

Review of: "Saltwater Intrusion in Coastal Aquifers: A Comprehensive Review and Case Studies from Egypt"

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Potential competing interests: No potential competing interests to declare.

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Abstract :

There is no doubt that groundwater (fresh water) plays an essential role in people's lives, especially in coastal areas

Saltwater intrusion (SWI) is one of the most common problems that Threaten the groundwater quality ~~must be put into consideration, and it is considered a major risk to groundwater quantity and quality.~~

It occurs when saline water is allowed to enter coastal aquifers..... It occurs when the saltwater wedge exceeds a certain threshold of penetration into the coastal zone

Introduction

The authors should limit themselves to coastal groundwater and not to a general introduction on the vitality of water resources which is evident.

Figure 1 can be removed and reference can be made to Figure 2, which is more appropriate to the subject being discussed.

Figure 3. Sharp and Diffusive interface assumptions for modeling of saltwater intrusion. **Ref biblio should be cited (if it is the case).**

3.1 :

h_f : Thickness of freshwater zone above sea level

h_s : Thickness of freshwater zone above sea level $h_s = h_f$??? (same definitions)

Fig.4 In addition to the proposed diagram, it is useful to distinguish the preponderance of hydrodynamic causes from those linked to anthropogenic activities.6 -: Current monitoring method: continuous recording of multiparametric measurements (wireless data transmission)

7.4 – another interesting code : Freewat :.....(including subroutines of Modflow - Rossetto, R., De Filippis, G., Borsi, I., Foglia, L., Cannata, M., Criollo, R., Vázquez-Suñé, E., 2018) - Case study : Initial assessment of the groundwater flow and budget using Geographic Information System, MODFLOW-2005 and the FREEWAT modeling tool in Bouteldja coastal aquifer (Northern East of Algeria). <https://doi.org/10.7343/as-2021-511>

8.1.1 to 8.7 : examples of real cases to cite, and give as briefly as possible the benefits and disadvantages of these means of recharge and what about your study cases ?

Fig. 7 – bibliographic references to cite if it is the case

9 – The studied cases in Egypt are all bibliographic, without a particular personal approach or critique. This paragraph, which is the core of your work, needs to be improved by including your personal view concerning the reached results and critics.