

Interactive comment on “Confronting vicinity of the surface water and sea shore in a shallow glaciogenic aquifer in southern Finland” by S. Luoma et al.

Anonymous Referee #2

Received and published: 28 October 2014

The given manuscript deals with a mainly practically important problem, with the understanding of the behaviour of a shallow coastal aquifer to be able to maintain its good quality for future drinking water supply. The research was based on geochemical approach applying different statistical methods. The scientific novelty of the study is not really highlighted in the manuscript and in my opinion, it has more practical relevance, than scientific. The paper would be improved by highlighting the general scientific significance of the study or with intending to extend the final results for larger areas, or for similar areas in the surroundings, or in similar geological situations. The research is well planned and executed. The objectives are clear. The strength of the work is the

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wide range of methods being applied for the understanding of the connection between groundwater-surface water-sea water. These methods are appropriate for answering the main questions. However, simple hydraulic methods, e.g. potential maps could be very well basis for the chemical approach. The hydraulic connection among the wells, the lake and sea can be very well characterized simply with hydraulic data. I propose to do a bit more interpretation based on the water level data. The manuscript is well organized, well written and easy to follow. The figures are good illustrations of the text in general, their quality is good. Fig 1 could be improved, because it is too small to easily find all the observation points on the map. Based on the previous remarks, I suggest the publication of the paper with minor revision.

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., 11, 8651, 2014.

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