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Developing a Framework of Innovative Trials to Support Water Companies Strategic Response to WFD

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Slug control in high risk fields and catchments can have serious implications for water companies, threatening compliance with drinking water standards and challenging the Water Framework Directive's requirement that additional water treatment is avoided. Severn Trent Water has established a framework of innovative trails at a range of scales and locations to help shape the company's strategic, sustainable response to elevated metaldehyde concentrations at drinking water abstractions. Currently four contrasting trials are underway, two at the catchment scale, one at the field scale and one at the 'operational site' scale at locations across the English Midlands. This presentation provides an overview of the different approaches, their effectiveness to date and lessons learnt to aid strategy development.

The first trial entitled Farmer's as Producers of Clean Water adopts a 'results orientated' approach, rewarding farmers for improvements in water quality at the catchment scale and allowing farmers to decide how best to manage the issue on their land with no prescribed measures. It acknowledges that co-ordinated action is needed across the catchment to see improvements in water quality, and that by incentivising outcomes rather than actions, land owners and farmers may take greater ownership of water quality issues. The second project explores the potential for a 'zero metaldehyde' catchment with all farmers throughout the catchment being financial supported to use a water friendly alternative to metaldehyde. This project is being compared to more voluntary approaches adopted elsewhere. The third project is a field scale trial to test the efficacy of alternative products to metaldehyde and different pellet formulations. Field drains are being sampled following heavy rain and crop damaged assessed to review the benefits to water quality and crops. The final project considers what Severn Trent Water can do from an operational perspective, investigating the size and shape of metaldehyde peaks in relation to 'real time' pesticide usage data to assess the potential to switch abstractions off during high risk periods.

To date results have been encouraging with water quality benefits observed in all three catchment/ field scale trials. Although still ongoing, the projects have highlighted the importance of strong farmer engagement and the need to get agronomist involved at an early stage. Farmers need reassurance of the efficacy of alternatives, support which is straightforward to understand and access, and localised evidence of the issues and subsequent improvements. Adopting a framework of projects is providing Severn Trent Water with tangible, results based results which can be used to develop practical, sustainable solutions that fit with both the agricultural and water industries alike.