

Climate Change and Global Warming

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KEYNOTE FORUM | DAY 1

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Vulnerable: The quantum of local government infrastructure exposed to sea level rise

Local government New Zealand (LGNZ) released a report on 31 January 2019 measuring the replacement value of local government-owned infrastructure exposed to sea level rise. The report details the type, quantity and replacement value of assets at intervals of MHW+0.5, 1, 1.5 and 3.0 meters using LiDAR and DEM analysis. Data is drawn from a survey of 62 of New Zealand's coastal councils, with a 97 percent response rate. This is the first time that a coordinated national analysis - exclusive to local government-owned infrastructure exposed to the effects of sea level rise - has been performed. LGNZ's study finds that the greatest amount of vulnerability is in three glasses of water infrastructure (storm, sanitary and drinking) followed by roading and buildings/facilities. In

total, more than \$14 billion of local government-owned assets are exposed at a 3.0 meter increment of sea level rise. LGNZ will use the empirical evidence gathered to create greater clarity about the quantity, cost and location of local government infrastructure to premise discussions with central government, businesses and private property owners about how to address impending impacts. Additionally, LGNZ intends to assist councils to fill identified knowledge gaps and set in place a process and procedure for future analysis to deliver greater precision in long-term adaptive asset and investment planning. Importantly, LGNZ's report outlines a number of recommendations for stakeholders to better align with each other to ensure long-term resilience of essential infrastructure. At its core, this analysis is about turning a challenge into an opportunity.

Biography

Thomas Simonson moved to from the US to New Zealand in August 2014 to join LGNZ as a Principal Advisor. He has been a portfolio manager and advocate in the areas



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of climate change, housing, roading and transport and local government funding. He also has considerable experience in working in the private sector with more than a decade of experience in land planning and development and five years as a consultant to the US federal government in land and environmental planning. Tom has Masters degrees from California Polytechnic State University – San Luis Obispo in City and Regional Planning and the London School of Economics in International Housing.

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