

## Environmental Audit Committee inquiry into the Future of Chemicals Regulation after the EU Referendum

*Written submission by Blueprint for Water*

*January 2017*

### 1. Blueprint for Water Coalition

1.1 Blueprint for Water is a unique coalition of environmental, water efficiency, fisheries and angling organisations and a campaign of Wildlife and Countryside Link. Blueprint is calling for the Government and its agencies to set out the necessary steps to achieve “sustainable water” by 2021.

### 2. Executive Summary

2.1 Increasing evidence has shown that wildlife is negatively affected by chemicals, with a suggested 27% of total ecosystem losses due to chemical pollution. Through the REACH regulations, tens of thousands of chemicals are managed, in order to prevent adverse effects on the health of humans and wildlife. If the option to remain part of the REACH system is not transposed into UK legislation, alternative options would likely require significant Government investment and could result in a weaker system and a more onerous approach for industry.

2.2 Additionally, there are other regulations which aim to protect and enhance the environment with regards to chemicals, including the Water Framework Directive (WFD), an essential piece of legislation for improving water quality. The WFD must be retained and enhanced to ensure better monitoring and detection of chemicals and other pollutants within our water systems to improve ecosystem resilience. Furthermore, as a signatory to the Sustainable Development Goals (SDGs), the UK has committed to ensure that chemicals are used and produced without causing adverse effects on human health and the environment. Without a robust approach to chemicals regulation, this goal and others within the SDGs may not be met.

2.3 Therefore, Blueprint for Water recommends the following:

- Government ensures that the UK remains signed up to REACH once we leave the European Union,
- Other EU legislation also needs to be transposed into UK law through the Great Repeal Bill to ensure effective control of chemicals, including the Water Framework Directive.
- The EAC considers how to best ensure the safe production, use and disposal of pharmaceuticals (both human and veterinary)
- Additional monitoring of chemicals is required which will put the UK on the forward foot and ensuring the health of our environment and ourselves.

### 3. Transposing REACH

3.1 The easiest and most realistic approach to incorporating REACH into UK legislation is to sign up to the UK abiding by REACH with any future agreement with the EU. This option



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should be negotiated so that the UK maintains a say in the decision making process and allows full access to the data. In addition it will not result in any weakening of legislation. Regardless of the process the UK chooses, UK exporters of chemicals to the EU will still have to register those chemicals with ECHA and in doing so will be bound by REACH and other EU legislation. A stand-alone system could see UK companies having to put products through parallel assessment processes; a burden which is likely to limit markets or stifle innovation in UK Industry. This option seems to be the most pragmatic and least burdensome approach. The Great Repeal Bill would need to enable REACH to continue to apply as domestic law upon repeal of the European Communities Act. All detail would remain within REACH and updated by EU processes as appropriate.

- 3.2 The UK Government would struggle to establish the expertise and resources to enable a successful equivalent to REACH to be developed in the UK. If the UK was looking to develop a better system than REACH, it would have to put in significant investment. REACH manages tens of thousands of chemicals and to do the equivalent job in the UK should not be underestimated. For example, there are over 140,000 chemicals in the EU market and the UK generates over 6,000,000 tonnes of hazardous waste (data early 2000s). New chemicals are being produced all the time which will have to be assessed for safety. The US Environmental Protection Agency adds an average of about 700 new chemicals per year to the Toxic Substances Control Act inventory. In addition, REACH provides incentives to find safer alternatives and a level playing field across Europe.
- 3.3 REACH is not perfect but it is the best system out there. A recent review of REACH estimated the benefit at €150-500 million in 2017, which over the next 25 years adds up to €2,800-9,000 million<sup>1</sup>. Any copying of another system will require civil service capacity to design and test the new system and could result in weaker standards and regulation, resulting in increased health and environmental risk. For example, the US public has higher exposure to chemicals such as bromated flame retardants compared with EU. Given the budgetary cuts experienced by DEFRA over the last few years, establishing a system such as that in the USA, which puts the burden on the regulator rather than on industry, would not be pragmatic unless long term funding was made available to ensure such a system could be run effectively. Whether the regulator be DEFRA or a separate new regulator, a funding mechanism would be needed which does not result in environment or health budgets being cut as these are already overstretched. In addition, any new chemicals agency would need to have additional support and resources from both the HSE and DEFRA.
- 3.4 The importance of good quality data is fundamental. Without it, we risk developing a system which does not safely regulate chemicals. Without signing up to REACH itself, it will be very difficult to obtain the data on health and safety necessary to establish a UK chemical's agency. Even if we "copy" REACH, we will not have access to the same data as much of this data is confidential and owned by companies and therefore not free to use.
- 3.5 Any weaker equivalent process to REACH will lead to uncertainty and will have negative environmental and human health impacts. The UK does not want to revert to being the

<sup>1</sup>[http://ec.europa.eu/environment/chemicals/reach/pdf/background/impact\\_on\\_environment\\_report.pdf](http://ec.europa.eu/environment/chemicals/reach/pdf/background/impact_on_environment_report.pdf)



dirty man of Europe once again - evidence highlights that the British public do not want weaker environmental regulation. In addition if chemicals regulation were to be weakened this would place a financial burden on other industries. For example, whilst the current system regulates the release of these harmful chemicals in the first place, without a system equivalent to REACH, the cost of providing drinking water would increase as water companies would use more energy and chemicals removing pollutants, in order to maintain current high standards of drinking water. Estimates indicate that £300–£400 million in capital expenditure was made by UK water companies to reduce nitrate levels in ground and surface water from 2004-2009. Without REACH, a further 15% of sewerage treatment plant capacity would in principle be taken up in treating the chemicals contained in industrial waste water, assuming that they did not inhibit nitrification. A weaker equivalent would mean that the UK becomes the place where chemicals which have just been banned in Europe would get sold.

#### 4. Other relevant chemicals regulation

4.1 Although the focus of this inquiry is on REACH it does suggest EU Chemicals Regulation more widely. As such it is important that other EU chemical regulatory mechanisms are not forgotten. The Water Framework Directive and Directive on Environmental Quality Standards is hugely important in improving our water quality. Other relevant EU legislation which should be brought into UK legislation include (but not limited to) the Sustainable use of Pesticides Directive and the Biocidal Products Regulation, Industrial Emissions Directive, Bathing Waters Directive, Drinking Water Directive and the Urban Waste Water Treatment Directive.

4.2 The Water Framework Directive, together with the Directive on Environmental Quality Standards, is vital to improving the quality of our water bodies. Within any “Brexit” scenario there needs to be robust legislation monitoring and addressing emerging chemicals of concern. This is currently addressed through control of substances on the priority substances list and a watch list. There are 33 substances on the priority substances list and a few on the watch list. Monitoring requirements are minimal and down to member state discretion. Currently, the minimum does not provide a representative sample across the UK; transitional waters in particular have limited chemical monitoring. Pharmaceuticals are included within the remit of this legislation whereas there is very limited alternative legislation currently. At present there are 275 different pharmaceuticals globally detected in the environment with limited control or monitoring. Three are being monitored under the watch list. There is increasing evidence of the negative impact of certain pharmaceuticals on wildlife. For example, 45% of UK rivers could have ibuprofen levels found to be harmful to fish<sup>2</sup> and the anti-depressant Prozac has been shown to lead to a reduction in starling foraging and breeding behaviour<sup>3</sup>. These tend to alter behaviour rather than cause death, but impact

<sup>2</sup> Exploiting monitoring data in environmental exposure modelling and risk assessment of pharmaceuticals (2014). A Boxhall, V Keller, J Straub, S. Monteiro, R Fussell, R. Williams. Environmental International [Volume 73](#), December 2014, pp 176–185

<sup>3</sup> Behavioural and physiological responses of birds to environmentally relevant concentrations of an antidepressant (2014). T, Bean, A. Boxall, J. Lane, K Herborn, S. Pietravalle and K. Arnold. Philosophical Transactions of the Royal Society B: Biological Sciences. November 2014, Vol 369, issue 1656.



populations through affecting reproductive success and reduced survival. **We recommend that the EAC considers how to best ensure the safe production, use and disposal of pharmaceuticals (both human and veterinary).**

4.3 The UK must ensure adequate monitoring of bioaccumulation and combination effects of chemicals in order to effectively understand the impact of chemicals on the environment. Monitoring of sub-lethal impacts such as those affecting reproduction and reduced fecundity should also be taken into account whereas currently only lethal doses are considered. Chemicals that accumulate in aquatic plants and animals can accumulate up the food chain via predation and ultimately into human food. These exposures can lead to a variety of problems in predatory species, including thinning of eggshells, disruption of parental behavior, reproductive disorders, and cancers, among other effects. Laboratory studies also suggest that the effect of some endocrine disrupting chemicals can be transgenerational affecting subsequent generations.

4.4 However, monitoring is at member state discretion and the Water Framework Directive must be included within the Great Repeal Bill. It is *the* essential framework towards improving water quality (alongside all other water management issues) and has resulted in a shift change in the way we manage our water environment; including significantly improved environmental monitoring, more aligned management and a large number of partnership projects to enhance our environment, to name just a few benefits.

## 5. Implications for the environment

5.1 If the UK had a reduced capacity to regulate and manage chemical production and release, the negative impact on the environment could be huge. Hundreds of chemicals are classified with regard to aquatic toxicity under the EU harmonized classifications - 1,045 chemicals are classified as “very toxic to aquatic life”; 933 are classified as “very toxic to aquatic life with long lasting effects”; 566 as “toxic with long lasting effects”; 406 as “harmful with long lasting effects”; and 252 as “may cause long lasting harmful effects to aquatic life”. It is suggested that at least 27% of total ecosystem losses are due to pollution by chemicals. The cost of inaction on chemicals for biodiversity is high<sup>4</sup>.

5.2 Adverse effects on aquatic animals include cancers, disrupted reproduction, immune dysfunction, damage to cellular structures and DNA, and gross deformities. Examples of adverse effects of water contaminants on aquatic vertebrates include feminisation of fish, amphibians, and reptiles; and developmental delays, acceleration, and malformations in amphibians exposed to agricultural chemicals.

5.3 It should also be noted that management of chemicals in production, consumption and disposal phases may have negative impacts on water resources.

5.4 Any future regime for the management of chemicals would be of most benefit if there are no divergences in policy or practice across the devolved administrations. The negative impacts upon industry described above if the UK were to adopt a different approach to that taken by Europe would equally apply across the UK if different approaches were

<sup>4</sup>[http://www.unep.org/hazardoussubstances/Portals/9/Mainstreaming/GCO/The%20Global%20Chemical%20Outlook\\_Full%20report\\_15Feb2013.pdf](http://www.unep.org/hazardoussubstances/Portals/9/Mainstreaming/GCO/The%20Global%20Chemical%20Outlook_Full%20report_15Feb2013.pdf)



taken by the devolved administrations. In addition, enforcement would become complicated where the chemicals released from one country's industries impact species or ecosystems which by their nature do not respect administrative boundaries. Key examples include the cross-border river systems contained within the Severn, Dee and Solway Tweed River Basin Districts.

5.5 The UK has signed up to a number of sustainable development goals for 2020 and 2030, including by 2020 to use and produce chemicals in ways that do not lead to significant adverse effects on human health and the environment; by 2030 to substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water, and soil pollution and contamination; by 2030, to improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater, and increasing recycling and safe reuse. The UK approach to chemicals regulation needs to be robust and well supported to ensure these goals are met and arguably, this is not best done alone. The costs of not taking action towards the sound management of chemicals are often higher than the costs of implementing measures to manage chemicals in ways that minimize adverse effects to human health and the environment.

**5.6 We recommend that the UK signs up to REACH within any future agreement with the EU. To ensure effective control of chemicals other EU legislation also needs to be retained including the Water Framework Directive. However, monitoring of chemicals additional to the minimum required by REACH is essential to putting the UK on the forward foot and ensuring the health of our environment and ourselves.**

This response is supported by the following ten organisations:

- Amphibian and Reptile Conservation
- Angling Trust
- Buglife
- Butterfly Conservation
- Friends of the Earth England
- Greenpeace
- The Rivers Trust
- Salmon and Trout Conservation
- Wildfowl & Wetlands Trust
- WWF-UK



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