

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.

The manuscript can be accepted for the following reasons:

The article addresses a crucial issue, highlighting the importance of groundwater management, particularly in coastal areas where it plays a vital role in people's lives. The focus on salination of groundwater, saltwater intrusion, and its impacts on groundwater quantity and quality demonstrates the relevance and significance of the research topic. The article aims to provide a detailed examination of saltwater intrusion, including its definition, causes, factors influencing it, monitoring techniques, modeling methods, and management tools. This comprehensive coverage indicates a thorough exploration of the subject matter. By discussing various monitoring techniques, modeling methods, and management tools such as remote sensing, field surveys, and optimization techniques, the article shows a multidisciplinary approach to addressing the issue of saltwater intrusion. This inclusion of diverse methodologies enhances the robustness of the research. The article not only identifies the problem of saltwater intrusion but also suggests countermeasures to control it, along with discussing their advantages and disadvantages. Providing practical solutions and recommendations demonstrates a proactive approach to addressing the issue. By incorporating case studies from different regions, such as the Nile Delta, Sinai Peninsula, and the North-West coast in Egypt, the article offers a global perspective on saltwater intrusion. This broadens the scope of the research and allows for insights that can be applied in various geographical contexts. The article concludes by discussing suggestions, adaptation strategies, and mitigation measures based on previous research studies. This forward-looking approach not only contributes to the existing body of knowledge but also provides a foundation for future studies and practical implementations.

Overall, the article is well-structured, addresses a significant environmental issue, offers comprehensive insights, and provides practical recommendations and future research directions, making it a valuable contribution to the scientific community.