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Hydrology and Earth System Sciences
Discussions

Interactive comment on "A meta-analysis of groundwater contamination by nitrates at the African scale" *by* Issoufou Ouedraogo and Marnik Vanclooster

Anonymous Referee #2

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Overall, this is a thorough and well-thought-through evaluation of nitrate contamination of groundwater using a comprehensive modeling and literature review approach. I support its publication with minor revisions, largely focused on minor issues and lack of consistency in grammar use. I think of one of the key strengths of this manuscript is the solid and relatively rare linkage between the developed model and field-based (i.e., easily attainable in the field) data characterising NO3 pollution.

Itemised points:

-there are minor grammatical errors throughout; the manuscript is easily readable but not fully correct. Please have a native English speaker proof-read prior to final submission. - define all acronyms and use consistently. -The literature review is admirably

thorough, supporting the case. - The authors use fair and logical limitations on the data selected/used. - What does 'risk' describe in Fig. 3? How is 'risk' defined, per reader (and reviewer) understanding? - The authors have done an intensive analysis of the data provided via available literature. - Are nitrates naturally more abundant in specific geologic formations? If so, please include detail. - p. 14; the range of NO3 goes from 0 to 4625 mg/L for min and max.; this is a large range (as an aside, per the supporting text, max and min definitions need to be reversed). 1) std. dev. values should be included. 2) with this range of max and min, why is the avg. so low (27 mg/L)? The std. dev. for these data are needed to support. - There is a general lack of consistency in hyphen use throughout (e.g., Pan-African vs Pan African vs African). Please be consistent. - The importance of nitrate pollution is solidly presented. Can a brief discussion be included in the conclusion on how this issue can be addressed and /or alleviated?

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