Future Coasts Aotearoa

Quarterly Update. April 2023.

Welcome to our first quarterly update

The Future Coasts Aotearoa research team wants to ensure the programme's stakeholders are up to date with the project's progress and achievements. With that in mind, we've initiated a quarterly summary of research output and news stories to stimulate discussion and interest in our work.

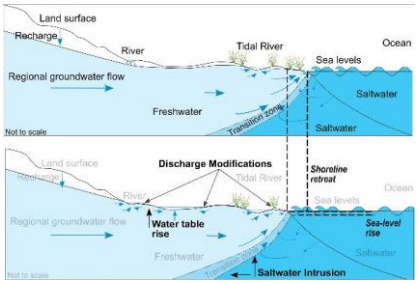
This is our first update and it features published work by researchers involved in the ground water modelling component of the Future Coasts programme. We look forward to receiving your feedback and sharing more updates in the future.

Programme leader
Christo Rautenbach

Researchers Catherine Lovelock and Glenn Guntenspergen shared their international experience on climate change and sea-level rise at a seminar hosted by NIWA.

[Climate change experts tour NZ's coastal wetlands]

A group of international scientists are visiting some of New Zealand's most significant coastal wetlands as part of a five-year research project to help the country adapt and prepare for sea-level rise.



[Groundwater Rise and Associated Flooding in Coastal Settlements]

This article reviews processes of the coastal groundwater zone and simulation tools used to evaluate possible impacts of sea-level rise. The benefits and limitations of the two main methods to assess coastal groundwater rise and contribution to flooding are discussed using studies and investigations up to 2021.

- Source: Earth's Future

https://doi.org/10.1029/2021EF002580

Coastal realignment another coastal challenge

While the concept of managed coastal retreat is now familiar to many, the future for rural coastal lowlands has received less attention. The challenges are being addressed positively in some areas, including by, or in partnership with, iwi/hapü, but there is a national lack of leadership in integrated management across the changing land–sea interface, land ownership remains problematic, and funding requirements remain unresolved.

- Source: Policy Quarterly

Saltwater intrusion from an estuarine river: A field investigation

Estuarine rivers provide critical pathways for seawater to travel upstream of the coast and salinize adjacent aquifers. However, this salinization mechanism (forthwith termed riparian saltwater intrusion) has received relatively little attention compared to saltwater intrusion (SI) at the coast.

- Source: Journal of Hydrology

https://doi.org/10.1016/j.jhydrol.2022.128955
