

This new manuscript is a strong and valuable contribution to water quality monitoring research. It combines technical innovation with practical field validation and addresses an important challenge in hydrology by obtaining reliable, high-frequency and multi-source water quality data. The article is well-structured but the choice of the colours and symbols in the graph could be improved for the reader's understanding. Despite some minor limitations, the study demonstrates real potential for advancing catchment science and management of water quality in mixed structured landscapes.

To address the data presentation issue, Fig. 4 and Fig. 5 will be reformatted into matrices of subplots. Water sources and water quality parameters will be organised by rows and columns, respectively. Consequently, only one data series will be plotted per subplot, improving clarity. In addition, colours used for each water quality parameter will match the colour used for the appropriate measurement device in Fig. 1a.

The manuscript focuses primarily on technical implementation rather than on the scientific interpretation of the collected data. Although this is acceptable for a technical note, additional examples of hydrological insights derived from the measurements would have given some added value to the manuscript. Strongest interpretations on the relationship between hydro-climatological records and water isotopic or nitrate composition could have been done.

Thank you for this suggestion. Being mindful of the length of the manuscript and in response to earlier suggestions by the editor, we would prefer to stay with showing one or two exemplar results from the WATER to highlight how the collected data has the potential to advance process understanding. However, formal process-based analysis will certainly be the focus of later manuscripts.

I think that the economic dimension would require more details that could be valuable for research institutions or public authorities interested in this recent way of monitoring water quality. Additional explanations and estimations about installation costs, operational expenses and long-term maintenance would have been welcome.

We understand the reviewer's perspective here; however, since the WATER was developed over several years and prices for equipment etc. are continually changing, it would be difficult to provide an accurate cost estimation that would be useful to others looking to develop a similar system in the future. Instead, we can provide a table of the hardware components and consumables (in response to RC3) needed for the WATER in a Supplement so that all the information needed to acquire up-to-date cost estimates is accessible in one place. We will also expand Section 3.3 slightly to include likely longer-term maintenance considerations.

Despite the nice presentation of the considerations when operating the WATER system, showing flood event cases for which the results were not as promising would have given more realistic indication of WATER operational limitations. This is of importance because such monitoring tool may not always be as straight forward in its use and in the results it may provide.

The reviewer is correct that in our proof-of-concept, we have not explicitly demonstrated the capability of the WATER to sample in extreme events such as floods. To address this, we will de-emphasise this use case of the WATER in the Introduction and instead briefly discuss it as a possible further application subject to potential constraints (e.g., safe site access) in the Concluding Remarks.

Finally, I wonder about the 5 μm threshold of the filter selected in this analytical chain. I do not really see its relevance according to the standard filtration scheme that are generally used by environmental agencies and research institutions: 1 μm to separate suspended particles from colloids and real dissolved fractions; 0.45 μm for water quality assessment. How the data collected with WATER could be used as a comparison in places where historical data already exist if the filtration is so different? More detailed information for the selection of the filter system could be done as well.

In this iteration of the WATER, the 5 μm threshold of the filter upstream of the sampling reservoir reflects the need to remove particulates from water sampled by the Continuous Water Sampler (CWS) during stable water isotope analysis. This is to preserve the lifespan of the membrane cassette used by the CWS and does not affect the resulting data. Water sampled by the YSI 600R and ProPS for water quality is unfiltered. We will present this reasoning in the revised manuscript and make clear that, depending on which measurement devices are to draw water from the sampling reservoir, other filter thresholds could also be used.