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| Name          | A Case Study of Coastal Aquifers near Richibucto, New Brunswick: saline groundwater occurrence and potential impacts of climate change of seawater intrusion (NB 2012)  |
| Description   | A case study was conducted between 2010 and 2012 to investigate saline groundwater occurrence and the potential impacts of future climate change and sea-level rise on seawater intrusion into sandstone aquifers near the Town of Richibucto in eastern New Brunswick. The focus of the study was on water supplies obtained from municipal production wells. A three-dimensional numerical model of density-dependent groundwater flow coupled with solute transport was developed for the Richibucto region and this was then used to investigate the effect of future climate change and sea level on the distribution of groundwater salinity within the sandstone aquifers. The results from the numerical modelling investigation indicated that climate change (i.e., changes in groundwater recharge), sea level rise, and increased pumping were all significant to some extent in the context of lateral seawater intrusion in shallow to intermediate depth aquifers similar to those of the Richibucto region. However, sea-level rise had the least significant effect of the three factors considered. |
| Type          | - DATA: In situ Observations  |
| Sector        | - Infrastructure  |
| Focus Area    | - Climate Impacts on Water Resources  |
| Region        |   |
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