

Interactive comment on “GIS analysis of effects of future Baltic Sea level rise on the island of Gotland, Sweden” by Karin Ebert et al.

Anonymous Referee #2

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Continuation of RC2, specific comments:

The authors should also refer to the original presentation of the RV method in GIS, which is in Lindberg, Olofsson and Gumbrich (1996) [Lindberg, J., Olofsson, B., Gumbricht, T., (1996): Risk mapping of groundwater salinization using Geographical Information Systems. 14th Salt Water Intrusion Meeting (SWIM), 16-21 June 1996, Malmö, Sweden. SGU Rapport och Meddelanden no 87, pp 188-197.].

283- There are no statistical data presented that there is a transition zone that extends inland between saltwater and freshwater. Probably such zone (if exist at all) is probably only related to the coastal fringe, 0-300 m. Former investigations point out that the level of the salt groundwater is between -0 and -30 m in large areas of southern Gotland (Tullström 1954) [Tullström, H. 1954: Preliminary results from hydrogeological

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investigations on Gotland. Grundförbättring no 7.(In Swedish]

329- You can't use the weighting values as proof for the risk for abrupt changes since you don't present any data that supports the statement.

Technical comments:

The figures are generally good and informative. However, there is no information given which interpolation method is used for the spatial analyses, e.g. figures 3B, 4, 5 and 6. There is a significant difference for different interpolation methods (e.g. kriging, IDW, linear interpolation. ...).

Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., doi:10.5194/nhess-2016-55, 2016.