

Additional written evidence from Peter Lloyd

I have made two previous submissions to the Committee, in February and June, regarding the ineffective system of chemical water quality monitoring that is carried out by the Environment Agency. I am concerned that the new system, recently introduced by the Agency, will produce misleading data and will be a continual drain on resources. This new scheme is referred to as the River Surveillance Network, and is based on a system known as GRTS (Generalised Random Tessellation Stratified).

I sent a request for information to the Agency in July, and have now received a response from the Agency which confirms that:

- No options for surveillance monitoring were considered other than a GRTS based system.
- No cost benefit was carried out for the River Surveillance Network.
- No documentation is available that provides information on any technical evaluation as to whether the data outputs from the scheme would be compatible with existing scientific knowledge of the factors that affect water quality.
- No consultation took place with stakeholders and interested parties regarding the fact that random sampling locations were to be used, despite this being a decision that would have very significant implications on the value of data generated by the scheme.
- The Scientific Advisors Group, which was set up by the Agency to advise on monitoring strategy, expressed considerable doubts regarding the effectiveness of the GRTS scheme.

It is also relevant to note that the co-author of a report, which was produced for the Agency by Glasgow University, has stated that the proposed River Surveillance Network will not meet the monitoring objectives that have been set by the Agency.

Taking account of the above, there must be serious doubts regarding the conclusions and recommendations of the Agency strategic monitoring review, which was carried out over a 5-year period at a cost of well over £1M. Other schemes that weren't even considered by the Agency review would be far more cost-effective, would allow the use of risk-based priorities and could be integrated with the concept of Citizen Science.

This unsatisfactory situation has arisen because the statisticians who designed the scheme were unaware of the complexity of water quality variability, and the Agency management did not fully understand the assumptions that were being made by the statisticians.

This issue of the ineffective and costly Agency new monitoring system is a serious threat to the protection and improvement of the water environment. In this respect, it could be argued that, had the Agency been using a proper monitoring strategy for the past 25 years, then many of the existing problems with sewage overflows would have been identified and tackled sooner.

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