

WRc identifies future risks to water quality from pesticides

The Need

To achieve compliance with the drinking water standard, water companies need to understand future trends in pesticide use so that they can take proactive steps to reduce water pollution in their source catchments. Companies use a variety of models to assess the risk of pesticide contamination, but these tools rely upon historical land use and usage data and so are unable to predict how changes in farming may give rise to new issues in the future.

Pesticides pose the biggest single threat to raw water quality in the UK.

The Solution

Working collaboratively with seven water companies, WRc's Catchment Management team looked at 15 possible future scenarios, including bans on selected pesticide products, climate change, shifts in cropping patterns, and changes in agricultural policy following Brexit. This analysis revealed how the type, amount and timing of pesticide use on a variety of crops might change over the next 10 years. The findings were used to develop a spreadsheet tool that allows companies to predict how the level of risk will change in each of their source catchments.

The Outcome

Companies can now stress-test the adequacy of their existing control measures for meeting future challenges and know what potential issues they need to be discussing with farmers. The early detection of emerging risks allows companies to pre-empt problems before a costly treatment solution is required, which is a lower cost and more sustainable way of managing pesticide pollution.

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The WRc technical staff working on the project were very knowledgeable and thorough.

Portsmouth Water

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