

5 Enabling Climate Action - Tuesday 3 November

5.1 Incorporating climate change into infrastructure planning

James Hughes¹

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Climate change is the biggest environmental challenge of our time. It is becoming increasingly important for public and private sector organisations to clearly understand and manage climate-related risks, and to have a plan to contribute to a 1.5°C future.

With the passing of the Zero Carbon Act, the associated reporting powers, and an increased focus on disclosure frameworks such as the TCFD, organisations which address climate change early will no doubt have a smoother transition, than those that delay action.

For Councils and asset owners, this means having clear frameworks to identify and prioritise risks across their activity areas, as well as having data, processes and policy to drive a reduction in emissions.

The Office of the Auditor General have signalled that they will be taking an increased focus on climate change and resilience within infrastructure strategies. This is a welcome change and will need to be supported by useful guidance and support for Councils, related to good practice.

This presentation will explore both climate risk and adaptation, as well as mitigation, in the context of key council activity areas (3-waters, roading, waste). The authors suggest a range of best-practice approaches to identifying and assessing climate risk, as well as to reducing emissions across capital and operational infrastructure activities. This draws on their recent involvement with a range of climate change risk assessments for Councils and utilities, as well as NZ's National Climate Change Risk Assessment.

James has a 20-year career in the infrastructure and environmental sectors, including work within infrastructure planning, natural hazards, climate change adaptation and mitigation. He leads T+Ts climate and resilience practice and has been involved in a range of important projects over recent years. These include the recent National Climate Risk Assessment, the Deep South Challenge, and MfE's Climate Adaptation Technical Working Group.

5.2 Decade of Doing

Kate Meyer¹

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2020 marks the beginning of the “decade of doing”. We need rapid and transformational change that halves greenhouse gas emissions by 2030. COVID has demonstrated how rapidly we can change when we understand the urgency of the problem. It has also given us some insight as to the magnitude of change that is needed; the emissions reductions achieved during lockdown is what we need to achieve every year through to 2030. Even if we are successful in rapid decarbonization, the climate will continue to change over the coming decades. Asset managers need to plan to concurrently pivot business models to suit a low carbon future, whilst increasing climate resilience for existing assets. These challenging times also present exciting opportunities for new ways of operation. New Zealand is well positioned to lead this change with our successful management of the COVID crisis and our already low-carbon grid.

Dr Kate Meyer will talk about some of the challenges, and share success stories where New Zealand businesses are taking innovative approaches in their transition towards an ecological future.

6 Requirements, business rules and funding – Tuesday 3 November

6.1: Lessons learnt driving change in FNDC's capital investment programme through risk-based prioritisation

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How do your elected members and community know that their rates investment is being made at the right time, in the right place, for the right cost?

In preparing for the Long-Term Plan 2021-2031 Far North District Council have undertaken a change management process to link community wellbeing outcomes, core values, levels of service and strategic objectives through the business case framework to enable prioritisation of their future capital works programme. The aim being to deliver a transparent process to ensure the community's scarce funding can deliver well-prioritised, affordable, achievable community outcomes over realistic planning horizons. The project was split into two complimentary workstreams:

1. Improvement – A review of levels of service, measures and decision-making criteria to identify gaps and recommend a prioritisation method that recognises strategy, risk, cost/affordability and organisational ability to delivery
2. Implementation – Defining and prioritising capital works projects, using the new business case criteria, to balance council's capability to delivery and tolerance for risk.

This paper will benefit public infrastructure owners through sharing the FNDC's approach, the lessons learnt during the project as they seek to develop a robust, well-evidenced investment programme that enables informed risk-based decisions, including the trade-offs between 'above' and 'below the line' investment.



Deborah brings strategic, management, operational, technical and customer experience gained over 25 years working in New Zealand, Australia, Pacific Islands and the UK. Former roles working in local government, CCOs, privatised utilities and consultancy provide Deborah with a unique insight into the political, community and technical challenges faced when delivering asset management solutions.

6.2 Asset Valuations – The often underestimated fundamental

Brian Sharman¹

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Infrastructure asset valuations are now commonly regarded as a necessary evil, which has become more of a tick box exercise to be overseen by a representative from the financial department rather than being regarded as core to good asset management, the results of which impact on all facets of the organisation.

To complete the valuation of an infrastructure related asset or network of assets, especially if the network is predominantly buried underground like a water, wastewater, stormwater or electricity supply network, there are a number of fundamental inputs which have a profound impact on the

accuracy of the final valuation:

- A comprehensive up-to-date asset register, incorporating asset location, size, depth, material, age and condition across all relevant asset groups.
- An up-to-date listing of unit rates which represent the cost of creating the assets in the local area, including an understanding of the relevant on-costs (design, consenting, procurement and project management).

However too often, even today, we are presented with incomplete and inaccurate asset registers and projects which have been delivered using Lump Sums and procurement and project management processes which make breaking the costs down into useable unit rates impossible.

This paper will discuss the issues which this inaccurate and incomplete input data can cause on the final valuation and the repercussions this can have on the wider organisational issues of:

- Annual depreciation costs
- Funding for asset renewals
- Cost estimates of new projects
- Insurance costs and having appropriate insurance cover
- Long term capital funding and borrowing capability

***Brian** has over 40 years' experience in the infrastructure and asset management industries in the UK and NZ and is now a Director of IAM Consulting Ltd. based in Auckland, having been a Technical Director, Strategic Asset Management with Aecom NZ for nine years, and has worked for consultants, local government and privatised Water Companies, as well as Council Controlled Organisations, Unitary Councils and corporates. Brian is a long-term supporter of IPWEA, has presented at many conferences and was a co-author of the 2015 version of the IIMM.*