## Health and the environment

This has been an extremely hard year for everyone...

...and people have thought about health and environment more than perhaps they would in another year.

The pandemic led to an increased appreciation of nature and the water environment.

Hilary McGrady, the Director General of the National Trust, said the recovery must respond "to what the lockdown has clearly shown: that people want and need access to nature-rich green spaces near where they live."

I know most of you will now be thinking about Christmas and how to manage the environment and health of your families.

But, before I speak about all of that, I'd like to start with a public safety message.

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The recently released — and excellent — film collaboration between David Attenborough and WWF "Too Big to Fail", features footage of Greta Thunberg leading a march through Bristol in February, alongside footage of climate events from around the world.

In February 2020, there was also a significant climate event happening not far from Bristol up the River Severn.

It was the fifth wettest calendar month since 1862.

154.9 millimetres of rainfall fell, 258 percent of the average for the month.

During the flooding, Environment Agency flood schemes protected almost 130,000 properties.

Work to recover started immediately and during the coronavirus lockdown, the Environment Agency developed safe ways of working.

This enabled more than 20,000 inspections, and 90 percent of schemes across the country to continue.

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We are ready this winter.

As well as making sure our rivers are clear from debris and our flood risk assets are maintained, we have been carrying out incident response training.

We have 250 high volume pumps available, and 6,500 trained staff across the country, including 314 trained flood support officers.

But, while the Government doubles the flood and coastal erosion budget to £5.2 billion over the next 6 years...

...We have to be upfront: our work only reduces the risks: no amount of investment will ever prevent flooding altogether.

You are still at risk. So here's what you can do.

- You can check your flood risk by putting your postcode into the Government's website, and you can sign up for flood warnings. These warn of the risk of flooding from rivers, the sea and groundwater. You can choose to be alerted by phone, email or text when flooding is expected.
- And, you can download a "Prepare, Act, Survive" plan so you'll know how to act when there's a flood warning.

I urge you to do these things.

They will give you a better chance to save what can't be insured — and they could save your life.

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This conference is called "Time to Change: Putting the Environment at the Heart of Social and Economic Wellbeing".

So I'd like to give you an example of how the Environment Agency is doing that.

Along the North-West coast, we carried out work to improve water quality, in partnership with organisations including the National Farmers' Union, water companies, and local councils.

As we were doing this, we found that communities on the Fylde coast did not feel connected to local beaches, seeing them as tourist destinations only.

As a result, the 'LOVEmybeach' programme was launched in 2018, engaging local residents and schools, and was prescribed by local doctors.

So many people have been connected to beaches that it has now been used as a model for planned programmes elsewhere in England, and across Europe.

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Investing in a healthy environment makes sense.

It makes medical sense, because it will mean better health for all.

It makes economic sense, because it will save the NHS billions of pounds.

It makes socio-political sense, because those who live in poor environments are also those who have the worst health and the lowest incomes.

And, it also has a multiplier effect on environmental benefits.

Natural England recently highlighted emerging evidence that people who feel more connected to nature are more likely to take action for the environment and for the climate.

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Yesterday, the government published its 'Path to Sustainable Farming' document, laying out plans for farming once we leave the EU's Common Agricultural Policy.

It's good to see more detail around the ambition to incentivise sustainable farming practices, create habitats for nature recovery and establish new woodland to help tackle climate change.

High quality green and blue spaces also offer significant benefits to health.

But, these benefits are unequally distributed across society.

In September, we released a State of the Environment report on health, people and the environment.

It shows that:

In England, people in the most affluent areas enjoy as much 19 years more in good health than those in the most deprived.

City communities with 40 percent or more BAME residents have access to 11 times fewer green spaces locally than mainly white communities.

And, children are spending less time in nature, with 15 percent of children not visiting the natural environment at all in 2018/2019.

Air pollution is the biggest environmental threat to health in the UK.

The health costs of particulate matter and nitrogen dioxide are approximately £22.6 billion every year.

Noise pollution is responsible for more life-years lost than lead, ozone or dioxins.

The main source is road traffic, costing around £9 billion annually through health costs, productivity losses, and chronic severe annoyance.

While flooding has minimal physical health impacts in the UK, it has significant impacts of people's mental health, leading to depression, anxiety and PTSD.

During flooding between November 2019 and February 2020, the Environment Agency protected 130,000 properties, saving an estimated £590 million in mental health costs.

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In the summer, the Prime Minister said we should build back "better, greener,

and faster", so this IS a moment to reset.

Studies show that a strong emotional and cognitive relationship with nature is linked to an increased sense of fulfilment.

The RSPB reported that three quarters of people said nature has been an important source of relief during the COVID-19 lockdown.

Recent evidence suggests that living in or near to greener environments reduces mortality rates and improves mental wellbeing.

A study of over 19,000 people in England looked at the effects of spending 2 hours or more a week in or around open green spaces.

This showed a significant increase in the likelihood of people reporting good health or high wellbeing.

Proximity to the coast has been found to increase overall health, and is associated with lower levels of being overweight.

The social benefits of physical activity in England have been valued at an estimated £2.18 billion a year, but this could be higher if more people had access to good places to exercise in.

Personally, I try to get out cycling as much as I can on weekends, and I have started blocking out an hour in my diary at lunchtime to get some time outside in daylight over the winter months.

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Two weeks ago, the Prime Minister published his ten point plan for a green industrial revolution, mobilising £12 billion of investment, and creating and supporting up to 250,000 jobs.

The Environment Agency is helping many aspects of the plan like:

- developing our regulatory role to meet new demand in hydrogen, as it begins to replace natural gas in domestic supply,
- working with the nuclear industry on regulating existing sites and on nuclear new builds,
- and, working to ensure carbon capture and storage can be deployed while protecting people and wildlife.

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To deliver the government's ambitions for the environment, more finance is essential.

With imminent changes to our public health system — and the creation of the National Institute for Health Protection — it is more important than ever to recognise that every sector has a role to play in improving the environment and health.

Point 10 in the plan is innovation and finance.

We are working to help the private sector scale up activities that help the natural world.

In the summer — with Defra, the Esmée Fairbairn Foundation and Triodos Bank UK — we launched four projects that will:

- restore wetlands:
- create natural flood management;
- reduce nitrate pollution;
- restore peatlands in the Pennines;
- and, deliver sustainable financial returns.

Caroline Mason, Chief Executive of Esmée Fairbairn Foundation and a member of the Environment Agency's board, said: "If we understand the models that can make money and can be funded through private capital, we can raise additional money for nature and make sure that public and philanthropic funding goes where it's most needed."

A great example of this in action is the Ribble Rivers Trust who recently announced investment from Brew Dog to plant trees.

This provides health and wellbeing benefits while offsetting carbon.

In early 2021, the Environment Agency will be launching the government's Investment Readiness Fund and welcoming applications.

The fund will support the development of natural environment projects that can generate revenue from ecosystem services and attract repayable investment.

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Early in this speech, I gave an example of how the Environment Agency's work is putting the environment at the heart of social and economic wellbeing, and I'd like to end with one.

The Salford flood scheme reduces the risk of flooding from the River Irwell to almost 2,000 homes and businesses.

It also provides a boost to local wildlife populations by including an urban wetland habitat.

The flood embankments have been planted with 10 hectares of wildflower habitat, to attract species such as ladybirds, moths, butterflies and bees.

The scheme not only brings flood risk and wildlife benefits, but also leisure and amenity benefits to the local community.

With exactly 2.5 kilometres of new footpath skirting the periphery, runners and cyclists can enjoy the improved scenery...

...and the links to existing footpaths that now provide a green route to and from the centre of Manchester.

Nature based solutions help to achieve the ambitions of the government's 25 Year Environment Plan.

Examples like this one show that if we consider investments through an environmental lens, we can also increase social and economic wellbeing.

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The end of the tunnel is in sight for the coronavirus pandemic, but the climate emergency is ramping up.

As climate shocks overlap, we need to get better at joining up economic, environmental, health and social agendas.

This will not only help society's ability to manage future threats, it will increase economic opportunities in the long run.

Now should be a time to change, and the Environment Agency will continue to do everything we can in 2021 to ensure it is.

I wish you all a very merry Christmas.

Thank you.