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Dear Sir or Madam,

## EUROPEAN COMMISSION DG ENVIRONMENT

### Public Consultation on the revision of the Annexes of the Groundwater Directive

#### Response from the Government Chemist

As Government Chemist, I am responsible under certain UK Acts of Parliament<sup>1</sup> for providing independent analytical measurement and expert opinion to help avoid or resolve the disputes over scientific data which arise from time to time between local authorities and the businesses that they regulate. My public remit also covers wider advice to UK government and other affected parties on the role of analytical measurement in effective policy, standards and regulations. My staff liaise with regulatory services involved in sampling, analysis and product testing linked to the investigation of alleged non-compliances. I therefore take a significant interest in quantitative limits or values which are given in guidelines, regulations or legislation.

Consequently, I note the variability of Threshold Values (TVs) across EU Member States. I would support the establishment of common TVs across the EU, taking into account the variable background levels (NBLs) of naturally occurring substances, and aligning these, where possible with the levels in the Environmental Quality Standard (EQS). Of greater concern is the fact that TVs in some Member States are significantly lower than the EQS values, or even the Drinking Water (DW) values. A good example of this is trichloroethylene where the lowest TV is 0.2 µg/L compared with an EQS value of 11 µg/L and a combined trichloroethylene/tetrachloroethylene DW value of 10 µg/L. The ability to accurately determine this substance at such a low level must be called into question as the generally-accepted limit of detection for trichloroethylene in groundwater is approximately 1 µg/L.

Section 2.2.2 draws attention to emerging contaminants and pollutants in waters, citing human and veterinary pharmaceuticals as one area of concern. The recent decision to place the pharmaceuticals diclofenac, E2 and EE2 on the Water Framework Directive (WFD) watch list indicates that there is some concern about these substances in particular and pharmaceuticals in general. I believe that the establishment of TVs for these in groundwater should be considered, in line with the suggested EQS values. The development of analytical methods which are effective at these low levels would also be needed. I believe that there will be a need to monitor groundwater for pharmaceuticals in order to build up information about their distribution in European water bodies, which will be of benefit to organizations operating water treatment plants that will need to invest in

<sup>1</sup> Boley, N. Government Chemist Legislation, Annual Statement of Statutory Scope, January 2013, available at <http://www.governmentchemist.org.uk/Generic.aspx?m=77&amid=1623>



appropriate facilities for the removal of pharmaceuticals, which is not routine in many plants.

I would therefore support Options A2 and A3, Options B2 and B4, and options C2 and D4.

Thank you for this opportunity to comment.

Yours sincerely



**Derek Craston**  
**The Government Chemist**