summarises the top 10 themes respondents gave to question 22.

Figure 17: Top 10 themes - How can sustainable drainage systems and green infrastructure be most effectively used to tackle pollution from urban areas? What challenges are there to using them?



You told us...

Design of sustainable drainage infrastructure

Well-designed SuDS and green infrastructure are recognised by the overwhelming majority of respondents as providing multiple benefits for people and the environment, including better integration and connections across towns and cities.

You highlight the critical importance of SuDS and green infrastructure to ensure developments are resilient to climate change. You emphasise that, where well designed, these interventions reduce surface water runoff, improve water quality and support greater biodiversity. This, in turn, enables spaces to be more attractive places for local communities, enhancing people's health and wellbeing.

Implementation of sustainable drainage

Many raise the concern that the uptake of high-quality, multifunctional SuDS schemes and their implementation in developments is currently low. You highlight a number of ideas and challenges to facilitate more widespread implementation, these include:

- making SuDS mandatory for all new development schemes
- addressing their perceived cost
- educating how and where SuDS can most effectively be incorporated
- addressing space constraints
- investigating the extent to which local plan policies promote SuDS and green infrastructure
- researching problems retrofitting SuDS to existing development
- addressing issues around adoption and who pays for the long term maintenance costs

Other common issues and opportunities you raise include:

Land use planning system

Sustainable drainage systems need to be made mandatory for all new developments, with the planning system highlighted as the route to ensure this happens.

Changes should be made to the National Planning Policy Framework and Planning Practise Guidance to ensure that developers have more obligation upon them to provide SuDS system.

Green infrastructure and SuDS should be made a mandatory requirement for new developments in the same way the Environment Bill will make biodiversity net gain mandatory.

Promoting use of sustainable drainage

Improve awareness and promotion of green infrastructure and SuDS so that developers and the planning community are more aware of good practise and more actively suggest and expect to see these as part of planning consultations and strategic growth plans.

Including well designed SuDS in development schemes could result in a faster approval process and reduced capital costs.

Sustainable drainage design

Appropriate design is important at an early stage with bolder and more innovative design of SuDS and green infrastructure, and more space allocated within developments to allow for nature-based solutions.

SuDS need to be designed with the aims of managing water quality as well as quantity to ensure optimum solutions are found.

More join up is needed between local planning authorities, lead local flood authorities, water and sewerage companies and the Environment Agency.

Update to non-statutory technical SuDS standards, for example to strengthen the promotion of SuDS that address water quality issues alongside reducing the amount of runoff, and to reflect changes to planning guidance that allow SuDS and open space to be one and the same.

Drainage system adoption

Adoption and ongoing maintenance of SuDS and green infrastructure were identified as key barriers, particularly the type of green, above-ground SuDS, which provide multiple benefits.

Several of you highlighted the April 2020 publication of the SuDS code for adoption, agreed by Ofwat and water and sewerage companies as a helpful step, but were concerned that not all SuDS were covered.

Funding mechanisms

Improved funding mechanisms, including to enable retrofitting of infrastructure, including:

- grants or loans from central government
- developer contributions via the community infrastructure levy or section 106 agreements
- taxation incentives, for example by reducing council tax payable on properties constructed with SuDS

3.11. Challenge 9: Pollution from water industry waste water

The Challenges and Choices consultation document summarised how the water industry's primary role is to provide clean drinking water and safely return treated waste water to rivers and seas. Waste water pollution and over-abstraction from rivers and groundwater are among the biggest issues impacting on the water environment.

Over the last 30 years, water company investment (funded by their customers), tighter environmental standards, better regulation and closer working with communities has improved the way water companies operate and the state of the environment. However, there's still more to do. The water industry still contributes to 28% of surface and ground waters not achieving their ecological and environmental objectives. Funded plans are in place to address most of these historic issues.

Climate change, population growth, the continued growth of urban areas and emerging chemicals will challenge the future resilience of water company services and the built and natural assets they use. All of us need to:

- play our part by thinking about what we pour down the sink and flush into the sewers and by using less water

- ensure water companies provide a high quality services to us their customers and benefit the water environment by:
- sustaining high levels of performance and compliance
- working together to ensure supplies are resilient to drought
- completing the environmental improvements set out in the water industry national environment programme
- improving the resilience of water supplies and waste water drainage to the risks posed by climate change and population growth
- working in partnership to implement innovative and cost effective catchment management solutions

For further information on this challenge, see the [pollution from water industry waste water](#) challenge document.

3.11.1. Consultation questions 23 and 24

What can be done to address pollution from water industry waste water?

And

What opportunities exist for water companies to collaborate with other sectors and organisations on measures to improve the water environment?

There were 398 responses to question 23 and 367 responses to question 24. Figure 18 summarises the top 10 themes people gave to question 23. Figure 19 summarises the top 10 themes people gave to question 24.

Figure 18: Top 10 themes question 23 - What can be done to address pollution from water industry waste water?

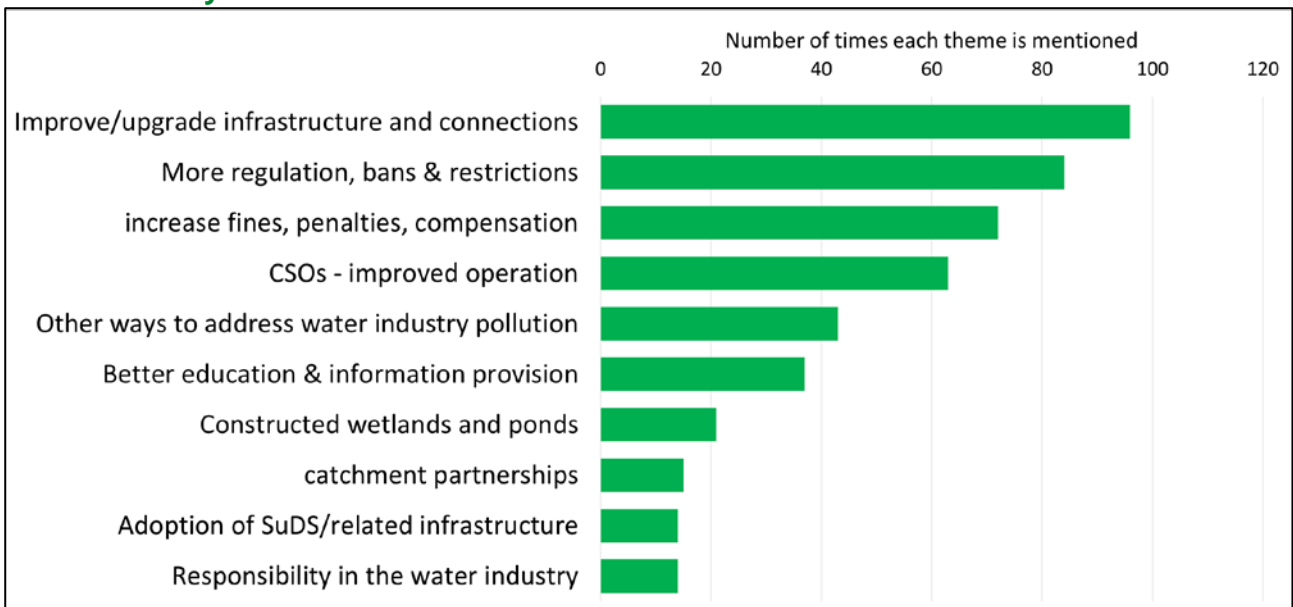
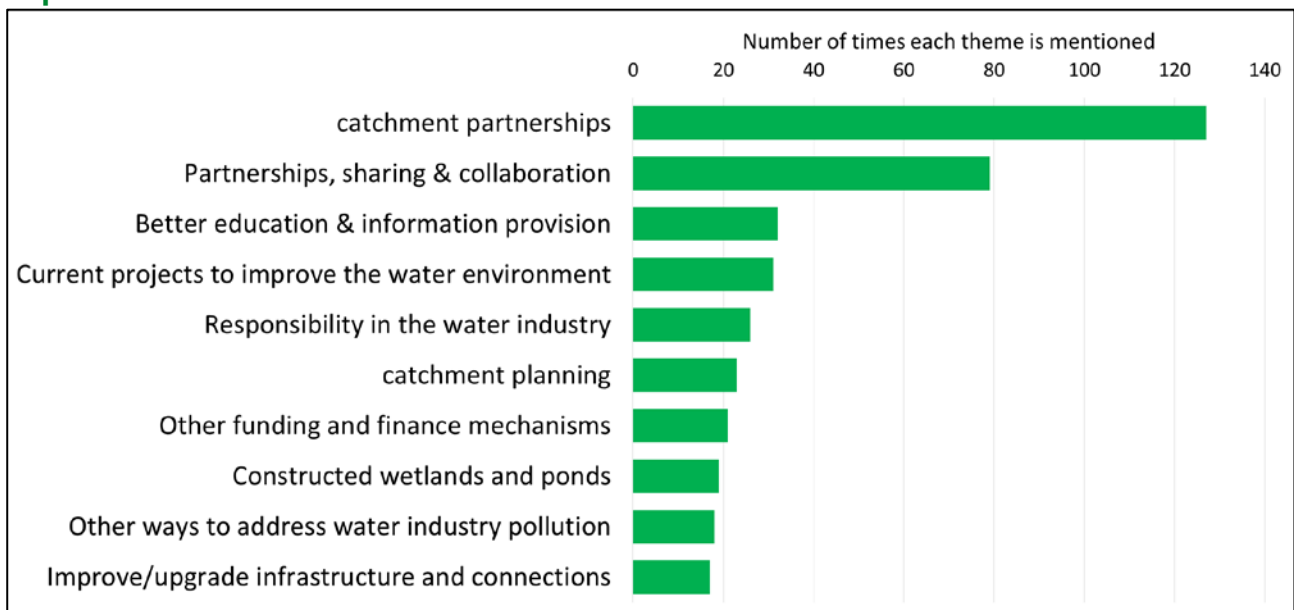


Figure 19: Top 10 themes question 24 - What opportunities exist for water companies to collaborate with other sectors and organisations on measures to improve the water environment?



You told us...

Protecting England's water from water company polluting discharges is a priority to you.

You identify that the discharges from sewer overflows are a significant issue and that the reduction of these releases would bring many benefits.

Infrastructure improvement, reducing sewer overflow discharges, improving waste water networks and treatment facilities are recurring themes. This can also be combined with SuDS to enhance the urban infrastructure.

"Combined sewer overflows (CSOs) remain a significant issue for many of our freshwaters and coastal waters. These combined sewer overflows need to be addressed as a matter of urgency because the increased frequency and intensity of rainfall events that we are already seeing means that these combined sewer overflows are operating more than ever. Although addressing these will be costly, better separation of dirty and clean water will have benefits beyond preventing pollution by increasing the availability of clean water both for dilution of discharges and potentially for use by society."

"Inadequate sewerage systems remain one the largest pressures on the water environment. The thousands of combined sewer overflows are placing our environment at risk through direct flows of pollution including raw sewerage, phosphates, nitrates, pharmaceuticals, litter and plastics causing a huge amount of damage to nature and emptying directly into our watercourses placing previous ecosystems at risk. There is an urgent need to formalise and standardise how we plan properly for the future to manage the challenges to the drainage and waste water system from housing growth and climate change."

You said that you want existing legislation to be enforced and, where prosecutions are taken, the penalties to be increased.

You also want the existing legislation to be tightened to make companies more accountable for the polluting discharges they control. "Whilst the situation on the UK's beaches has massively improved, tougher legislation and further investment is needed to improve water quality further in all our water environments."

You recognise the added value that natural solutions and interventions such as reed beds can provide by creating new habitat for wildlife, and the need for continued innovation, research and development in clean up techniques. "It is essential that water companies engage in further work with catchment partnerships, councils, the Environment Agency and environmental charities to enable a holistic approach to delivering natural solutions to create more resilient catchments, increased enforcement to enable improvement and to delivering landscape scale projects."

You recognise the importance of better education. You suggest this could take the form of water companies working with industry to manage their discharges into the sewer. For example, volume reductions or the recycling or re-use of chemicals to control at source some of the components of industrial waste water. Education of home owners is also seen to be an important approach. Respondents highlight that the sewerage network is not a catch all disposal route and the promotion of what is suitable for flushing, through initiatives like the 'poo, pee and paper campaign' (3Ps), is important in maintaining the infrastructure and preventing blockages that cause pollution.

"Education is the catalyst by which long-term behaviour change occurs - it cannot be solved through economics or regulation alone."

Another regularly repeated comment is the need for more collaboration with others who can help with both monitoring and clean up interventions, such as local rivers trusts, wildlife trusts, catchment partnerships, environmental groups and farmers.

"There are opportunities for collaboration but they are not being taken up as often as they should. This is because there are problems with data sharing and with sharing their resources at operational level. Water company employees/engineers do not like to help to share scarce capital resources with other organisations. This relates to the too fragmented structure we operate in."

The commitment of the water industry to catchment solutions is outlined in a number of schemes currently proposed and outlined in their responses. However, working more with agriculture as part of a catchment solution is encouraged by respondents.

"Water companies must play a full and inclusive role when setting and delivering catchment management plans, including agreeing local measures to limit environmental damage from sewage discharges, funded by water companies where applicable."

3.12. Catchment partnership working

The challenges our water environment faces cannot be solved by one organisation alone. They are often complex problems requiring a step change in approach, and action by many groups and organisations. Water management needs to be nationally strategic, but locally owned. The river basin management plans are a crucial component of the strategy, and provide the opportunity to secure greater participation and local ownership. We all need to:

- build upon our successful partnerships of the past, strengthening and deepening them to secure support from wider parts of society that benefit from a healthy water environment (such as local business and local government)
- work with each other across multiple scales (national, regional, area and catchment) in a more cohesive, joined up 'systems' approach than we have achieved in the past

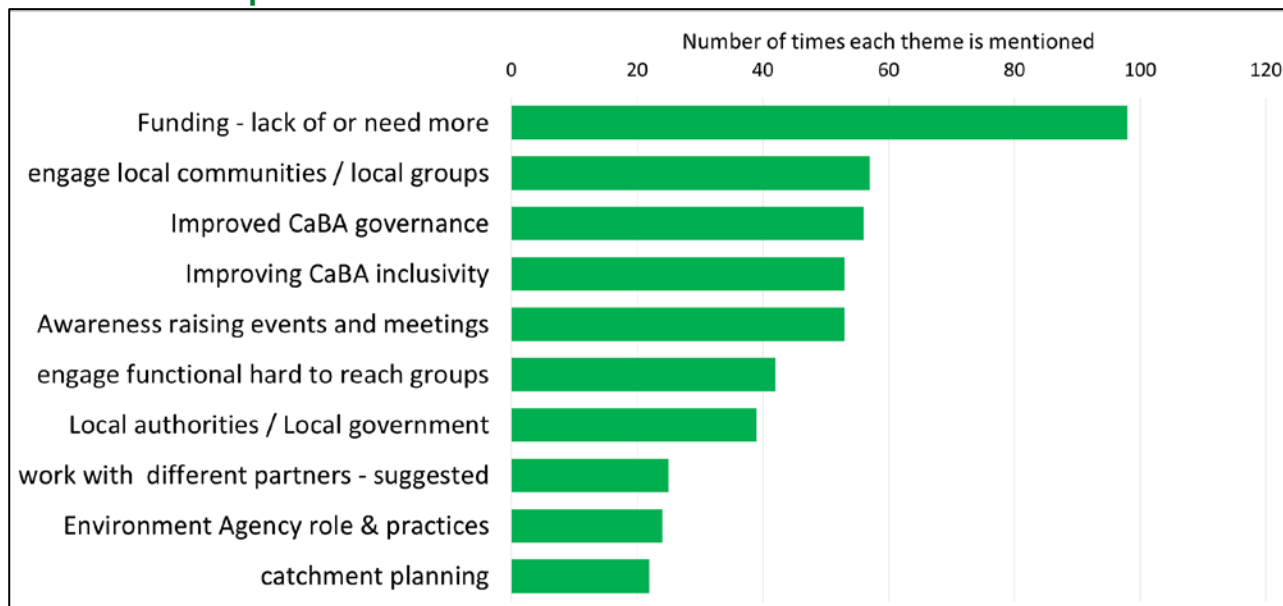
You can find out more about your local catchment partnership on the [CaBA](#) website.

3.12.1. Consultation question 25

How can local partnerships become more inclusive and representative of all of the stakeholders within their catchments?

There were 401 responses to this question. Figure 20 summarises the top 10 themes people gave to question 25.

Figure 20: Top 10 themes question 25 - How can local partnerships become more inclusive and representative of all of the stakeholders within their catchments?



You told us...

Responses to this question focus on what regulatory or government changes are needed to better enable CaBA partnerships to be more inclusive and strengthen representativeness across all catchment stakeholders.

There is also a clear focus by you on who should be represented in catchment partnerships. Many comments are strongly supportive of catchment partnerships, saying that they are working well, and many responses state they could give examples of good partnerships which are inclusive and achieving good outcomes. Others state that catchment partnerships have a clear place in catchment engagement, planning and delivery.

More secure multi-year funding

The lack of secure multi-year funding for catchment partnership hosting is a dominant, recurring theme, acting as a barrier to representativeness and inclusivity. The majority of you agree that current partnership funding is not sufficient, but that partnerships are doing their best with insufficient funds. Many of you refer to the significant £3 mobilised from every £1 of public investment that the CaBA generates. The current short term annual funding for partnership hosts leads to a lack of job security and high turnover of staff; this results in a lack of consistency and limited experience of staff. Most of you consider that multi-year funding would be more efficient and sustainable, with some suggesting a 3 or 5 year settlement for catchment partnership hosting. Coastal partnerships and local nature partnerships would also benefit from more secure funding to enable a catchment to coast and source-to-sea approach to improving the water environment.

The level of resource that catchment partnerships have, due to funding limitations, does not match the expectation of what partnerships are required to achieve. You acknowledge that engagement takes a lot of time, and that this requires resource, staff and funding to do well, especially if the expectation is to include harder to reach groups in order to be more representative.

The low level of funding is also considered to be a reason why it is difficult for partnerships to consistently engage some stakeholders. Without funds, delivery cannot happen, leading to a lack of action and consequently fewer benefits seen by partners, volunteers and investors.

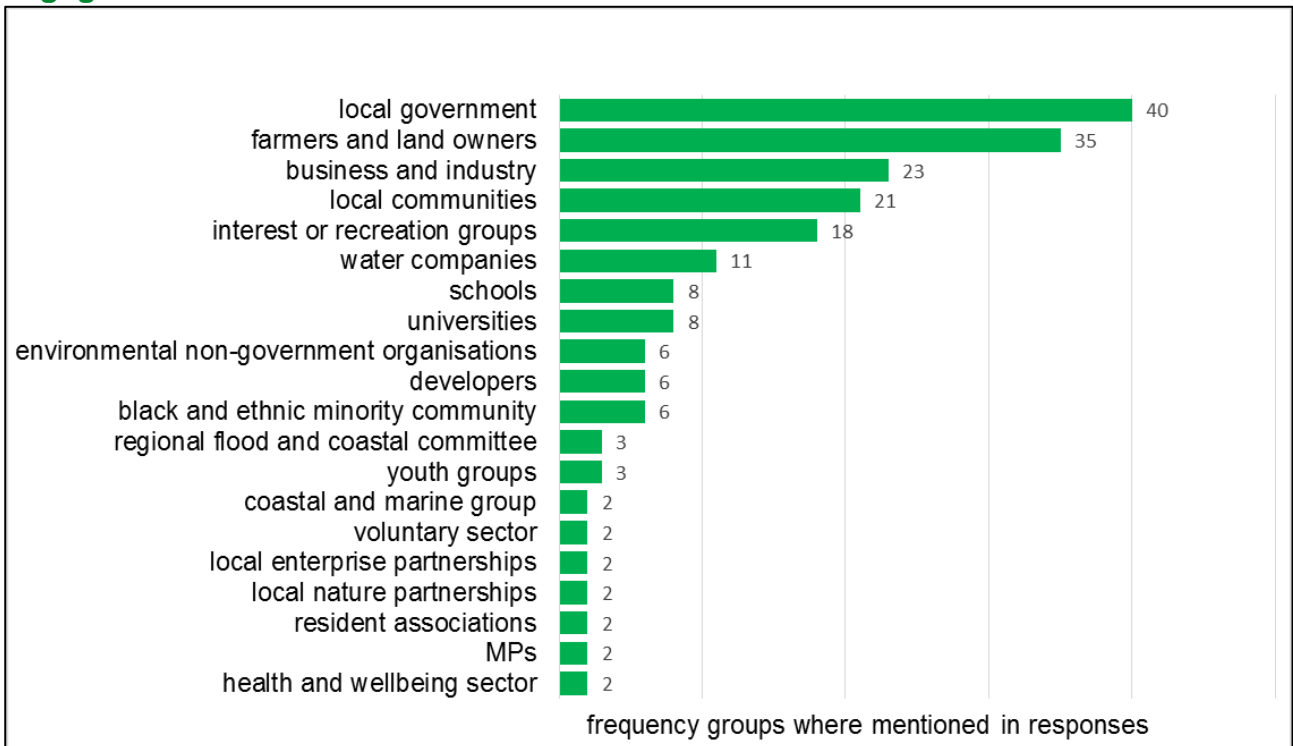
Stakeholders to involve

You said there is still potential for improved representativeness in catchment partnerships. The groups mentioned as needing more representation include local government, farmers and landowners, business and industry, local interest, and recreational groups. Partnerships must be able to work strategically with government and contribute to multiple outcomes. Many of you consider local authorities as being best placed to inform residents of their environmental responsibilities through catchment management and that this role needs to be clarified in legislation.

“If people are interested in and understand the value of a system, they will be motivated to take a more active role in partnerships”.

Figure 21 displays the frequency functional or sector groups were mentioned as being necessary partners in a catchment partnership.

Figure 21: Groups identified in question 25 that catchment partnerships need to engage with



Strategic planning

Many of you highlight that strategic planning for more sustainable outcomes requires a broad range of stakeholder views. Many agree that better representation improves understanding of the variety of perspectives across public, private and civil-society actors in a catchment which leads to multiple benefits and improved resilience.

Commitment to environmental change

Many of you highlight a growing public interest in green and blue spaces, greater public knowledge of issues such as climate change, the biodiversity crisis and a greater understanding of the wellbeing attributes of the natural environment. This awareness has been enhanced during the coronavirus pandemic and many respondents state that strategically and purposefully targeted government investments will be required to build capacity in the catchment partnerships. This will help drive a recovery from coronavirus by boosting local jobs and local skills across the country to deliver more place based green and blue infrastructure.

“Partnerships should be refreshed and invigorated on the basis we are facing a climate emergency. Partnerships should be compulsory, adequately funded and underpinned by legislation.”

Changes to current arrangements

You said that catchment partnerships will benefit from guidance on involving additional partners. Respondents indicate that better alignment of work with flood risk management bodies (for example, lead local flood authorities) will bring multiple benefits to environmental outcomes. To support this, there are suggestions that sufficient funding for a communications hub to support partnerships and national strategic work be made.

The review of the river basin management plans provides an opportunity to ensure there is a clearer remit and clarified roles for catchment partnerships, local nature partnerships and nature recovery networks and the relationship between them.

“There also seems a disconnect between flood defence and catchment management, when what's needed is an integrated approach if major change is to take place in the way our rivers work.”

Ways of working to increase participation

You said some changes in ways of working could increase participation in partnership working. You highlight a continued role for the Environment Agency to draw stakeholders together in projects that require community involvement. Many agree that continuing to use established and innovative outreach and communications brings benefits, such as: citizen science projects, online events, partnering other stakeholder events, newsletters and social media.

“Citizen science is key to community engagement: it helps communities understand their role, gives them a role to play and helps with ownership of the process. All stakeholders feel they have an influence and can feel they are contributing.”

3.12.2. Consultation question 26

How can local partnerships achieve a better balance of public and private funding to support and sustain their environmental work?

There are 369 responses to this question. Figure 22 summarises the top 10 themes people gave to question 25.

You told us...

Public versus private funding

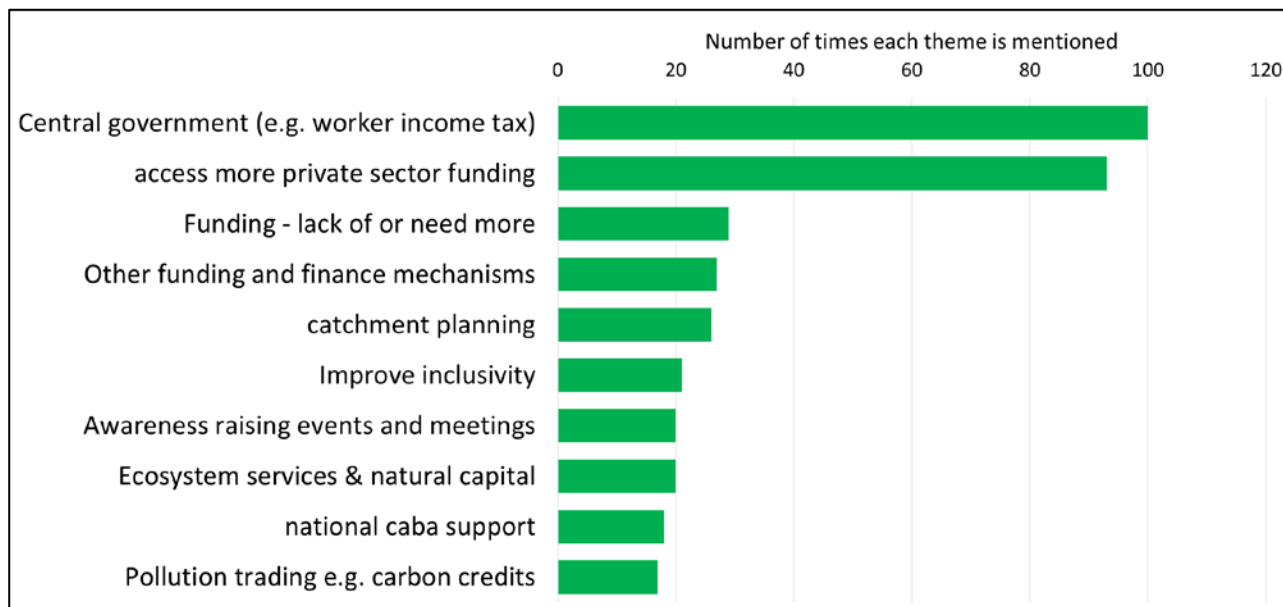
This question on finding a balance between public money for public goods and private investment for improved resilience generated many responses. Many suggest that public funds provide the enabling conditions and private funds assist implementation.

Most of you said that public funding could be added to by private funding to bring about greater collaboration, leading to multi-faceted benefits and more strategic approaches. The difficulty of finding government funding for revenue investments for partnership hosting is raised, with public funding considered necessary for their delivery. Many of you said that the Defra aim of partnerships becoming self-sustaining is inappropriate because partnerships are delivering 'public goods'.

“There is a lack of funding for local partnerships, which need resources and planning to run well. They should be publicly sustained with a more realistic level of longer term secure funding for core activities, recognising the added value they can bring in terms of sharing detailed local knowledge, enthusiasm and expertise as well as cost effective environmental delivery.”

A number of respondents highlight that there could be an unequal geographical distribution of community capacity and capability according to relative wealth and prosperity. Some communities and local businesses are more able to contribute to catchment improvement projects than others.

Figure 22: Top 10 themes question 26 - How can local partnerships achieve a better balance of public and private funding to support and sustain their environmental work?



Core funding

Many of you raise the issue that core public funding works as a catalyst for seed funding for private investment. As catchment partnerships are not legal entities, seed funding is vital as legitimacy from the public sector investment to provide confidence for other investors. Many partnership and partner respondents want to see recognition of the success they have in securing this.

Resources

A lack of core public funding is seen as limiting the scope of partnerships: “catchment partnerships need more funding to run the partnerships well. The hosting role takes a lot of time coordinating, planning, sharing knowledge, helping partners write funding bids, communicating with different audiences etc. There is a lack of public funding for local partnerships, especially when you look at what is asked of them to deliver. This initial investment will help partnerships to become resilient in the long term if they have a portfolio to show stakeholders of all the work the partnership has achieved.”

Increased and multi-year funding will allow partnerships to develop more collaborative, longer term catchment plans, and spend time on creating online platforms to demonstrate actions, benefits and raise awareness.

Understanding business

Many responders refer to the importance of private sector involvement and the need to build the business case in catchment management. Businesses need to understand the benefits of a clean environment and their impact on it, especially for those who rely on water for production.

“Our experience ... indicates that investment in local partnerships is a positive means by which significant changes to the water environment can be co-ordinated, and most importantly, magnified by a combined approach to delivering solutions with other stakeholders.”

“We believe that through the catchment-based approach, we can bring about more environmental improvements for less financial and people resource.”

This may also help to adjust the mind-set within corporate communities helping them to realise the long term value of investing in environmental work and working in partnership with CaBA. By bringing private business and industry into the planning process and understanding their needs and objectives, they are more likely to become involved, feel some ownership and be more likely to see the benefit of investing.

“Promote the healthy benefits of rivers for mind and body and the recreational opportunities so businesses and partnerships are invested and supportive of being involved and associated with helping the community.”

Many of you want to see greater private sector alignment with the government's 25 Year Environment Plan.

“Several global corporations have strategies and CSR (corporate social responsibility) objectives that align closely with environmental goals including water efficiency and carbon sequestration. CaBA can align with these goals to mutual benefit.”

Green recovery and corporate social responsibility

There is encouragement for partnerships to react to the positive health and wellbeing effects of interacting with the environment and awareness of natural capital that has been created by the coronavirus pandemic.

“Many organisations are already seeing the benefits of being innovative and supporting environmental causes. Now is a good time to make use of that.”

Linked to this is the increasing awareness of businesses to improve their corporate social responsibility and producer responsibility. There are many suggestions about linking into carbon offsetting schemes offering local delivery options so businesses can see the benefits. There are calls for the current definition of offsetting to be broadened to include water quality and habitat improvement. Methods of indirect funding by business which

would ultimately benefit the business through improved public perception included the community seeing a business contributing, this may also create a better community awareness of the business, as well as positive attitude that the business is contributing the community.

Alternative funding options

There is general agreement that alternative funding needs to be identified as current funding is insufficient to achieve the aims partnerships have set out in their catchment plans. Some think this situation will get worse in the event of a lack of public money after the impact of coronavirus crisis and the UK leaving the European Union. EU funds have been a large contributor to environmental improvements across the UK. Innovative funding suggestions include the NFU model of a 'fund of funds' where funding is delivered through a mix of payments and loans which provides a return on investment; and ring-fencing a portion of household water use charges for an 'environmental fund'.

A popular idea is based on the polluter pays principle, where fines for breaching environmental regulation, from littering to breaching permit regulations could be put into an environmental project fund into which catchment partnerships could bid.

A number of you said that Section 106 agreements, made under the Town and Country Planning Act 1990, could be explored further with agreements made between local authorities and developers to include environmental enhancement.

3.13. Who pays?

Water companies, industry, businesses, farmers, government and voluntary groups spend £5 billion a year protecting public health and the environment by tackling pollution and maintaining the benefits and services water gives us all. Deciding who pays to improve and protect the water environment is difficult. To achieve the target of bringing 75% of waters back to near natural condition there will need to be a greatly increased level of investment in river catchments. If not, the environment is likely to suffer further damage and everyone will bear the cost of losing the benefits that nature provides.

To find out more about this subject, read the more detailed information in [the economics of managing water](#) document.

3.13.1. Consultation question 27

How should the step change in protecting and improving the water environment be funded and who should pay? Are there any barriers to doing this?

There were 454 responses to this question. Figure 23 summarises the top 10 themes respondents gave to question 27.

You told us...

Beneficiaries should pay: citizens and government

"It will take a lot of money, including policing the laws that are needed, but this is the area that we should be spending our money on, because there is nothing more important for our future happiness and security."

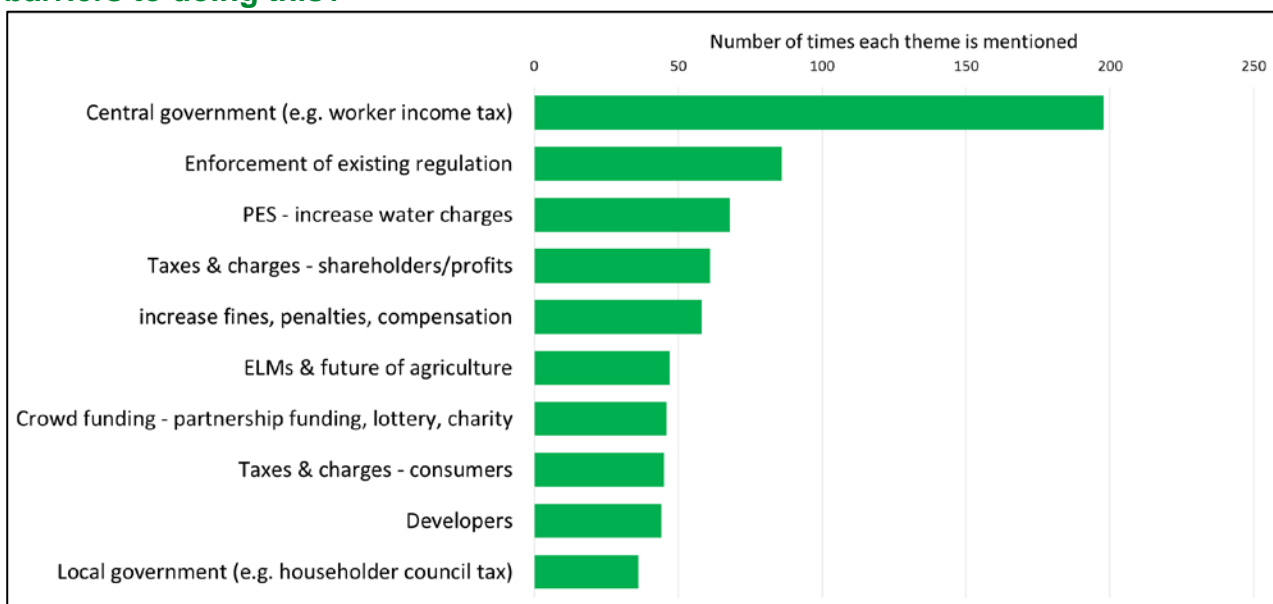
You said we should all be contributing to protecting and restoring the environment for our own good and the good of future generations. You told us that you think the biggest barrier

to achieving our goals for water is a lack of political will, although you recognise there are difficult trade-offs to be made.

You said it is right that the government facilitate this investment through tax collection and redistribution to protect water as a priority. You feel this is on balance the fairest way of ensuring everyone made a contribution. However, many of you feel that any tax should be progressive taxation, protecting those less able to pay like low income households and targeting those most able to pay like big business. Suggestions range from a general ring-fenced portion of income tax to more specific taxes on products that harm the environment, extra VAT on bottled water and a 'tourist levy'. Others would be happier to pay additional council tax to their local authority, in order to see their money reinvested close to home.

"A decision is needed from central government to establish what level of funding is required to meet the objectives of the 25 Year Environment Plan. The water environment is a fundamental element to a healthy ecosystem, but also to the nation's quality of life and the economy of the country."

Figure 23: Top 10 themes question 27 - How should the step change in protecting and improving the water environment be funded and who should pay? Are there any barriers to doing this?



You strongly support the goals in the 25 Year Environment Plan, but express growing demands that the government backs the right words with the right package of investment and action. There are numerous calls for a cross-party approach to the problem of how to fund a step change in water management. You support many new policies, including the agriculture ELM scheme, biodiversity net gain and Nature Recovery Networks; and see the potential for these to bring about positive change across a whole range of issues including achieving 'clean and plentiful water'. You call for the government to recognise that investing now in preparation for the impact of climate change is essential and cost-effective, compared with delaying adaptation and mitigation.

You said that, without widespread change in behaviours, values and understanding of how people impact and depend on water, you do not expect much to change. You think that investing in bringing this change about is the right thing to do because it will empower and mobilise citizens for the common good.

Beneficiaries should pay: water industry customers

"All users of water must be able to see that the increases in charges are fair all round. For many families, a smart water meter would do for water consumption what similar meters already do for energy usage. Support for families with low incomes is important. Advice for all industrial, retail and other non-domestic users in matters of water economy is also important. With these understandings I believe progressive and radical increases in charges will be accepted. We all use water, so we should all contribute in proportion to our usage of water."

Another way you said that beneficiaries should pay for a step change in protecting and improving the water environment is through water bills. For example, the proportion of the bill that pays for the improvements that companies make to the environment could be increased. Many respondents said that water is undervalued, both intrinsically and in monetary terms. You believe the undervaluation comes in part from the low price of water.

Many of you said that the price of water in water bills should be increased. Those who gave more detail feel this should be linked to use levels, with additional charges being applied to levels of use above a set sustainable limit, so that people had a greater financial incentive to reduce their water use. To aid this, many respondents call for water meters to be made compulsory.

Beneficiaries should pay: ecosystem services and natural capital approaches

"We may need to identify ways of harvesting resource from people who enjoy our blue gym and water environment resources. This may be through a tourism levy (a percentage of a visitor charge) or other mechanisms for levering in resource to support environmental protection..."

The conversation on payment by beneficiaries focused on the role of natural capital approaches and ecosystem services. These ways of thinking about our relationship with nature help people to understand how they benefit from and depend upon the natural world. You see a growing role for various methods on payments for ecosystem services. These include:

- paying land managers and owners to 'cultivate' more of the ecosystem services we depend on
- paying a contribution towards upkeep and maintenance of natural environments we use for recreation
- paying a contribution towards upkeep and maintenance of natural environments we use to improve our health and wellbeing, or by bringing more of this into our medical models through initiatives like 'green social prescribing'

You recognise the value of these approaches because they have the potential to deliver multiple benefits and solve multiple social and environmental problems at once, making them cost effective and sustainable. You want to see an expansion of innovative methods for funding and financing payments for ecosystem services, building on emerging tools like markets and auctions, with a focus on incentives and payments by results.

Polluters should pay: enforcement and fines

"The polluter should pay - so monitoring, investigation and enforcement should be drastically increased and any individual or company found guilty of causing pollution should be fined heavily, with increased/penal fines for repeat offenders. For me a step change in this is the most important - so polluters are afraid."

There is widespread support for the polluter pays principle, with this being seen as the right and fair way to deal with pollution and environmental damage. There is also strong

support for a more preventative approach - whereby potential polluters pay to prevent pollution, investing to mitigate or remove risks before an environmental problem arises.

Where a pollution incident does happen you told us that you expect fines to be substantial. Fines should pay for both fixing the problems caused and investing in improvements beyond the original condition of the environment before the pollution happened. You expect fines to be large enough to pose a real deterrent so that preventing pollution is the preferred option. You also said that repeat offenders should face increasingly tougher fines and criminal charges.

You generally support the mechanism of 'enforcement undertakings' rather than lengthy prosecutions, but you do not think that the level of redress is correct and said that polluters should pay more through civil sanctions. Alongside monetary and legal penalties you want to see more publicity to 'name and shame' polluters with the intention that this reinforces social norms against polluting. However, you don't think that anyone should be held to account for more than their fair share of an environmental problem or that those who need support to do the right thing are left without help. You also want to see funding for an advice and support service for land managers and farmers to support their transition to sustainable practices.

"Enforcement is an area which is crucial and is at present seriously underfunded - the Government must realise that money spent in this area can produce great savings in other areas such as dealing with the aftermath of pollution."

"Investing in the environment has been an area that has suffered massively under austerity, with statutory conservation and environmental organisations seeing funding cut significantly and Local Authorities are losing many (or in some cases all) of their conservation and ecological services. Therefore there needs to be an increase in investment and capacity in the statutory organisations that manage our environment, and specifically those who help to deliver Water Framework Directive outcomes."

"...it is very clear that the decline in government spending on environmental enforcement and regulatory activity has resulted in a deterioration of water quality and flow in many areas, and the absence of this essential part of the package for driving improvement is a significant cause of failure to progress towards national targets."

You feel strongly that a decade of funding cuts is creating ineffective monitoring regimes, and reduced ability to enforce water regulations. Many of you call on the government to provide much greater funding and support for monitoring and enforcement, both in order to catch polluters and call them to account, and to act as an effective deterrent. You see this as an essential part of a fair system and a precursor to the level playing field that is needed to facilitate a much needed shift to blended finance models for environmental improvements. You think that the cost of an effective level of regulation and enforcement can be funded at least in part by a substantial rise in fines and compensation payments.

Many of you recognise that it is often difficult to identify polluters and hold them to account, not least because many of the problems we face were created by polluters of the past. In these cases you believe it is the job of government to step in and put things right.

Polluters should pay: consumers, retailers, manufacturers and supply chains

"It is absolutely right that the government uses taxpayers' money to maintain our natural environment as it is in all our interests that they do this and the environment is all our responsibility. But big business should pay much more than it does...shareholder profit should be less important; environmental protection for the benefit of us all more so."

You told us that 'polluters' need to be thought of in a wider sense rather than simply an 'end of pipe' problem. Many of the goods we buy are potentially harmful to the environment

and you have many different views on where the responsibility for this should rest, although you broadly agree that this should be part of the overall model for funding the step change in protecting and improving water management. You think that manufacturers, industry and businesses that produce environmentally harmful products should pay some form of extra tax or charge in order to incentivise a switch to less harmful alternatives. Chemicals and plastics are seen as the best places to start applying these taxes. Some of you think it is fair to pass these costs onto consumers and others do not, believing business owners and shareholders should bear the cost themselves through reduced profit margins.

"We all have to pay but the water industry in particular owes the country a massive financial debt. The excessive rewards for senior executives and dividends are not justified. Ofwat needs to take a different approach to regulation. It is not good enough to rely on consumer pricing as the main mechanism for controlling water companies' behaviours. Stronger measures are needed."

A number of you refer to profit in the water industry. Overwhelmingly, those who raise the issue, feel that profit margins, high executive wages and big shareholder dividends were inappropriate and unfair. You said this operating model undermines trust in the industry. A minority call for renationalisation of water companies while others favour a 'not for profit' model of operating.

"Food sellers need to pay a levy for selling food that is not UK based and food that is not sustainable, these levies can make sure that UK food is still competitive during what will be a hard transition for farmers to sustainable farming."

Some see a role for retailers in altering the environmental impacts of supply chains, particularly with reference to supermarkets and farmers. You told us the indirect relationship between farmers and consumers limits their ability to internalise the costs of protecting the environment in the cost of food. Some of you said that pollution quotas, trading and offsetting would be an alternative way to drive a reduction in environmental impacts from products. A few respondents think adopting circular economy principles and practices will help bring this change about.

"Also, a much bigger contribution should be levied on developers - after all, much of the stress on water supply and on the water environment is directly attributable to housebuilding."

You also feel that developers should pay more, through the land use planning system. You hope biodiversity and environmental net gain will be effective mechanisms for making this happen.

Funding and financing the future

"Before the Covid-19 outbreak families were not walking near their river. Now they are discovering their local environment and appreciating this more. There is an opportunity to capitalise on this..."

Many recognise the risks to funding presented by the coronavirus pandemic, particularly third sector organisations who have already been hard hit in terms of reduced charitable giving. However, a few also highlight the potential opportunities of the pandemic due to people engaging directly with their local waterways, and a reassessment of global priorities. You feel these newer water environment beneficiaries could be an untapped resource and urged everyone to make the most of this.

Many of you told us that funding and financing in the environment sector needs to change. There are two clear groups of opinions: those who think there is not enough funding available; and those who think there is plenty of funding available but it is inaccessible.

"Public funds will always need to be made available to support the protection and improvement of the water environment. However, this funding needs to be widened and needs to be multi-year to allow future planning, staff retention, strategic working, partnership creation and project design, development and fundraising."

The first group, who see a general lack of funding available, call on the government to set up new funding streams that are secure and multi-year, rather than one-year settlements. You said this would allow for better planning and more stable projects that are more able to attract extra funding from other sources to supplement the core amount. You think a fund for catchment restoration could be created from increased enforcement of bigger fines for polluters. You also would like to see environment and climate projects allocated the levels of funding given to flood risk reduction.

The second group told us about 2 key problems: lack of coordination, not enough joined-up thinking and lack of clarity in the funding landscape, and lack of skills and capacity to harness innovative and blended finance models.

Many describe the funding landscape as complex, overlapping and inefficient, involving a lot of different organisations in the same space with very similar aims. You say this as a growing barrier to positive outcomes. Some respondents highlight the overlapping nature of different funding streams, with a widespread belief that this causes duplication of effort, unhelpful competition and confusion. You told us you want a clearer picture of the funding landscape, how things fit together and how priorities align. There are also concerns regarding the growing costs of simply applying for funding, with calls for more attention to be paid to a balance between accountability and bureaucracy.

Organisations that responded to the consultation said that they were aware of the potential for innovative and blended finance models to catalyse the step change needed. However, most feel unprepared to access and mobilise this money. They ask for more chances to train and develop skills in understanding green finance, developing investment-ready projects and engaging with unfamiliar private sector funding providers.

You also stress the need for stable, reliable government investment to provide core funding that de-risks further investments from the private sector, especially during the move to fully blended financing models. You also call for more regular use of tools like auctions, offsetting and natural capital approaches. You said this also needs to take account of the new ways that are being developed to monitor and report on outcomes from projects.

You reiterate the points raised in question 26 about the current and future potential role catchment partnerships could play in removing these barriers and smoothing the transition to new ways of attracting investment.

4. Summary of who responded for individual river basin districts

The Environment Agency is responsible for the review and update of the river basin management plans for the six river basin districts (RBDs) that fall entirely within England: Anglian, Humber, North West, South East, South West, and Thames.

The Environment Agency also leads on the review and update of the plans for the Severn and Northumbria RBDs which lie partly in Wales and Scotland, respectively.

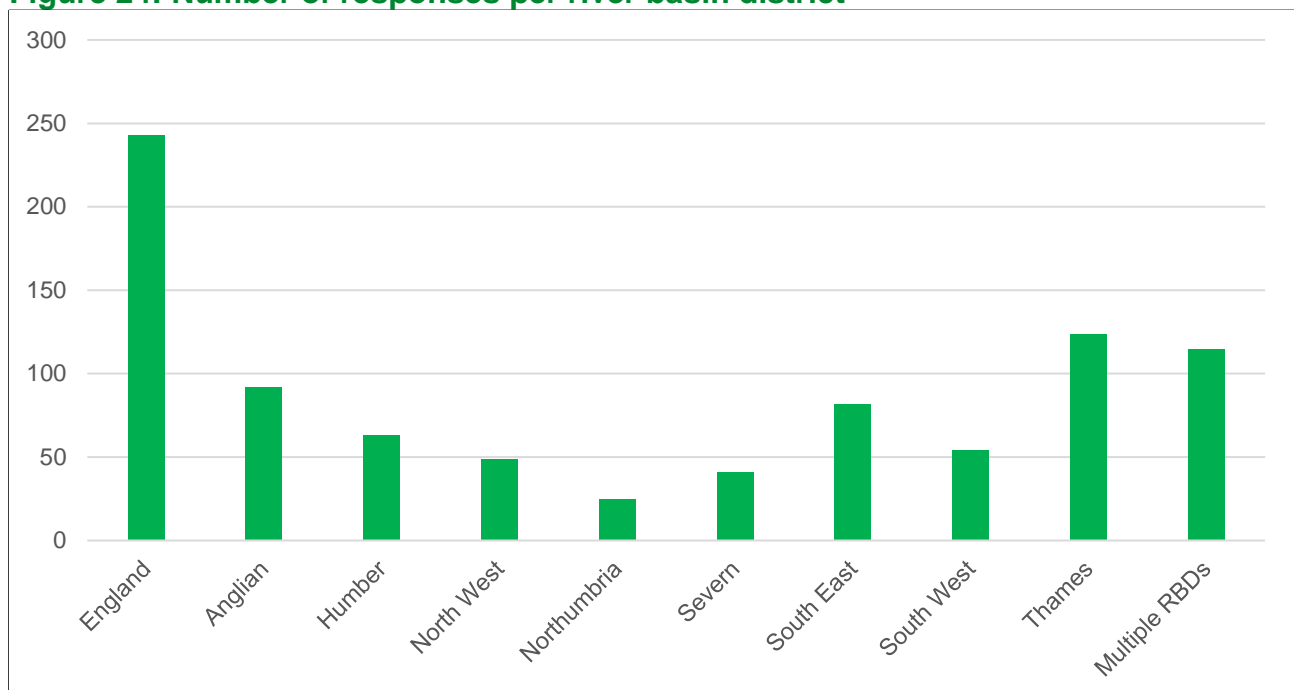
A map of RBDs in England is displayed in Appendix 6.1 or visit the [Catchment Data Explorer](#).

River basin management plans for the other two cross-border river basin districts, the [Solway Tweed](#) and the Dee, are led by the Scottish Environment Protection Agency (SEPA) and Natural Resources Wales (NRW), respectively. For information on how significant water management issues are managed in the English parts of those two river basin districts please refer to the [challenges and choices links document](#).

4.1. England (all river basin districts)

We received 243 responses for the whole of England and all river basin districts. A full list of organisations that responded to the consultation is listed in Appendix 6.3. The number of responses per river basin district is displayed in Figure 24.

Figure 24: Number of responses per river basin district

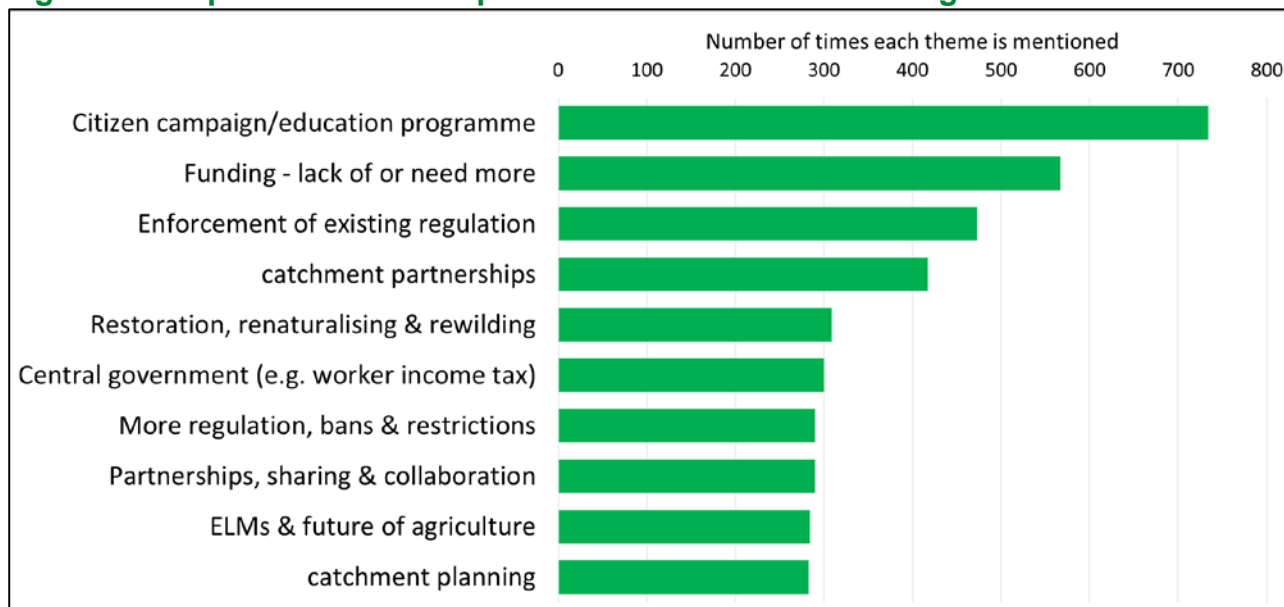


Some of the organisations that responded on behalf of the whole of England included AIC (Agricultural Industries Confederation), Blueprint for Water, British Plastics Federation, British Canoeing, Business in the Community, Commercial Boat Operators Association (CBOA), Country Land and Business Association (CLA), Energy UK, Froglife, Game and

Wildlife Conservation Trust, Golf Industry, Inland Waterways Association, Marine Management Organisation, National Sheep Association, National Trust, NFU, Pupils 2 Parliament, Royal Society for the Protection of Birds (RSPB), Royal Yachting Association (RYA), Salmon and Trout Conservation, Surfers Against Sewage, The Canal and River Trust, The Coal Authority, The Shellfish Association of Great Britain and WWF-UK.

Figure 25 summarises the top 10 themes identified by respondents to all questions combined across all river basin districts. The need for further education and the lack of funding are top themes.

Figure 25: Top 10 themes - all questions combined across England and all RBDs



4.2. Anglian

The Anglian river basin district covers 27,900km² and extends from Lincolnshire in the north to Essex in the south and from Northamptonshire in the west to the east Anglian coast. In total over 7.1 million people live and work within the district and it includes the urban centres of Lincoln, Northampton, Milton Keynes and Chelmsford. The Anglian river basin district has a rich diversity of wildlife and habitats, supporting many species of global and national importance. It is recognised as a rich region for wetland wildlife. The Norfolk Broads is Britain's largest protected wetland and is important for wintering wildfowl.

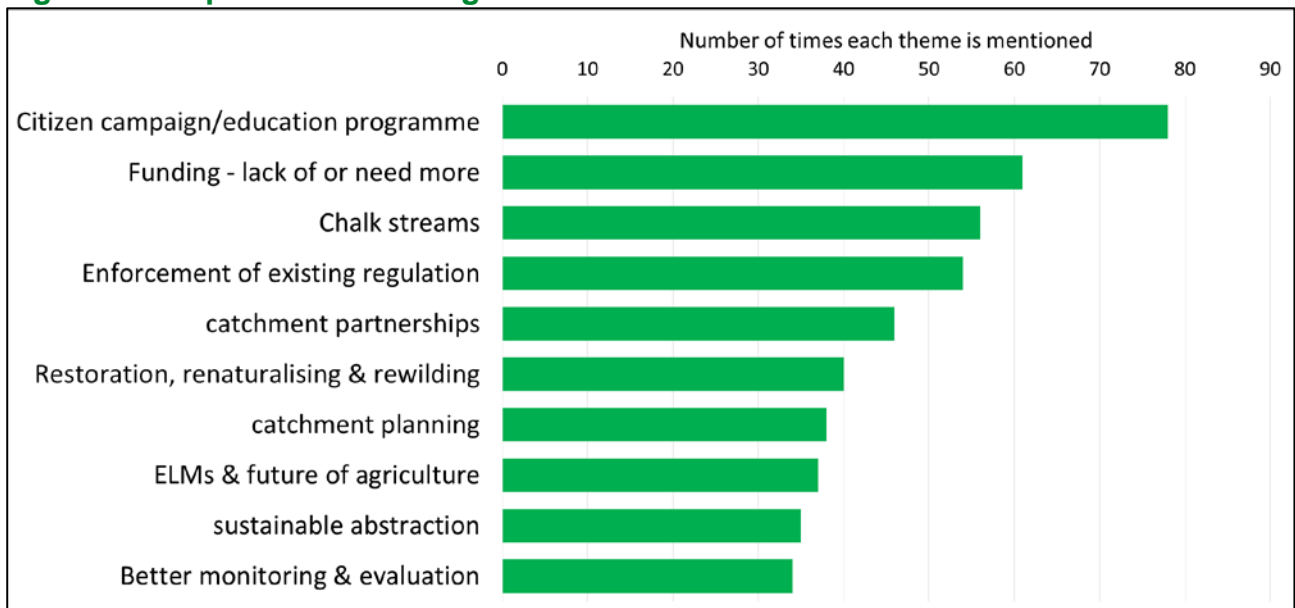
The management catchments that make up the river basin district include many interconnected rivers, lakes, groundwater and coastal waters. These range from chalk and limestone ridges to the extensive lowlands of the Fens and East Anglian coastal estuaries and marshes. The river basin district is a predominantly rural catchment, with more than 50% of land used for agriculture and horticulture. East Anglia is a tourist destination, particularly for water recreation including boaters, beach goers and anglers. The Norfolk Broads contributes significantly to the economy of the district.

Data and information for Anglian river basin district is available on the [Catchment Data Explorer](https://environment.data.gov.uk/catchment-planning).⁷

⁷ <https://environment.data.gov.uk/catchment-planning>

There were 92 respondents said that Anglian is the main river basin district that applies to them. A total of 41 organisations responded. Figure 26 summarises the top 10 themes referenced by respondents in Anglian river basin district.

Figure 26: Top 10 themes - Anglian river basin district



Those that gave permission to publish their responses included:

Affinity Water, Alby Farming Co, Anglian Water, BASG CIC, Broads Authority, Bury St Edmunds Trout Club and River Lark Catchment Partnership, Cam Valley Forum, Campaign to Protect Rural England (CPRE) SE Region Water Network, CPRE Norfolk, East of England Plastics Coalition, East Suffolk Water Abstractors Group, Environmental Landscape Partnership, Essex and Suffolk Rivers Trust, Essex County Council, Environment and Climate Action (Green Infrastructure), Essex Wildlife Trust, IDB, Lark Angling and Preservation Society, Lincolnshire Chalk Streams Project, Nene Valley Catchment Partnership, Norfolk Coast Partnership, Norfolk Mink Project, Norfolk Wildlife Trust, Peel Ports, Revlvel Association, River Ivel Protection Association, Royal Society for the Protection of Birds (RSPB), Soil Moisture Retention Ltd - SOMELCO, The Wildlife Trusts Bedfordshire, Cambridgeshire, Northamptonshire, Thetford River Group, Upper and Bedford Ouse Catchment Partnership, Welland Valley Partnership, Westrope farming Ltd.

4.3. Dee

The Dee river basin district spans the border of England and Wales, but the majority of its water bodies lie within Wales. As such, Natural Resources Wales ([NRW](#)) leads on the review and update of the river basin management plan for the Dee RBD. You can find out more about the river basin planning process in Wales by visiting the [NRW website](#).

The Challenges and Choices consultation for the Dee RBD is overseen by NRW and ran from June 2019 to December 2019. Consultation responses were also accepted by NRW to the English part of the RBD and shared with the Environment Agency.

You can find [NRW's consultations](#) for the Dee RBD on the NRW website.

You can find detailed information about English water bodies in the Dee RBD via the [Catchment Data Explorer](#).

4.4. Humber

The Humber river basin district covers an area of 26,100km² and extends from the West Midlands in the south, northwards to North Yorkshire and from Staffordshire in the west to part of Lincolnshire and the Humber Estuary in the east. In total more than 10.8 million people live and work in towns and cities within the district, with the main urban centres being Birmingham, Leeds, Bradford, Sheffield, Hull and Grimsby. The Humber river basin district has a rich diversity of wildlife and habitats, supporting many species of national and global importance. The management catchments that make up the river basin district include many interconnected rivers, lakes, groundwater and coastal waters.

The catchments range from the uplands of the Peak District to fertile river valleys of the Trent to chalk aquifers of the Yorkshire and Lincolnshire Wolds and vary from rural catchments to others heavily influenced by urban and industrial land use. The main economic sectors in the region include business services, recreation, wholesale and distribution. Manufacturing contributes to the economy along with some mineral abstraction, including a number of deep coal mines, potash mines and numerous gravel workings. Agriculture is critical for the rural economy of the district and supports natural and cultural assets that help underpin both the region's tourism and quality of life for those who live and work in the district. Data and information for Humber river basin district is available on the [Catchment Data Explorer](#).

There were 63 respondents who said the Humber is the main river basin district that applies to them. A total of 33 organisations responded. Figure 27 summarises the top 10 themes referenced by respondents in the Humber river basin district.

Figure 27: Top 10 themes - Humber river basin district



Those that gave permission to publish their responses included:

Anglian Water, Calder Catchment Partnership, Dales to Vale Rivers Network, Doncaster Council, Environment Kirklees Ltd, Greater Nottingham Joint Planning Advisory Board,

Hull and East Riding Catchment Partnership, Hull and East Yorkshire Local Nature Partnership, iCASP, Lambley Parish Council, Leeds City Council, Lincolnshire Chalk Streams Project, Lower Trent and Erewash Catchment Partnership, Moors for the Future Partnership, North Yorkshire and York Local Nature Partnership, Severn Trent Water, Sheffield and Rotherham Wildlife Trust, Soar Catchment Partnership, Tame Anker and Mease CaBA Partnership, The Aire Catchment Network, The Aire Rivers Trust, The Dearne Valley and Manvers Lake Trust Ltd, Don Dearne and Rother Network and Don Catchment Rivers Trust, Warwickshire County Council Lead Local Flood Authority, Warwickshire Wildlife Trust, Yorkshire Derwent Catchment Partnership, Yorkshire Esk Rivers Trust (Esk and Coastal streams Catchment Partnership), Yorkshire Water, Yorkshire Wildlife Trust.

4.5. North West

The North West river basin district covers approximately 13,200km². It extends from Cumbria in the north and includes parts of Staffordshire to the south, parts of North Yorkshire in the east and Merseyside to the west. In total, nearly 7 million people live and work in the North West and the district includes large urban areas such as Liverpool and Manchester. The North West river basin district has a rich diversity of wildlife and habitats, supporting many species of national and global importance. These include migratory salmon rivers with native white clawed crayfish and pearl mussel populations, and lakes containing the Arctic char and the rare vendace.

The management catchments that make up the river basin district include many interconnected rivers, lakes, groundwater and coastal waters. These catchments include, for example, lakes and rivers in the Lake District and significant sandstone aquifers used for public water abstraction. Around 80% of the river basin district is rural, with the majority of land being used for agriculture. Livestock farming is the most common rural land use, which has shaped much of the landscape. The Lake District and Lancashire coast are tourism centres and make a significant contribution to the local economy.

There are significant challenges within the North West. Many watercourses have been heavily modified, and as a result have limited ecological potential. These tend to be in the more urbanised areas such as Greater Manchester and Merseyside where growth and industrial development over many centuries has altered the natural morphology of watercourses. Other pressures on the water environment come from urban and rural diffuse pollution as well as pollution from waste water.

Data and information for the North West river basin district is available on the [Catchment Data Explorer](#).

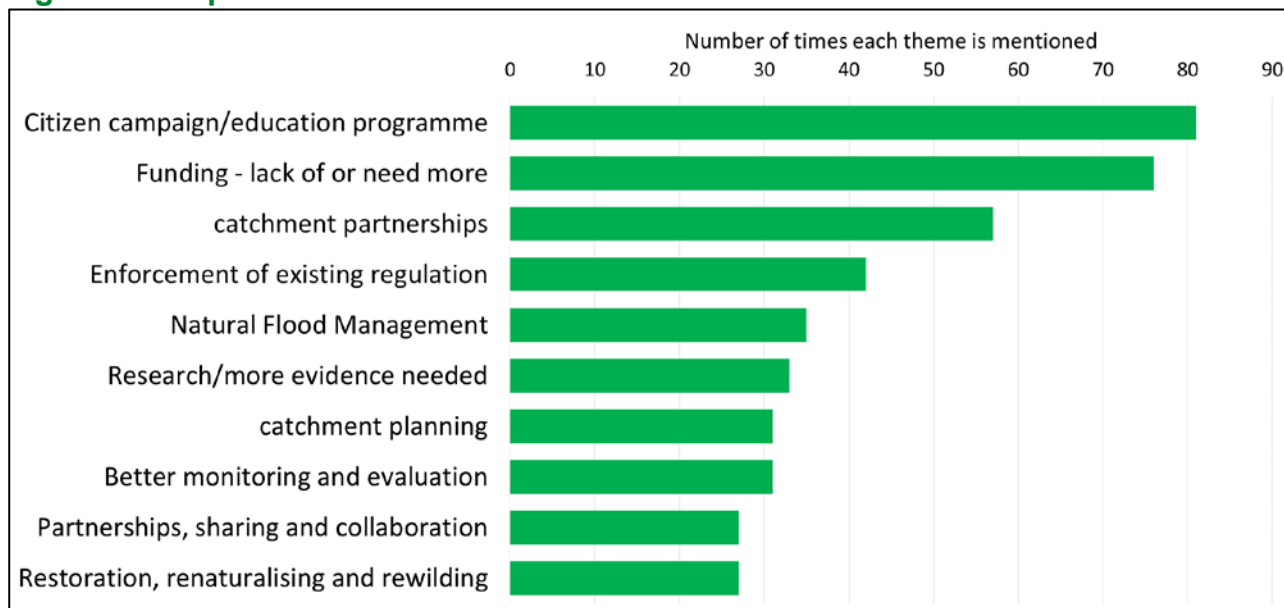
There were 49 respondents who identified the North West as the main river basin district that applies to them. A total of 28 organisations responded. Figure 28 summarises the top 10 themes referenced by respondents to the North West river basin district.

Those that gave permission to publish their responses included:

Alt Crossens Catchment Partnership, Arnside and Silverdale AONB Partnership, Becks to Bay Catchment Partnership (South Cumbria), Eden Rivers Trust, Irwell Catchment Partnership, Lake District National Park Authority, Lower Mersey Catchment Partnership, Moors for the Future Partnership, Natural Course, Newlands lane allotments, North West Coastal Forum, Peel Ports. Port business and Statutory Harbour Authority, Ribble Life Catchment Partnership, River Douglas Catchment Partnership, River Weaver Goway Catchment Partnership, Royal Society for the Protection of Birds (RSPB), South Cumbria Rivers Trust, Sustainable Brampton, The Living Lune Catchment Partnership, The Lune

Rivers Trust, The Wildlife Trust for Lancashire, Manchester and North Merseyside, United Utilities, Upper Mersey Catchment Partnership, West Cumbria Catchment Partnership.

Figure 28: Top 10 themes North West river basin district



4.6. Northumbria

The Northumbria river basin district covers an area of 9,000km², extending from the Scottish border in the north through Northumbria to Stockton-upon-Tees in the south. It includes parts of Cumbria to the west and extends to North Sea to the east. The district includes Holy Island and the Farne Islands. Approximately 2.5 million people live in the region, mainly in the areas of Tyne and Wear and the Tees Valley. The major urban centres of the district are Newcastle and Gateshead, Sunderland and Middlesbrough. The Northumbria river basin district has a particularly rich diversity of wildlife and habitats, supporting many species of national and global importance.

The management catchments that make up the river basin district include many interconnected rivers, lakes, groundwater, estuaries and coastal waters. These range from industrial urban areas in the east, to the moors, hills and valleys of the Pennines in the west. Around 67% of the river basin district is farmed or used for forestry, with a mixture of arable and livestock production including sheep, and on higher ground moorland management for grouse and forestry. The main industries are chemical, petrochemicals, food, drink, transport equipment and metal sectors. Although agriculture only makes up a small part of the regional economy it is critical element of the rural economy.

Data and information for Northumbria river basin district is available on the [Catchment Data Explorer](#).

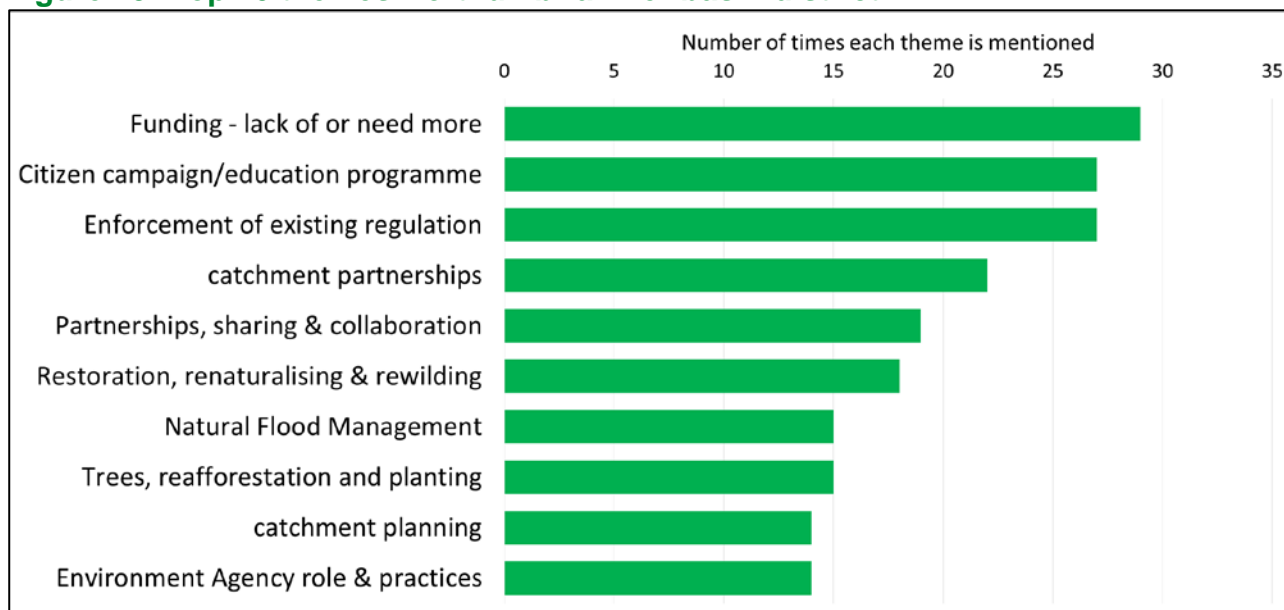
There were 25 respondents that said Northumbria is the main river basin district that applies to them. A total of 19 organisations responded. Figure 29 summarises the top 10 themes referenced by respondents in Northumbria river basin district.

Those that gave permission to publish their responses included:

Gateshead Council, Heritage Coast Partnership Durham, Sunderland and Hartlepool, Newcastle City Council LLFA, North Pennines AONB Partnership, North York Moors National Park Authority, Northumberland IFCA, Northumberland National Park Authority,

Northumberland Rivers Catchment Partnership, Northumbrian Water Group, South Tyneside Council, The Tweed Foundation, Tweed Catchment Partnership, Tyne Rivers Trust, Wear Catchment Partnership, Wear Rivers Trust.

Figure 29: Top 10 themes Northumbria river basin district



4.7. Severn

The Severn river basin district, which covers over 21,000km², spans parts of England and Wales. It extends from the Welsh uplands, through the hills of the Midlands and south to the Severn Estuary. In total over 5 million people live and work in the region and, although predominantly rural, it includes urban areas such as Bristol, Coventry, Cardiff, the South Wales Valleys and parts of the West Midlands conurbation. The Severn river basin district has a particularly rich diversity of wildlife and habitats, supporting many species of national and global importance. For example, the Severn Estuary and its surrounding area are protected for their bird populations, habitats and migratory fish species such as Atlantic salmon, shad, lamprey and eel.

The management catchments that make up the river basin district range from upland streams to slower rivers in the lowlands, and include sandstone and limestone aquifers used for public water supply in the Midlands. Around 80% of the river basin district land is used for agriculture and forestry, which shapes much of the landscape. The sector includes beef and sheep farming, large-scale dairy farms, coniferous forestry plantations and some arable and specialist horticulture. The economy of the district is supported by business, transport hubs, tourism and recreation as well as manufacturing, mineral industries and the operation of commercial ports.

Data and information for the Severn river basin district is available on the [Catchment Data Explorer](#).

There were 41 respondents who said the Severn is the main river basin district that applies to them. A total of 18 organisations responded. Figure 30 summarises the top 10 themes referenced by respondents in the Severn river basin district.

Figure 30: Top 10 themes the Severn river basin district



Those that gave permission to publish their responses included:

#3wyeswomen @3wyeswomen, Bristol Avon Catchment Partnership, Bristol Water, Cotswold Canals Trust, Dwr Cymru Cyf (Welsh Water), Gloucestershire Wildlife Trust, Revlvel Association, Severn Rivers Trust, Severn Trent Water, Shropshire Wildlife Trust, Nature Conservation NGO, Trout Fishery Manager, Warwickshire County Council Lead Local Flood Authority, Warwickshire Wildlife Trust, Wessex Water, Wye Catchment Partnership.

4.8. Solway Tweed

The Solway Tweed river basin district is a cross-border river basin that includes Scottish and English waterbodies which flow into the Solway and Tweed estuaries. The river basin is jointly managed by the Environment Agency and SEPA. The river basin has an area of around 17,500km², and incorporates the Scottish Borders, Dumfries and Galloway and parts of Cumbria and Northumberland. The river basin includes the important salmon rivers of the Tweed, the Eden and those within Dumfries and Galloway (see map in Appendix 6.1).

The natural characteristics of these waters vary considerably from upland streams running over granite rocks to the wide open mud flats of the Solway estuary. The area is home to approximately 450,000 people and important economic activities include agriculture, tourism, forestry and manufacturing. The water environment is a major part of the Solway Tweed's best known and loved landscapes, including parts of the Southern Uplands, and the Lake District and Northumberland National Parks. The river basin is largely rural and supports a wide range of internationally important habitats and wildlife with many of the waterbodies designated as Special Areas of Conservation (SAC) and Special Protection Areas (SPA).

The Scottish Environment Protection Agency ([SEPA](#)) leads on the review and update of the river basin management plan for the Solway Tweed river basin district. Please see the [SEPA website](#) for more details on their approach to river basin planning; you can find [SEPA's challenges and choices consultation](#) for the Solway Tweed RBD on their website.

There is detailed information about English water bodies in the Solway Tweed RBD on the [Catchment Data Explorer](#).

4.9. South East

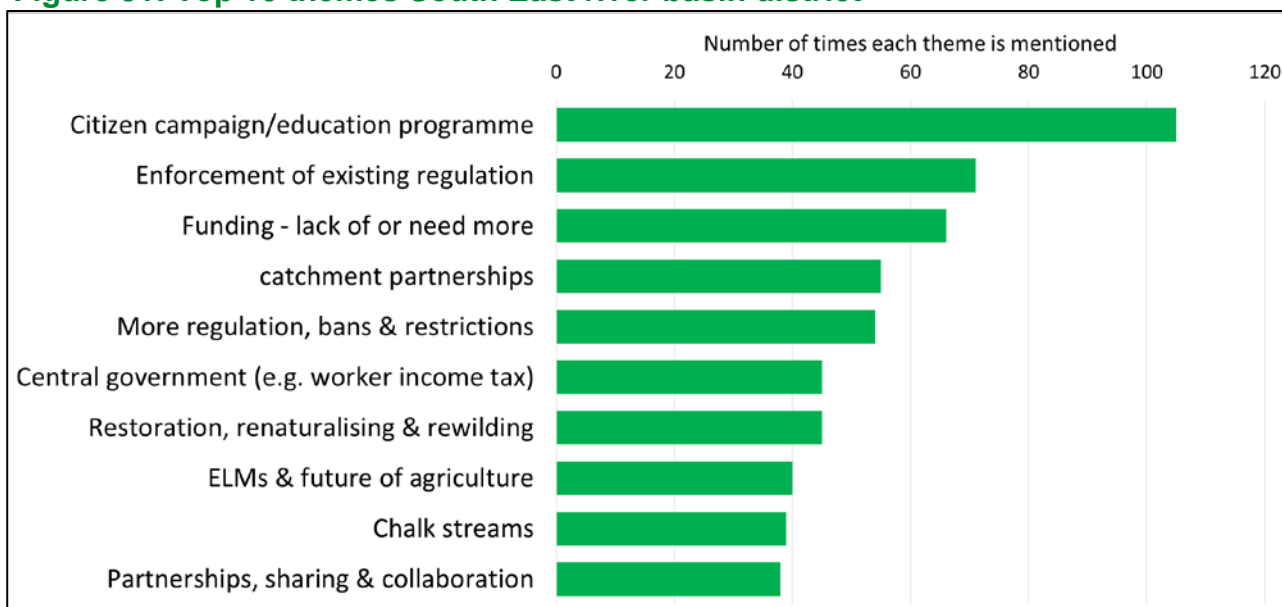
The South East river basin district covers over 10,200km² and extends from Hampshire in the west to Kent in the east. It includes East and West Sussex, the Isle of Wight and parts of Wiltshire and Surrey. In total over 3.5 million people live and work in the south east, which is densely populated and includes the major urban centres of Southampton, Portsmouth, Ashford, Brighton and Hove. The South East river basin district has a rich diversity of wildlife and habitats, supporting many species of national and global importance. These include migratory salmon rivers, native white clawed crayfish; its estuaries and coastal waters are important for shellfish, wintering wildfowl, breeding gulls and terns.

The management catchments that make up the river basin district include many interconnected rivers, lakes, groundwater, estuarine and coastal waters. These catchments range from the chalk streams of the Test and Itchen catchments to the modified rivers of the Rother catchment. Around 65% of the river basin district is used for farming, including livestock, arable and horticultural businesses. Important sectors contributing to the economy of the district include technology, manufacturing, tourism, financial services and construction.

Data and information for the South East river basin district is available on the [Catchment Data Explorer](#).

A total of 37 organisations responded. Figure 31 summarises the top 10 themes referenced by respondents in the South East river basin district.

Figure 31: Top 10 themes South East river basin district



There were 82 respondents who said the South East is the main river basin district that applies to them. Those that gave permission to publish their responses included:

Adur and Ouse Catchment Partnership, Affinity Water, Arun and Western Streams Catchment Partnership, Beverley Brook Catchment Partnership, Enable Leisure and Culture - working on behalf of Wandsworth Council, Hampshire County Council, Heathfield and Waldron Parish Council, Hogsmill Catchment Partnership, IDB, Kentish Stour Countryside Partnership, Medway Valley Countryside Partnership, Mole Valley District Council, NFU Watercress Association, PG Pleasure Boats Ltd, Portsmouth Water Company., New Forest National Park Authority, Partnership for South Hampshire (PfSH), Revlvel Association, River Ivel Protection Association, Solent Protection Society (Charity), South Downs National Park Authority, South East Rivers Trust (SERT) - Cuckmere and Pevensey Levels, South East Rivers Trust (SERT) - Loddon, South East Rivers Trust, South East Water Ltd, Southern Water, Sussex Wildlife Trust, Test and Itchen Catchment Partnership, Test and Itchen Association. Environmental and Fishing Organisation., Test Valley Borough Council, The Campaign to Protect Rural England (CPRE) SE Region Water Network, The Verderers of the New Forest, Upper Itchen Initiative, Wandle Catchment Partnership, Wealden District Council.

4.10. South West

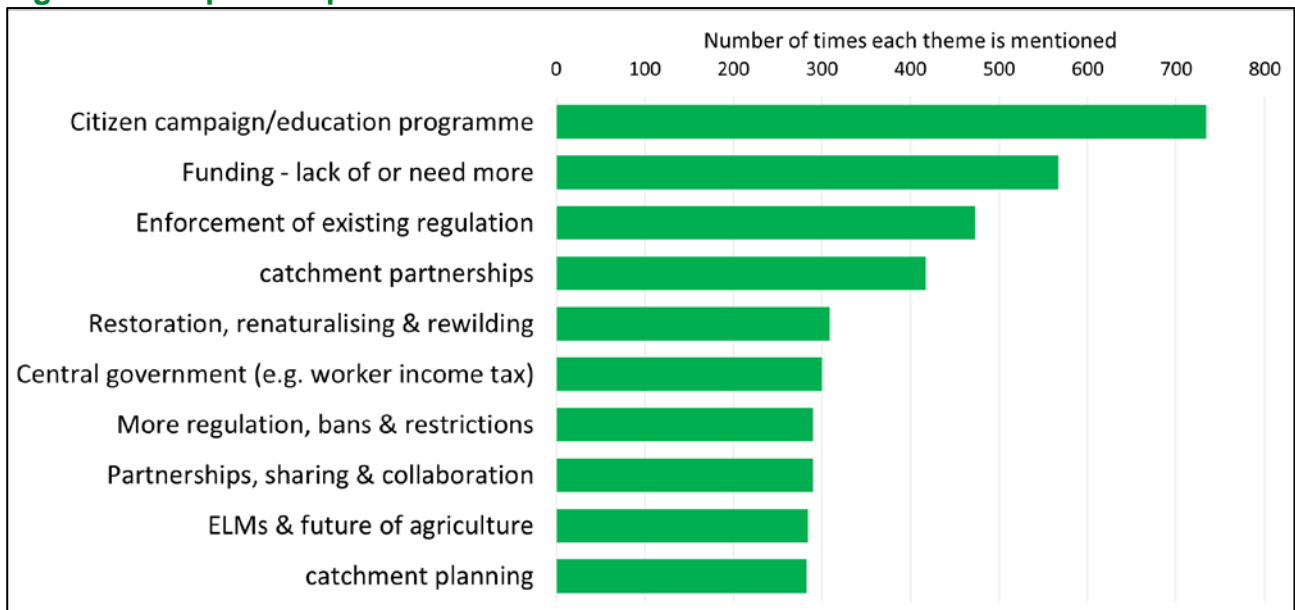
The South West river basin district covers over 21,000km². It includes Cornwall, Devon, Dorset and parts of Somerset, Hampshire and Wiltshire. The Isles of Scilly, a group of islands 25 miles south west of Cornwall, and Lundy Island are included in the district. In total over 5.3 million people live and work in the south west, with a resident population fluctuating due to seasonal tourism. The south west has the lowest population density of any English region and includes urban areas such as Exeter, Plymouth, Torquay, Bournemouth and Poole. The South West river basin district has a rich diversity of wildlife and habitats, supporting many species of national and global importance. Freshwater habitats within the river basin district are very important for wintering wildfowl, and reservoirs, rivers, estuaries and coastal water bodies support fisheries and shellfish waters. Coastal waters are also very important in this river basin district; it has over half of the country's designated bathing waters.

The management catchments that make up the river basin district include many interconnected rivers, lakes, groundwater, estuarine and coastal waters. These catchments range from the shallow aquifers and rocky rivers in Cornwall and Devon to lowland chalk rivers in Dorset. Around 80% of the river basin district is rural, with dairy farming being the most common land use. This, and the legacy of mineral extraction, shape much of the landscape. In addition, the popularity of the district as a holiday destination means tourism makes a significant contribution to the local economy.

Data and information for the South West river basin district is available on the [Catchment Data Explorer](#).

There were 54 respondents who said the South West is the main river basin district that applies to them. A total of 24 organisations responded. Figure 32 summarises the top 10 themes referenced by respondents in the South West river basin district.

Figure 32: Top 10 responses South West river basin district



Those that gave permission to publish their responses included:

CPRE Wiltshire, West country Rivers Trust, Hampshire County Council, Cornwall Catchment Partnership, Dorset Catchment Partnerships, South West Lakes Trust, Devon County Council, Exe Estuary Management Partnership, Bristol Avon Catchment Partnership, Tamar Catchment Partnership, Bristol Water, Somerset Catchment Partnership, Dorset Local Nature Partnership, Hampshire Avon Catchment Partnership, Wessex Water, NFU Watercress Association, Upper Itchen Initiative, Devon Wildlife Trust, South Devon CaBA workshop.

4.11. Thames

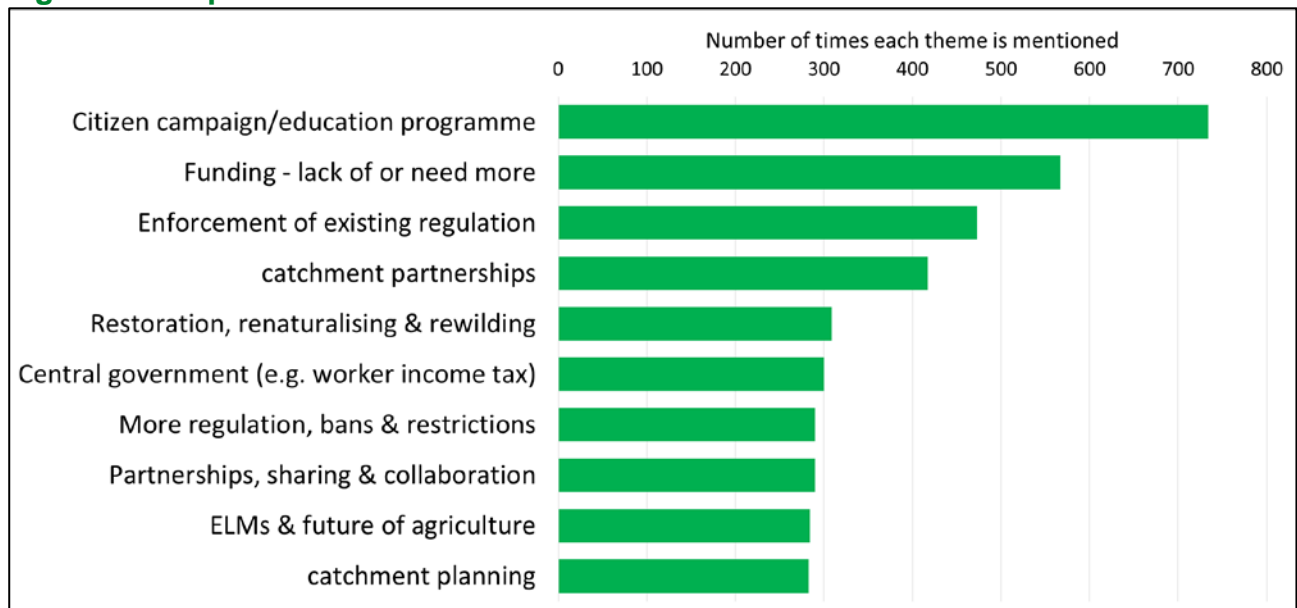
The Thames river basin district covers over 16,200km². It encompasses all of Greater London and extends from north Oxfordshire southwards to Surrey and from Gloucester in the west to the Thames Estuary and parts of Kent in the east. In total over 15 million people live in the Thames district with many more entering daily to work or visit. In addition to Greater London, other urban centres in the river basin district include Luton, Reading and Guildford. The Thames river basin district has a rich diversity of wildlife and habitats, supporting many species of national and global importance from chalk streams such as the River Kennet to the Thames Estuary and salt marshes.

The management catchments that make up the river basin district include many interconnected rivers, lakes, groundwater, estuarine and coastal waters. These catchments range from chalk streams and aquifers to tidal and coastal marshes. The river basin district is mostly rural to the west and urban to the east, where it is dominated by Greater London. Around 17% of the river basin district is urbanised and the rural land is mainly arable, grassland and woodland. The economy is dominated by Greater London and the finance sector.

Data and information for Thames river basin district is available on the [Catchment Data Explorer](#).

There were 124 respondents who said Thames is the main river basin district that applies to them. A total of 69 organisations responded. Figure 33 summarises the top 10 themes referenced by respondents in Thames river basin district.

Figure 33: Top 10 themes Thames river basin district



Those that gave permission to publish their responses included:

Action for the River Kennet, Affinity Water, Anglian Water, Berkshire, Buckinghamshire and Oxfordshire Wildlife Trust, Brent Catchment Partnership, Catchment Partnership in London, Chiltern Society, Chilterns Conservation Board, Colne Valley Fisheries Consultative, Colne Valley Regional Park: Host of the Colne Catchment Action Network (ColneCAN), Cotswold Canals Trust, CPRE Wiltshire, Crane Valley Partnership (CVP), Dacorum Environmental Forum, Enable Leisure and Culture - working on behalf of Wandsworth Council, Essex County Council, Environment and Climate Action (Green Infrastructure), Evenlode Catchment Partnership, Farming and Wildlife Advisory Group South West, FORCE, Friends of the Rib and Quin, Friends of the Westbrook and Stonebridge Pond, Faversham, Gloucestershire Wildlife Trust, Groundwork East, Hampshire County Council, Herts and Middlesex Wildlife Trust, Loddon Fisheries and Conservation Consultative, London of Borough of Enfield, London Wildlife Trust, Maidenhead to Teddington Catchment Partnership, Moo Canoes Ltd., NFU Watercress Association, North West Kent Countryside Partnership, Oxford Friends of the Earth, Oxfordshire County Council, Peel Ports, Port of London Authority, Pymmes BrookERS, Quaggy Waterways Action Group (QWAG), Ravensbourne Catchment Improvement Group, Revlvel Association, River Lea Anglers Club, River Ock Catchment Partnership, South Chilterns Catchment Partnership, South East Rivers Trust (SERT) - Loddon, South East Rivers Trust, an Environmental Charity, Southern Water, Surrey Wildlife Trust, Thames Estuary Partnership - Technical Director response, Thames Rivers Trust, Thames Water, Thames21, The Campaign to Protect Rural England (CPRE) SE Region Water Network, The Gresham Angling Society and the Greywell Flyfishers Club, Ver Valley Society, Welwyn Planning and Amenity Group, Whitewater Valley Preservation Society, Zoological Society of London (ZSL).

5. Next steps

Challenges and Choices is the second of 3 statutory consultations in the review and update of the river basin management plans. Its purpose is to describe the challenges that threaten the water environment, explores how we can all work together to manage our waters and looks at who should pay for the actions needed.

This document summarises the responses to the Challenges and Choices consultation. As a result of the coronavirus outbreak and following feedback from stakeholders, the deadline for submissions to the Challenges and Choices consultation was extended 5 months to 24 September 2020. Because of this delay, the updated final plans are unlikely to be approved and published by December 2021.

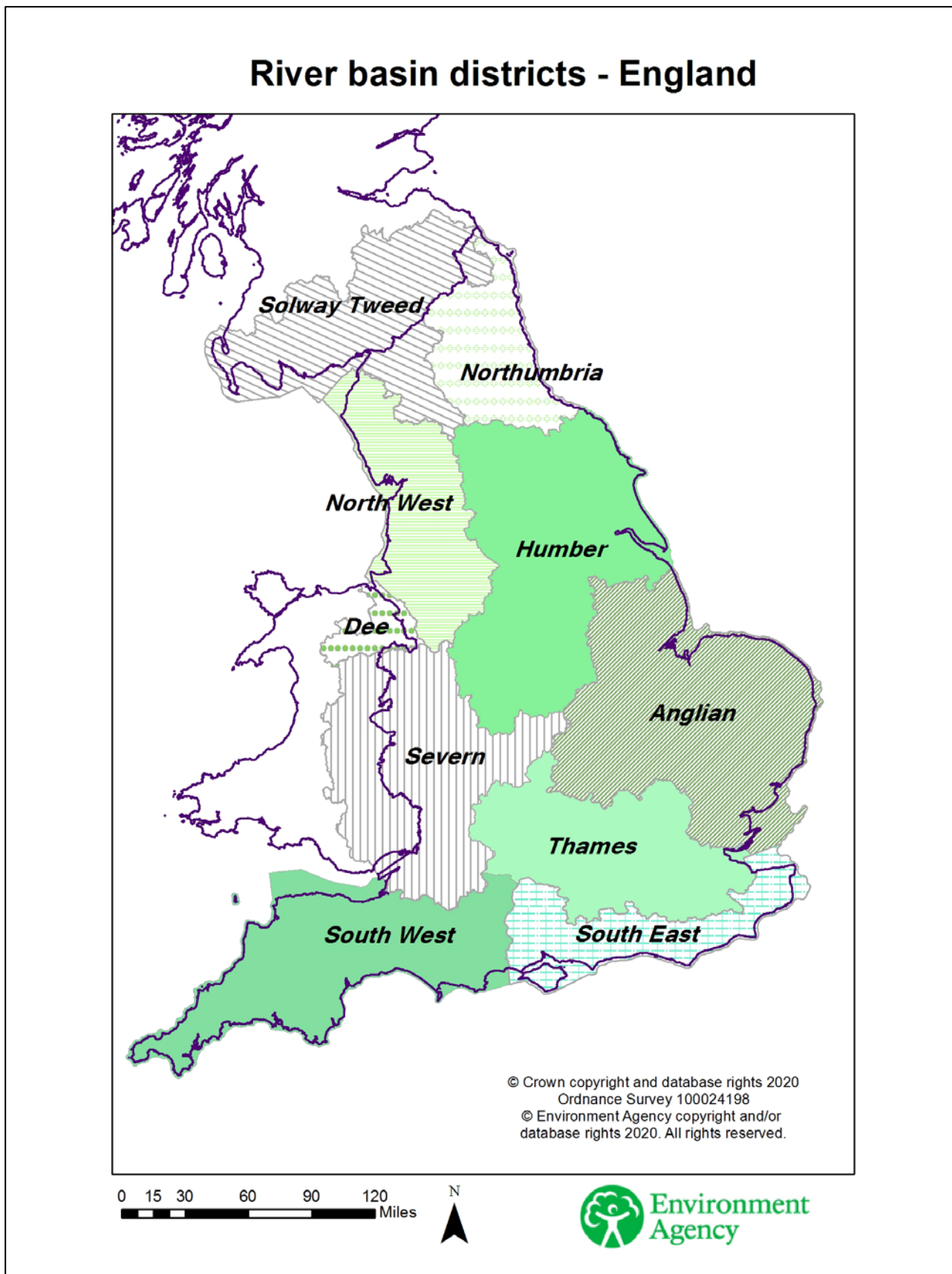
We want to ensure that we take sufficient time to consider all the consultation responses summarised in this document to shape the actions that will be set out in the draft river basin management plans. There will be an opportunity for all to comment on the recommended actions during the draft river basin management plan 6 month statutory consultation, after which the final updated plans will be submitted to the Secretary of State for approval.

We will inform you as soon as we have more certainty about the future timetable for updating the plans.

6. Appendices

6.1. River basin districts - England

This map sets out the river basin districts that are wholly or partly in England.



6.2. Representatives on the Water Leaders Group

This group comprises of national organisations from a range of sectors with responsibility for or an interest in leading the strategic management of England's waters. The objectives of the group are to:

- influence national policies and processes, through an integrated approach, to conserve, manage and improve the water environment
- steer environmental water planning to meet WFD objectives
- lead and drive action to conserve, manage and improve the water environment, promoting partnerships and empowering others to play their part
- share knowledge, good practice and lessons learnt in water management

Representative organisations on the Water Leaders Group in 2020 included:

Angling Trust

Associated British Ports

Association of Directors of Environment, Economy, Planning and Transport (ADEPT)

Association of Drainage Authorities

Association of Inshore Fisheries Conservation and Authorities

Business in the Community

Canal and River Trust

Catchment Based Approach

Chartered Institute of Water and Environmental Management (CIWEM)

Coal Authority

Coastal Partnerships Network

Committee for Climate Change

Consumer Council for Water

Country Land and Business Association

Energy UK

Forestry Commission

Highways England

International Navigation Association (PIANC)

Marine Management Organisation

Mineral Products Association

National Farmers Union (NFU)

National Trust

Natural England

Ofwat

Regional Flood and Coastal Committees

Renewable UK

Rivers Trust
Royal Society for the Protection of Birds (RSPB)
Royal Yachting Association
Salmon and Trout Conservation UK
Severn Trent Water
Shellfish Association of Great Britain
United Utilities
Water UK
Wildfowl and Wetland Trust (WWT)
Wildlife Trusts

6.3. List of all organisations that responded

Here is a list of organisations that agreed to have their responses published.

Action for the River Kennet
ADEPT's Flood and Water Management Group
Adur and Ouse Catchment Partnership
Affinity Water
AIC (Agricultural Industries Confederation)
Alby Farming
Alt Crossens Catchment Partnership
Anglian Water
Angling society
Arnsdale and Silverdale AONB Partnership
Arun and Western Streams Catchment Partnership
Association of Drainage Authorities
BASG CIC
Becks to Bay Catchment Partnership (South Cumbria)
Berkshire, Buckinghamshire and Oxfordshire Wildlife Trust
Beverley Brook Catchment Partnership
Blueprint for Water
BREAS - Brent River Environment Action Support
Brent Catchment Partnership
Bristol Avon Catchment Partnership
Bristol Water
British Canoeing
Broads Authority
Bury St Edmunds Trout Club and River Lark Catchment Partnership
Business in the Community
Calder Catchment Partnership
Cam Valley Forum
Catchment Based Approach (CaBA) National Support Group
Catchment Partnership in London
Catholic Action for Animals, Global Healing Group, St. Francis Group
CCW - The Consumer Council for Water
Chartered Institute of Ecology and Environmental Management, Professional Body
Chemical Industries Association
Chiltern Society
Chilterns Conservation Board
CIWM - Chartered Institution of Wastes Management
Colne Valley Fisheries Consultative
Colne Valley Regional Park: Host of the Colne Catchment Action Network (ColneCAN)

Commercial Boat Operators Association (CBOA)
Cornwall Catchment Partnership
Cornwall Wildlife Trust
Cotswold Canals Trust
Country Land and Business Association (CLA)
CPRE Norfolk (Campaign to Protect Rural England)
CPRE Wiltshire (Campaign to Protect Rural England)
Crane Valley Partnership (CVP)
Dacorum Environmental Forum
Dales to Vale Rivers Network - Catchment Partnership
Devon County Council
Devon Wildlife Trust
Dofygate Ltd
Don Dearne and Rother Network and Don Catchment Rivers Trust
Doncaster Council
Dorset Catchment Partnerships
Dorset Local Nature Partnership
Dwr Cymru Cyf (Welsh Water)
East Devon Catchment Partnership
East of England Plastics Coalition
East Suffolk Water Abstractors Group
Eden Rivers Trust
EDF Energy
Ellergreen Hydro
Enable Leisure and Culture - working on behalf of Wandsworth Council
Energy UK
Envireau Water
Environment Kirklees Ltd
Environmental Landscape Partnership
Esmee Fairbairn Foundation
Essex and Suffolk Rivers Trust
Essex County Council, Environment and Climate Action (Green Infrastructure)
Essex Rivers Hub (Combined Essex Catchment Partnership)
Essex Wildlife Trust
Evenlode Catchment Partnership
Evergreen Petroleum, LLC and Terra Real, LLC Louisiana, USA
Exe Estuary Management Partnership
Farming and Wildlife Advisory Group South West
Fauna and Flora International
Fidra
Food and Drink Federation
FORCE
Forest Town Nature Conservation Group
Friends of the Rib and Quin
Friends of the Westbrook and Stonebridge Pond, Faversham
Froglife
Game and Wildlife Conservation Trust
Gateshead Council
Gloucestershire Wildlife Trust
Golf Industry
Greater Nottingham Joint Planning Advisory Board
Groundwork East
Groundwork UK
Grown in Britain
Hampshire Avon Catchment Partnership
Hampshire County Council
Heathfield and Waldron Parish Council
Heritage Coast Partnership Durham, Sunderland and Hartlepool
Herts and Middlesex Wildlife Trust
Highways England
Historic England
Hogsmill Catchment Partnership
Hull and East Riding Catchment Partnership

Hull and East Yorkshire Local Nature Partnership
iCASP - Integrated Catchment Solutions Programme
Internal Drainage Board
Inland Waterways Association (membership charity)
Institute of Fisheries Management
Irwell Catchment Partnership
Kentish Stour Countryside Partnership
Lake District National Park Authority
Lambley Parish Council
Lark Angling and Preservation Society
LEAF (Linking Environment and Farming)
Leeds City Council
Lincolnshire Chalk Streams Project
Loddon Fisheries and Conservation Consultative
London of Borough of Enfield
London Wildlife Trust and Thames21
Lower Mersey Catchment Partnership
Lower Trent and Erewash Catchment Partnership
Maidenhead to Teddington Catchment Partnership
Marine Management Organisation
Medway Valley Countryside Partnership
Mineral Products Association
Mole Valley District Council
Moo Canoes Ltd.
Moors for the Future Partnership
National Sheep Association
National Trust
Natural Course
Nene Valley Catchment Partnership
New Forest National Park Authority
Newcastle City Council LLFA
Newlands lane allotments
NFU - National Farmers Union
NFU Watercress Association
NIO 333 FE Team
Norfolk Coast Partnership
Norfolk Mink Project
Norfolk Wildlife Trust
North Pennines Area of Outstanding Natural Beauty Partnership
North Wales Wildlife Trust
North West Coastal Forum
North West Kent Countryside Partnership
North York Moors National Park Authority
North Yorkshire and York Local Nature Partnership
Northumberland IFCA - Inshore Fisheries & Conservation Authority
Northumberland National Park Authority
Northumberland Rivers Catchment Partnership
Northumberland Rivers Trust
Northumbrian Water Group
Nottingham City Council
Ofwat
Our Bright Future
Oxford Friends of the Earth
Oxfordshire County Council
Peel Ports
Pesticide Action Network UK
Peterborough City Council
Plantlife
Port of London Authority
Portsmouth Water Company.
Potato Processors' Association (PPA)
Pupils 2 Parliament
Pymmes BrookERS

Quaggy Waterways Action Group (QWAG)
Ravensbourne Catchment Improvement Group
REDFA - River Eden and District Fisheries Association
Regional Flood and Coastal Committee Conservation Members
ReNew ELP
Responding on behalf of the Partnership for South Hampshire
ReVvel Association
Ribble Life Catchment Partnership
Richmond Baptist Church
River Douglas Catchment Partnership
River Ivel Protection Association
River Lea Anglers Club
River Ock Catchment Partnership
River Thames Conservation Trust
River Weaver Goway Catchment Partnership
Roding, Beam and Ingrebourne Catchment Partnership
Rowell Partnership
Royal Society for the Protection of Birds (RSPB)
Royal Yachting Association (RYA)
Salmon and Trout Conservation
SDS Limited
Severn Rivers Trust
Severn Trent Water
Sheffield and Rotherham Wildlife Trust
Shropshire Wildlife Trust
Soar Catchment Partnership
Soil Moisture Retention Ltd - SOMELCO
Solent Protection Society
Somerset Catchment Partnership
South Chilterns Catchment Partnership
South Cumbria Rivers Trust
South Devon CaBA workshop
South Downs National Park Authority
South East Rivers Trust
South East Rivers Trust (SERT) - Cuckmere and Pevensey Levels
South East Rivers Trust (SERT) - Loddon
South East Water Ltd
South Essex Catchment Partnership
South Tyneside Council
South West Lakes Trust
Southern Water
Spill control group of the British Safety Industry Federation
Staffordshire County Council
Surfers Against Sewage
Surrey Wildlife Trust
Sussex Inshore Fisheries and Conservation Authority
Sussex Wildlife Trust
Sustainable Brampton
Sustainable Soil Alliance
Tamar Catchment Partnership
Tame Anker and Mease Catchment Partnership
Test and Itchen Catchment Partnership
Test and Itchen Association - Environmental and Fishing Organisation.
Test Valley Borough Council
Thames Estuary Partnership - Technical Director response
Thames Rivers Trust
Thames Water
Thames21
The Aire Catchment Network
The Aire Rivers Trust
The Anaerobic Digestion and Bioresources Association
The Campaign to Protect Rural England (CPRE) SE Region Water Network
The Canal and River Trust

The Coal Authority
The Dearne Valley and Manvers Lake Trust
The Floodplain Meadows Partnership
The Gresham Angling Society and the Greywell Flyfishers Club
The Institute of Materials, Minerals and Mining (IOM3)
The Living Lune Catchment Partnership
The Lune Rivers Trust
The River Restoration Centre
The Rivers Trust
The Shellfish Association of Great Britain
The Tweed Foundation
The Verderers of the New Forest
The Wildlife Trust for Lancashire, Manchester and North Merseyside
The Wildlife Trusts
The Wildlife Trusts Bedfordshire, Cambridgeshire, Northamptonshire
Thetford River Group
Trout Fishery Manager (some views are as an individual)
Tweed Catchment Partnership
Tyne Catchment Partnership
Tyne Rivers Trust
UKELA (UK Environmental Law Association)
United Utilities
Upper and Bedford Ouse Catchment Partnership
Upper Itchen Initiative
Upper Mersey Catchment Partnership
Ver Valley Society
Wandle Catchment Partnership
Wardrop Minerals Management Ltd
Warwickshire County Council Lead Local Flood Authority
Warwickshire Wildlife Trust
Water Leaders Group
Waterlife Recovery East
Wealden District Council
Wear Anglers Association
Wear Catchment Partnership
Wear Rivers Trust
Welland Valley Partnership
Welwyn Planning and Amenity Group
Wessex Water
West Cumbria Catchment Partnership
Westcountry Rivers Trust
Westrope farming Ltd
Whitewater Valley Preservation Society
Wild Trout Trust
Wildlife and Countryside Link (Blueprint for Water)
WWF-UK
Wye Catchment Partnership
Wyre Rivers Trust and Wyre Waters Catchment Partnership
Yorkshire Derwent Catchment Partnership
Yorkshire Esk Rivers Trust (Esk and Coastal streams Catchment Partnership)
Yorkshire Water
Yorkshire Wildlife Trust
Zoological Society of London (ZSL)

6.4. Poem submission

The following poem was submitted by Ella aged 11.

Save our World

The ice caps are melting,
As polar bears roam,
The disappearing ice,
That they call home.

In our seas,
Is where plastic will lie,
As it fills up our oceans,
More creatures will die.

Our beautiful world,
Holds a whole animal range,
But it's getting harder for them,
Because of climate change.

Save our world,
Because can't you see,
We only have one,
There's no Planet B.

7. Glossary

A full glossary of terms can be found on the [Catchment Data Explorer](#)⁸.

⁸ <https://environment.data.gov.uk/catchment-planning/glossary>
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