Interactive comment on "High resolution monitoring of nutrients in groundwater and surface waters: process understanding, quantification of loads and concentrations and management applications" *by* F. C. van Geer et al.

Anonymous Referee #1

The paper is an introduction to a special issue. As such it needs to introduce the subject of the special issue, state its relevance, and indicate how the special issue came to be. These aspects are all covered in the paper.

That being said, it takes some effort for the uninitiated to grasp some elements of the paper. Jargon from applied water quality research is used freely. While the terminology within that context is quite clear, the various buzzwords have very different meaning in other contexts, and I would like to see this source of ambiguity removed by making the phrasing more precise and specific.

I think the paper can be shortened quite a bit. There is some repetition in there, and the information density is low in some sections, with filler words used to start sentences, and text devoted to state the obvious. Particularly the Aristotelian categorizing in section 2 was tedious to read. This is not to say the list should go entirely, but probably it can be presented more concisely.

I like the very explicit connection to the applications of the science, and would even advocate for strengthening that by more clearly identifying the stakeholders and the main actors in the areas of land and water management and legislation that are going to be the main users of this research.

All in all, substantial rewriting is needed in my opinion, but nothing that cannot be managed with some effort. I am attaching a file with some detailed comments that hopefully offer some useful suggestions.

Please also note the supplement to this comment:
http://www.hydrol-earth-syst-sci-discuss.net/hess-2016-169/hess-2016-169-RC1-supplement.pdf