

Blueprint for Water

WATER PEOPLE NATURE

ACTIONS TO RECOVER ENGLAND'S WATERS AND WILDLIFE



Wildlife and
Countryside



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FOREWORD

Create more habitat, reduce pollution, manage water more wisely, and the state of England's freshwater environment will improve – when you put it like that, it sounds simple.

Unfortunately, the reality has proven trickier. Public and private investment have fallen far short of the funds needed to create nature-rich freshwater and coastal habitats, and statutory nature designations have been too limited to safeguard what remains from harm.

Chemicals and effluent continue to pour almost unabated into our waterways, with capital carrots and regulatory sticks proving insufficient to deal with ongoing pollution from diffuse sources like farming and point sources like sewer overflows. Meanwhile, over-abstraction continues to multiply the adverse effects of pollution, and growing demand, climate change and insufficient water efficiency measures mean that many rivers and the habitats they support are in ecological peril.

So many pressures weigh on the freshwater environment that stronger strategic direction and regulation from Government are essential.

This Blueprint sets out Wildlife and Countryside Link's recommendations for speedy decisive action required of Government to improve our waters and wetlands.

It proposes powerful new obligations for water quality and site condition – we need our finest freshwater sites in good condition, and clean water standards

across the rest of the freshwater landscape. It proposes greater resourcing for enforcement and regulatory compliance, as well as support and advice to help land managers change – we need to create a culture of chemical and pollution reduction, backed by a credible promise that polluters pay. It proposes swift measures to reduce the amount of water taken from the environment, and a renewed focus on opening up equitable access to the freshwater environment – people and wildlife need blue corridors criss-crossing our landscape with life.

So complex are the pressures affecting water that the problem may feel intractable. But so integral to our environment are our rivers, lakes, streams, ponds and wetlands that our nature and climate goals will surely be unattainable unless we finally fix our freshwater environment.

With clear obligations, enforcement and efficiency, it will be possible to restore our freshwater world. Businesses and the public alike are ready to take action, with the right regulation and support in place. As the Government shapes its spending plans and renews the rulebook on land management and environmental regulation, now is the time to ensure that a clear focus on water flows through them all.

We commend these recommendations to Government.

*Richard Benwell,
CEO, Wildlife and Countryside Link.*

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Raft spider – Ross Hoddinott/2020VISION
Water Beetle – Jack Perks / WWT
Juvenile Fish – Linda Pitkin/2020VISION
Dipper – Andy Rouse/2020VISION

EXECUTIVE SUMMARY

Our freshwater systems are the backbone of our environment, their wellbeing intrinsically connected to the wellbeing and economic vitality of our communities, and to the health and persistence of habitats and wildlife – put simply, they are vital to both people and nature.

Yet, in England, water is also the lens through which many in society experience the collision of the climate and biodiversity crises. We need to bring clean water back into the landscape, treating wastewater to higher standards and reducing pollution from agriculture and industry, prosecuting where there are breaches in regulation. Our blue spaces are fragmented, and degraded, and our freshwater biodiversity is declining to extinction. We increasingly experience flooding, pollution and drought. Regulation and investment have so far failed to stem these declines, depriving society of the benefits that our water environment could and should provide. It should not be like this. Our freshwater landscapes should be alive and ubiquitous; full of cascading rivers, burbling streams, mosaics of spongy peat bogs and lush wetland, tranquil lakes and gleaming ponds. These waters and wetlands are embedded in our culture; vast, iconic, treasured, beautiful and intimate.

Science, and observation on the ground, shows that small-scale conservation has been a sticking plaster that has largely failed to stem declines. To bring about

nature’s recovery, we must think big, and be driven by evidence, considering entire catchments and all parts of the water environment. Our waters and wildlife cannot cope with continued mismanagement.

Our ‘water future’ needs to be one of vibrant, much bigger and better-connected aquatic landscapes, full of clean water and thriving wildlife. From protected sites, right through to those in our farmed countryside and towns and cities, waters and wetlands must be better cared for, expanded, and created, to secure the benefits – and delights – that a healthy water environment should deliver.

This is our Vision for the freshwater environment. To achieve this, we must:

- Recover Biodiversity through large-scale, strategic habitat restoration, protecting and enhancing biodiversity hotspots such as our internationally valuable chalk streams.
- Drive Down Pollution with an effective and fully resourced monitoring and enforcement regime, driven by ambitious targets to tackle pollution and address the water quality crisis.
- Re-think our relationship with water to build a sustainable relationship with our blue spaces, delivering climate resilience, water security, and health and well-being benefits for our communities.

Action for England’s waters and wildlife

RECOVER BIODIVERSITY	DRIVE DOWN POLLUTION	RE-THINK OUR RELATIONSHIP WITH WATER
Adopt a new Blueprint for the water environment – strategic habitat restoration and creation on a large scale	Build an effective enforcement regime – properly-funded, transparent and comprehensive	Prioritise blue spaces – for the wellbeing of people and nature
Enhance biodiversity hotspots – restore to health our Protected sites	Set new ambitions for clean water – considering biodiversity needs across all habitat types	Adapt to a changing climate – using nature-based solutions to reduce the impacts of extreme weather
Restore Chalk Streams – protect and restore their unique biodiversity	End sewage and wastewater pollution – through holistic regulation and investment	Secure water for nature and people – by using it wisely
		Embed improved catchment governance – by supporting a Catchment-based approach

A NEW BLUEPRINT FOR ENGLAND'S WATERS

Scan the week's headlines and you will invariably find an article about water. The damage caused by extreme floods. The risk that water supplies will run dry. The million-plus hours for which untreated wastewater has been discharged into rivers. The pesticides and microplastics found in waterways. The ubiquitous chemicals that have caused literally all monitored waters to fail quality standards. The invasive species threatening native wildlife. All of this contributes to the crisis in freshwater biodiversity¹, whether it's the continuing decline of much-loved and charismatic species like water vole and Atlantic salmon, or our failure to stem the degradation of lakes, rivers and ponds. 13% of UK aquatic wildlife is at risk of extinction² and many other species are in sharp decline. From source to sea, our water environment is in a very poor state and exacerbated by climate change, its decline does not seem to be slowing³.

The Government's nature strategy Biodiversity 2020 has expired. The EU-derived Water Framework Directive has seen us focus on the health of rivers, lakes and estuaries, but it has failed to drive major necessary changes to land-use, sewage treatment infrastructure and water use, or provide a focus on the tens of thousands of smaller streams, ponds and lakes which are a critical reservoir for freshwater life, and are vital for the ecosystem services provided by water.

There are some positive headlines too, of local action leading to progress. But as existing strategies and approaches come to their end, we need a step change in ambition for our water environment in order to reverse the decline of species and habitats by 2030.

The Covid-19 pandemic has also served to highlight the importance of the natural environment for our mental and physical health. Nature is restorative⁴. Yet those venturing into the outdoors are confronted with a depleted, degraded and polluted environment.

Here, we provide a Blueprint for action which would start improving our much-loved aquatic environment and its wildlife, whilst also providing major ecosystem services, health & well-being and economic benefits across the country, in the face of a changing climate.

1 By freshwater biodiversity we mean the species of river and wetland environments, found in estuaries, rivers, streams, headwaters, lakes, ponds, ditches, flushes, floodplains and wetland habitats of all sizes and types.

2 The State of Nature Report, 2016

<https://www.rspb.org.uk/globalassets/downloads/documents/conservation-projects/state-of-nature/state-of-nature-uk-report-2016.pdf>

3 Bending the curve of global freshwater biodiversity loss – an emergency recovery plan, 2020.

https://wwfint.awsassets.panda.org/downloads/bending_the_curve_of_global_freshwater_biodiversity_loss_an_emergency_recovery_plan.pdf

4 Studies cite positive associations between blue space exposure and mental health and physical activity

<https://www.sciencedirect.com/science/article/abs/pii/S1438463917302699>

A VISION FOR **CONNECTED, WILD, SPECIES-RICH CLEAN WATER AQUATIC LANDSCAPES**

Our aquatic environment is fragmented, polluted and degraded. It is both abused, and under-utilised. Science, and observation on the ground, shows that small-scale conservation, that fails to treat the root cause of problems, has been a sticking plaster that has largely failed to stem declines. We need to think big, and be driven by evidence, considering entire catchments and all parts of the water environment.

We need to reduce water use, and limit abstraction in water-stressed catchments. We need to bring clean water back into the landscape, treating wastewater to higher standards and reducing pollution from agriculture, prosecuting where there are breaches in regulation. Our waters and wildlife cannot cope with continued mismanagement. To bring about nature's recovery the future needs to be one of vibrant, much bigger and better-connected aquatic landscapes that are resilient to climate change. We need to incentivise the reversion of low-lying former floodplain, wetlands and high-risk land that is currently farmed, as farming these areas intensively is not sustainable.

Habitat restoration and creation of water habitats is needed within much widened river corridors and across better connected wetland landscapes. From source to sea, we need to give rivers the space they need to move and to generate new wetland habitat, using measures such as beavers to create the habitat complexity that our wetlands have lost. From enhancing protected sites through to working in our farmed countryside, we need to ensure that existing wetlands, including ponds and headwater wetlands, are better cared for, and we need to be ambitious and ensure that there is even more clean-water wetland habitat in the wider countryside.

By working with nature in this way, huge benefits would be reaped:

- improved connectivity through the restoration of fragmented river corridors, increasing biodiversity and supporting the recovery of many declining species
- reduced flooding due to increased floodplain storage and connectivity, and improved water

quality through removal of much agricultural and wastewater pollution

- elevated carbon sequestration within wet woodlands, fens, meadows and saltmarsh, buffering our society and economy from the impacts of climate change; and
- wider societal benefits and savings to the public purse through health gains.

Science tells us that such an approach would work, and the approach is simple. Rivers, lakes, ponds and other wetlands are the jewels of the landscape, and they also benefit people and our economy, revitalising towns and cities and connecting people to nature. We need to act now before it is too late to save them.

To achieve this future requires action on three fronts: We must

Recover Biodiversity. Drive Down Pollution. Re-Think Our Relationship With Water.

And to deliver these three actions, we must consider some overarching principles in all that we do. These principles recognise that our water environment is part of a bigger ecological system where we must consider long-term, multiple benefits. We must:

- Contribute to achieving net zero, through using nature to increase carbon mitigation
- Adapt to climate change and increase the resilience of communities and natural systems
- Consider nature-based solutions as the first priority when designing solutions, recognising their multiple benefits for climate, nature, and people.
- This will deliver a nature positive world, where thriving ecosystems and nature-based solutions support future generations, the diversity of life and play a critical role in halting runaway climate change.



WHO PAYS FOR ALL THIS?

Put simply, we must all pay. The costs of implementing the changes needed to protect the water environment are large. The asks set out here are of Government; we need to see changes in policy and approaches that enable us to transform the fate of our waters and wetlands. But that is not to say that the responsibility to fund all of these changes must also lie with Government. The costs cannot sit with a single sector, and nor should they, because we will all benefit from the provisions of a healthy water environment. Rather, Government must ensure that the processes and mechanisms that exist in this sphere allow us to draw together different types and sources of finance to best effect.



An example:

Significant government funding enabled flood alleviation schemes to reduce flood risk for many living and working throughout the Thames Valley. However, there are remaining areas where flood defences are not feasible. The Thames Valley Flood Scheme is therefore exploring a catchment-wide approach to alternative ways to manage flood risk.

Options being investigated include large scale floodwater storage, and natural flood risk management measures such as creating wetlands, improving soils, altering crop management and planting trees, to help retain or slow the flow of water. Where traditional defences are uneconomic, these catchment solutions bring wider benefits – and so can draw in wider sources of funding from a range of partners and beneficiaries. These include:

- The creation of publicly accessible places for recreation, such as paths and open spaces – supported by green infrastructure funding
- The creation of new habitat – through land management payments such as E.L.M. or developer funding for biodiversity net gain
- The reduction of water entering sewer systems, reducing the risk of knock-on sewer flooding – funded by water companies

The scheme's aims recognise this, the vision being to reduce flood risk, enhance the environment, support sustainable economic growth, and improve health and wellbeing for residents.

Establishing and supporting such approaches – which recognise and factor in the opportunity to deliver multiple benefits by blending funds from multiple partners – are a key way in which Government can facilitate the recovery of England's waters.

RECOVER BIODIVERSITY



Image Credit: Mark Hamblin/2020VISION

From babbling brooks to expansive estuaries, and tiny temporary ponds to glistening lakes, our waters can appear to be lush, thriving wildlife habitats – but in reality, our water environment is in a devastated state. Rivers run dry, laying bare how much we extract to supply homes and businesses. Downpours wash farmland soils, agricultural chemicals, urban pollutants, and raw sewage into our watercourses. Phosphates and nitrates promote algal growth that kills aquatic plants and the insects and fish that rely on them. Non-native plants, animals and pathogens add to the pressures, predating or outcompeting, and invading new areas as our climate shifts. Our waters are not healthy, and it is biodiversity that bears the brunt. Globally, freshwater species are **declining more rapidly**⁵ than any other group and in the UK this decline is embarrassingly steep^{6,7}. Even our treasured and unique chalk streams, for which England holds 85% of the global total, now often run brown instead of clear, or sometimes have no water at all.

In this rainy nation, water is **the bedrock of UK biodiversity**, determining the location, extent and health not just of rivers, lakes and ponds but of peat bogs, wet woodlands, fens, wet heaths, wet grasslands and reedbeds. Water is the key to connectivity, forming a wetland mosaic linking drier habitats to wet, and catchments to the coast, allowing species to

move through the landscape. Freshwater biodiversity underpins productive, efficient and stable ecosystems, with species delivering key ecosystem services such as enhancing water quality.

Yet, in England, the proportion of waters attaining ‘Good Ecological Status’ – a target that considers the basic ecology of rivers, lakes, estuaries, coastal waters, and the groundwaters that support them – stands at a paltry 16%. Despite decades of conservation efforts this figure remains stubbornly low, attesting to a need for fundamental change. A more coherent and ambitious approach – a step change – is clearly needed.

New River Basin Management Plans are being developed to set out how we can turn around the fate of our waters, but we need them to be bold and to be delivered. Previous plans have focussed attention on rivers and large lakes, but freshwater wildlife also relies on floodplains, swamps, flushes, ponds, small lakes, headwaters and other wet features across a catchment. Targets in the Government’s promised Future Nature Strategy and in River Basin Management Plans must drive action for the **entirety of the freshwater wetland landscape**, as part of ambitions which bank and go beyond the building blocks that the Water Framework Directive has provided, and see us taking action at catchment and landscape scales.

5 Freshwater biodiversity, IUCN <https://www.iucn.org/theme/species/our-work/freshwater-biodiversity>

6 Decline in freshwater fish, The Guardian <https://www.theguardian.com/environment/2021/feb/23/global-freshwater-fish-populations-at-risk-of-extinction-study-finds>

7 Decline in Pond Biodiversity, Freshwater Habitats Trust <https://freshwaterhabitats.org.uk/no-let-up-in-the-net-loss-of-nature-and-that-includes-ponds-too>

1) Adopt a new Blueprint for the water environment

The need: Strategic habitat restoration and creation on a large scale, that embraces the entire freshwater network.

The future: *“Water is a key thread through Local Nature Recovery Strategies, with the restoration and creation of water and wetland habitats contributing to 30% of the country being well managed for nature by 2030. Plans are future-proofed, accounting for warming scenarios so that habitats and species are not left ‘stranded’. Intensive farming takes place away from rivers and wetlands, and land use change has seen sites that repeatedly polluted the aquatic environment reverted to wetland or converted to extensive, low-intensity systems like floodplain meadows. For the most important waterbodies, whole catchments have been de-intensified. The principle of restoring natural function has underpinned habitat restoration; wherever possible wetlands have been given the time and importantly space to recover, with trees and other vegetation left to grow naturally and managed sustainably. This approach has created catchments with restored rivers, connected floodplains, and enhanced freshwater habitats, enabling wildlife to thrive and allowing adaptation to a changing climate.”*

The path to that future: In the short-term, Government should:

- USE the Environment Bill’s target-setting framework to ensure that water and wetlands are central to delivering the Government’s pledge in the G7 Nature Compact to halt and reverse declines in nature by 2030. Ambitious legally-binding targets should be set:
 - for the percentage of freshwater and coastal environments that are designated and well-managed for nature.
 - for the extent, condition and connectivity of nature-rich freshwater and coastal habitat outside the protected area network.
 - to reverse the decline in species diversity and abundance, and achieve Favourable Conservation Status for water – and wetland-dependent species.
- ENSURE that delivering biodiversity benefits for waters and wetlands is a strategic outcome of environmental land management schemes, informed by priorities identified through the protected area networks and Local Nature Recovery Strategies. E.L.M. ‘tests and trials’ must overcome barriers to landscape-scale water and wetland restoration.
- DEVELOP mechanisms to enable the pooling of funding to support the above, including from business and developers.
- FUND nature’s recovery by setting targets within the Future Nature Strategy and River Basin Management Plans, committing to their delivery through the Comprehensive Spending Review. This should include the creation or restoration of at least 250,000 ha. of priority wetland habitat in England⁸, with a strong focus on habitat creation in river valleys (headwaters, floodplains, and pond creation). A more strategic approach to land use in floodplains through ELM and the planning system could incentivise these actions which would deliver for nature, flood risk, water quality and access.

The small print: Local and strategic priorities – existing sites of freshwater biodiversity importance, and those with the potential to contribute to species and habitat recovery – should be identified through Local Nature Recovery Strategies (LNRS) which should underpin the establishment of delivery programmes for the restoration and creation of wetlands and waters, forming Floodplain Wetland Mosaics. Those tasked with leading LNRS development, such as Local Authorities, must be equipped to do so, working with catchment partnerships, and updated River Basin Management Plans must reflect the ambition of local partners articulated within Catchment Plans and LNRS, as well as national target and priorities. Long-term site management must also be funded to secure nature’s recovery, including through the E.L.M. scheme.

⁸ The Natural Capital Committee identified a good economic case for expanding the extent of wetland areas by 100,000ha https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/517006/ncc-research-invest-natural-capital-final-report.pdf to deliver the goals of the 25 Year Environment Plan, and that in 2020, 200,000ha of priority freshwater habitats were in poor condition. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/933803/ncc-final-response-25yr-env-plan.pdf

2) Enhance biodiversity hotspots

The need: Protected sites that fulfil their potential.

The future: “A flagship multi-billion-pound investment in our network of protected areas has put water and wetland sites on a trajectory to good condition. ‘On-site’ issues were tackled quickly, by voluntary or regulatory means, and appropriate habitat management has now long been underway. External pressures like diffuse water pollution are being tackled at catchment, national or international level, over longer timeframes, with the Office for National Statistics charting the growth in natural capital that results.

The path to that future: In the short-term, Government should:

- **DIRECT** investment, provide guidance and enforce regulation to bring all water and wetland designated sites into good condition by 2030. These sites should be the centrepiece of a Nature Recovery Network contributing to the 30% of land well managed for nature.
- **DEVELOP** and commit to a delivery plan to implement the actions needed to tackle the more complex, off-site issues impacting water and wetland protected sites.
- **ESTABLISH** an invasive non-native species (INNS) Inspectorate to stem the flow of invasive species into the country. INNS have been recorded at >98% of England’s Natura 2000 sites⁹



Image Credit: Jack Perks Photography



Image Credit: STEVE NICHOLLS / WWF

The small print: Natural England’s IPENS Project (Improvement Programme for England’s Natura 2000 sites) set out a strategic approach to securing the long-term health of the national site network, providing a cautious estimate of £1.7 billion to restore degraded sites and generate far more significant ecosystem service and economic benefits. River management, water pollution and hydrological functioning were identified as the costliest issues to tackle, and a larger investment may be needed to offset further deterioration since the recommendation was made. Action will also be required on those SSSIs which are not also designated as SPAs or SACS.

⁹ Natural England (2015) Understanding impacts of invasive non-native species on protected sites <http://publications.naturalengland.org.uk/file/5113005538803712>



Image Credit: Carl Sayer

3) Restore Chalk Streams

The future: *“Bespoke new targets drive the protection and restoration of our precious and unique chalk streams, bringing water companies, the environmental sector and communities together to enact transformative, lasting, sustainable change that the nation can be proud of. Looking back, target development is recognised as the marker which stopped ‘the beginning of the end’ for chalk streams.”*

The need: Action to protect and restore the biodiversity of all chalk streams.

The path to that future: In the short-term, Government should:

- DIRECT the Environment Agency & Natural England to develop and adopt new, bespoke targets for chalk streams that will drive chalk stream recovery by 2030.
- DIRECT the water industry to significantly reduce abstraction from chalk streams through the next price review period 2025-2030 (including to zero).

The small print: Revised chalkstream targets should be developed within the architecture of the WFD so that they remain a regulatory driver and should build on existing foundations. UKTAG should review invertebrate classifications, and Government should consider setting ‘High’ status as the agreed target for all chalk streams within River Basin Management Plans.

DANGER
LIABLE TO FLOOD
WITHOUT WARNING



DRIVE DOWN POLLUTION

With no waterbodies in overall good condition in England and the UK consistently performing the worst in comparison to European countries, the scale of the challenge in reducing pollution levels could feel insurmountable. Yet we can draw useful lessons from the results others have achieved and make positive change.

As a start, we must get the basics right. A renewed focus on the assessment of chemicals, and regulatory compliance for all pollutants, needs to be underpinned by increased investment in the range of government funded and voluntary sector schemes that support farmers and other land managers. Polluters must be held accountable with fines raised by the Environment Agency and other civil bodies channelled into a fund to restore the water environment from source to sea, (recognising the impact of our polluted rivers on our bathing beaches and marine habitats). We must also recognise the role of best practice land management on our reduction of chemicals in our waters. Farmers and other land managers need to be supported, especially via E.L.M. Schemes, to reduce their reliance on pesticides and other agri-chemicals, and therefore reduce the amount which ends up in our waterways.

Awareness of the scale of pollution upon our landscapes and Protected Areas is growing and there is little sympathy for those causing damage. However, there is support for investment that goes beyond the baselines for the benefit of biodiversity and society. Water company customers consistently get behind proposals to enhance the environment rather than opting for cheaper bills, and the scope for the Environmental Land Management Scheme to support farmers that deliver gains for water quality is significant.

In our urban environments reducing water pollution can most benefit people with low access to green spaces, helping to narrow health and other inequalities.

To achieve this, more holistic approaches are needed. For example, an integrated approach to managing surface water will reduce the amounts entering the sewerage system; this will involve new legislation to manage planning and developments, changes to run-off from highways, and better management of agricultural land to improve soil structure and increase water retention and infiltration. Purposely-designed treatment wetlands can play a role here, filtering nutrients and pollution and providing habitat for nature.

Beyond just minimising pollution, we can also create areas of clean water habitat – by extending clean headwaters downstream, working from the source to sea to restore floodplains, and actively creating new ponds and wetlands. All of these wetlands can also help to slow floodwater, and provide much needed blue space for local communities

We want to see strong ambition underpinned by reliable, consistent and long-term monitoring and openly available data, which can be used to target improvements to where they will have the greatest benefits.

1) Build an effective enforcement regime

The need: A properly-funded, transparent and comprehensive monitoring and enforcement regime, that drives compliance up and pollution down.

The future: *“All categories of pollution incidents from all sectors are decreasing, because of effective legislation underpinned by advice, training, – and importantly active, effective enforcement that means the polluter truly has to pay. When pollution does occur, it is less damaging than in the past because new chemicals are better regulated, meaning that the most damaging do not make it to market.”*

The path to that future: In the short-term, Government should:

- CONDUCT a review into the adequacy of current chemical monitoring to influence Environment Bill water targets and beyond, and fund environmental regulators to monitor as per the review’s recommendations.
- DIRECT the next phase of the Water Industry Chemical Investigation Programme CIP4 to consider emerging priorities for the water environment, and require all outputs to be open-access.
- ENSURE that all new chemicals likely to reach the water environment, such as pesticides, are assessed for their direct, in-combination and derivative impacts (including sub-lethal effects), and are controlled by precautionary practices including bans, restrictions, incentives & advice.
- FUND the enforcement of regulatory standards and implementation of the polluter pays principle across all sectors.
- DRIVE compliance with agricultural diffuse water pollution regulations by establishing a comprehensive advice and training regime to support land managers, complementing enforcement work.
- FUND a national monitoring cooperative that complements statutory monitoring and supports compliance. This would focus on biodiversity-critical smaller streams, ponds, small lakes and ditch networks, making data available to all practitioners.

The small print: Government’s Environment Bill will create a duty on ministers across Whitehall to be guided by five internationally recognised environmental principles when making policy. One, the Polluter Pays Principle should drive the enforcement of current regulation as well as the development of new targets and ambitions, such as around the future management of Combined Sewer Overflows. Another, the Precautionary Principle, should see controls on pollutants informed by monitoring or research that considers the impacts of chemical mixtures, and of sub-lethal effects upon wildlife (e.g. affecting growth or reproduction). The Rivers Trust is calling for investment in a monitoring cooperative which could help inform the targeting of enforcement activities and increase understanding of pollution issues amongst stakeholders.



Image Credit: Ross Hoddinott/2020VISION

2) Set new ambitions for clean water

The need: Ambitious clean water targets that drive improvement for all waters.

The future: *“Water quality improvements are driven by a renewed focus on land management that sees improvements far beyond the regulatory baseline – and for key habitats, delivers improvements beyond basic targets. Sustainable soil management is achieving significant changes in water quality across whole catchments and in coastal/marine environments, and increases the resilience of farm businesses. Advice, training and funding have enabled farmers to prioritise the management changes that will have the most impact, guided by the protected site network and priorities identified in LNRS.”*

The path to that future: In the short-term, Government should:

- **DEVELOP** clean water targets under the Environment Bill’s target-setting framework that build on and exceed the WFD’s requirements and drive holistic catchment-wide action to improve water quality, against which the Office for Environmental Protection and the public will be able to hold Government to account. Such a target will also benefit the public as water users.
- **INCLUDE** gateway requirements and specific options in all three E.L.M. schemes that go beyond regulatory baselines and basic good business practice and encourage farmers to achieve clean water in watercourses and waterbodies across their holdings. Options should range from basic soil health measures to large-scale habitat creation through arable reversion.

The small print: More ambitious water quality targets should be developed and delivered within the WFD framework, extending the range of waterbodies monitored and managed and going beyond the not-so-good ‘Good’ status to deliver wider benefits. Clean water in target habitats such as headwater streams, ditches and ponds could be indicated by achieving high status for key chemical and ecological criteria. Farming Rules for Water and other basic measures, if properly promoted and enforced, will provide the foundation which then permits E.L.M., investment from the water industry, and from other sectors to build on this baseline. For agriculture, E.L.M. must play a parallel role to the Water Industry’s National Environment Programme (WINEP), funding enhancement to waters and water-dependent protected habitats in a targeted, strategic way.

3) End sewage and wastewater pollution.

The need: Strategic management of sewage.

The future: *“Pollution from sewage has decreased year on year as a more strategic approach to wastewater management has bedded in, and more waterbodies receive no sewage effluent at all. Innovation and research combined with nature-based solutions have enabled the water industry to improve rural wastewater treatment works and decrease reliance on Combined Sewer Overflows where, previously, investment was not feasible. Customers benefit from a cleaner environment, improved public health, and affordable bills.”*

The path to that future: In the short-term, Government should:

- SET a wastewater target through the Environment Bill's target-setting framework that drives Water Companies to phase out the release of raw sewage from CSOs, delivered through Drainage and Sewerage Management Plans.
- REQUIRE the water industry to upgrade (or even remove) Wastewater Treatment Works on all high-status or protected rivers, delivered through the WINEP.
- FAST TRACK the mapping and replacement of septic tanks discharging into surface waters, with a focus on high risk areas such as protected sites.
- FUND a national campaign, delivered in partnership with environmental NGOs locally, to change consumer behaviour with regard to water use and the way people dispose of items and harmful chemicals down drains and toilets.

The small print: A holistic approach to wastewater management should cover CSOs, wastewater treatment works and septic tanks – private sewerage is poorly regulated but where environmental damage is identified, extending public sewerage to replace private systems must be considered. Long-term ambitions to prevent damage from storm overflows are positive but activity towards this goal must now be implemented at pace. Nature-based solutions should be standard approaches for water companies. For example, Sustainable Drainage Systems (SuDS) and treatment wetlands can reduce surface water inputs into sewerage systems, increasing sewer capacity whilst also improving the quality of surface water.



Image Credit: British Canoeing

RE-THINK OUR RELATIONSHIP WITH WATER



The recent pandemic has re-connected people with nature and their local surroundings. Accessible, nature-rich green and blue spaces for all levels of society are hugely valued for the multiple benefits they provide, from the health and wellbeing benefits of recreation (enjoyed by over ten million wild swimmers, anglers, & paddlers¹⁰, plus walkers, dog walkers, and urban families seeking respite from their houses and flats), to reduction in flood risk, increased resilience from climate impacts through carbon sequestration and adaptation to extreme weather events, and the economic and social value they add to local neighbourhoods.

It has been clear for some time that our current relationship with water, and nature more broadly, has become unsustainable and we are experiencing the fallout of decades of misuse. Unsustainable abstraction, poor catchment management, disconnection of floodplains, and inefficient usage have all contributed to the current appalling state of our water environment.

We all have a role to play in re-thinking our relationship with water. We must see leadership from Government, regulators, local authorities, farmers, and the water industry, and a key role for local Catchment Partnerships that bring together communities to ensure a resilient future for nature and people.

¹⁰ Sport England's Active Lives Survey recorded nearly 4m open water swimmers in '19-20. There are over 1m freshwater anglers in England and Wales, and over 5m people took part in paddling activities in 2020.

1) Prioritise blue spaces

The need: Policy and funding mechanisms that deliver more blue spaces for people and nature.

The future: “Authorities no longer turn their backs on the urban waterways, lakes and ponds that remind us of the pre-urban world, transforming them from polluted and unsafe places into thriving blue and green corridors accessible to local communities and thriving with local wildlife. Nature reaches into the most deprived places and enables communities to engage with wild spaces on their doorstep. ‘Rain gardens’ and other sustainable drainage features are employed to reduce urban runoff and flood risk, and the cleanest water is captured in new high quality ponds, small lakes and wetlands, greening the fringes of urban waters, and extending nature’s reach into the hearts of our communities. Communities themselves help to shape, deliver and care for these improvements.”

The path to that future: In the short-term, Government should:

- ACCOUNT for health and wellbeing benefits of blue spaces in our planning system to drive investment from infrastructure, levelling up, and inequality funding. People in deprived areas & those with higher proportions of minority ethnic groups have less access to nature.
- WORK with the Office for Health Promotion to add a blue prescribing focus when rolling out green prescribing for mental health, post-pilots. This should include preventative as well as curative measures.
- ENSURE Local Nature Recovery Strategies and other policy tools provide for additional benefits, such as access to nature-rich blue spaces for health, recreation, wellbeing and culture, particularly close to where people live, in addition to habitat and species priorities for nature’s recovery.
- FINANCE programmes to remove barriers and connect people with nature and ‘blue spaces’, including through volunteer programmes, and work with schools, sports, and socio-economic groups who do not usually have access to nature.

The small print: Local Authorities have a key role to play in driving improvements to all waters as owners of Local Nature Recovery Strategies, but in particular in urban areas through regeneration strategies, individual planning decisions and opportunities to steer the biodiversity net gain provisions to be delivered in relation to development. Changes to planning processes must promote these wider opportunities to deliver spaces that cater for the needs of the water environment and society. And these improvements will reap further dividends, as nature-connectedness studies have shown that by building new relationships with nature, we improve the wellbeing of both people and the rest of the natural world.



Image Credit: Katrina Martin/2020VISION

2) Adapt to a changing climate

The need: Use of nature-based solutions to reduce the impacts of extreme weather on the environment and people.

The future: *“As extreme weather increased with climate change, we developed holistic policies on land and water management, no longer lurching from flood to drought to flood again purely through poor management. Actors now approach these issues proactively, recognising them as ‘two sides of the same coin’.*

We began to manage soils to absorb water, stopped building on floodplains (making substantially greater areas available for floodwater storage), re-vegetated key headwater catchments to hold water upstream for longer, enhanced the watercourses and catchments that provide our drinking water, and have increased coastal habitat to reduce risk from sea level rise, storm surges and coastal erosion. Though the frequency, duration and severity of floods and droughts have changed due to climatic warming, these proactive actions have increased the resilience and buffering role of nature, so that people are less impacted by their occurrence and effects.

As well as benefitting society, we employ specific nature-based solutions for specific nature gains, making smarter choices which don't simply assume that natural techniques will automatically deliver for biodiversity. We undertake large-scale wetland protection, restoration and creation to tackle a range of issues including flood risk, water quality, water storage and carbon storage.”

The path to that future: In the short-term, Government should:

- UPDATE the Treasury Green Book by 2022 to ensure that policies, programmes and projects across all departments are appraised for their scope to reduce health harm from climate change (such as by funding blue spaces for wellbeing), and to increase resilience to the flood-drought cycle (drought is not currently mentioned).
- FUND the recovery of soil health (and other nature-based solutions) via the E.L.M. Scheme, reducing the impact of droughts and floods on farmers and society.
- EMPLOY blended finance and other investment mechanisms to support wetland habitat restoration and creation for climate mitigation and adaptation, (without prioritising carbon at the expense of biodiversity). A green finance strategy must balance these benefits and effectively pool disparate funding streams.
- REQUIRE water companies to spend much of their £1bn annual National Environment Programme on delivering nature-based solutions for people and nature's recovery.
- SET a target for ecosystem resilience within the water industry through Defra's Strategic Policy Statement to Ofwat & EA's review of the Water Industry National Environment Programme.

The small print: The country is facing an increasing adaptation gap, as plans for adaptation to climate change are not keeping pace with projected risk. Nature-based solutions can help us adapt to the pressures of a changing climate, but UNEP's Adaptation Gap report¹¹ found that NbS lack funding proportional to the role they play in adaptation. If they are to help us adapt without simply burdening biodiversity, their efficacy must be established through policies to support good design, use, and management. Their strengths and weaknesses must be properly recognised and their impacts monitored. We must continue to grow the research evidence base to inform how NFM can be most effectively deployed, such as through EA's Innovation Fund. The role of small installations in managing smaller-scale floods is quite well evidenced but their role in reducing the impacts of (rather than preventing) larger-scale events is not yet established. Hence to address the large-scale issues that flooding presents, emphasis in NFM delivery should be on big land-use changes, for example in headwaters and on floodplains, driven by the Government's Flood Strategy. The private sector will also play a key role in delivering nature-based solutions. For example, within the water industry, an ecosystem resilience metric should be developed to drive action, supporting the resilience of the habitats which provide our water supplies.

11 United Nations Environment Program – Adaptation Gap Report 2020 Executive Summary
https://wedocs.unep.org/bitstream/handle/20.500.11822/34726/AGR_en.pdf?sequence=35



Image Credit: Linda Pitkin/2020VISION

3) Secure water for nature and people.

The need: Wise use of water.

The future: *“We had recognised that our fundamental water infrastructure was broken and that a radical shift was needed in how we valued, managed and invested in water. The water needs of the environment now drive decisions by the industry, recognising that a naturally resilient water environment is a sound investment. Long-term planning is employed to secure water supplies for people and nature so that damaging over-abstraction is ended”.*

The path to that future: In the short-term, Government should:

- USE the Environment Bill to ensure that remaining damaging abstractions can be tackled from 2022, that abstraction does not increase above current levels, and that Domestic Per Capita Consumption (PCC) is reduced to below 100 litres/per person per day by 2040 to reflect the scale of the threat to the environment and water supplies. The Bill’s Water use targets must reflect these ambitions.
- PLACE the environment at the heart of decisions about abstraction by ensuring that flow rates meet ecological needs, now and in the future. Robust monitoring of water levels and usage must inform abstraction planning, and Government must set the agenda, requiring regional cooperation, and enabling investment in water storage solutions from large-scale to domestic that collectively meet national water needs and deliver environmental benefit.
- EMPLOY secondary legislation to remove restrictions on water metering. Companies employing compulsory metering must take account of affordability for vulnerable customers.
- AMEND policy and regulation to drive increases in water efficiency, for both new developments and existing housing stock. This must include the introduction of water labelling requirements, stricter efficiency standards for water efficient development in the Future Homes Standard & National Planning Policy Framework, and the promotion of rainwater harvesting and greywater reuse.

The small print: The Water Resources National Framework has identified significant future challenges to water security and the resilience of the natural environment. The need to adapt to increasing demand and to manage supply issues that result from climate and population pressures, means that action must get underway now if we are to avoid the well-publicised ‘jaws of death’. This will require close working across a number of Government priorities and departments, tackling water demand through a variety of means, whilst also continuing to reduce leakage in line with existing targets.



4) Embed improved catchment governance.

The future: “Catchment Partnerships continue to be a lynchpin in the enhancement of waters, wetlands and whole catchments, delivering against ambitious Catchment Plans which have broad support. Partners have worked to benefit biodiversity, society, and to put business on a more sustainable footing, with Government core funding leveraged many times over, since funders and investors recognise the true value of the water environment. The approach has extended to the coastline, accomplishing the ‘source to sea’ ambition of collaborative catchment management.”

The need: Sustained support for collaborative catchment and coastal management.

The path to that future: In the short-term, Government should:

- TREBLE the funding for catchment partnerships, including through the Catchment Based Approach (CaBA), and secure multi-year funding.
- EXTEND the principles of CaBA to the coast by supporting development of a Coastal Based Approach (CoBA) that recognises the interdependence of coastal waters and inland catchments.

The small print: Key to success is strengthened funding secured on a multi-year basis allowing for longer-term planning and greater leveraging of matched funding. There is significant scope to widen the remit of Catchment Partnerships to deliver against multiple integrated objectives for biodiversity, water quality and quantity across wetland habitats. The partnerships could be key to the implementation of Local Nature Recovery Strategies. However, this needs to be supported financially, especially in these key early years, to avoid CaBA’s collapse.



Blueprint for Water, part of Wildlife and Countryside Link, is a unique coalition of environmental, water efficiency, fisheries and recreational organisations that come together to form a powerful joint voice across a range of water-based issues.

Wildlife and Countryside Link is a coalition of 61 organisations working for the protection of nature. Together we have the support of over eight million people in the UK and directly protect over 750,000 hectares of land and 800 miles of coastline.

Thank you to the following organisations and partners for their support:

