

David Greig

New Zealand Transport Agency

Presentation

Infrastructure Management for New Zealand Coastal Highways: Coastal Assessment Environment Risk Framework and example of assessment tool

Biography

David has a background in environmental science with over 30 years' experience in the resource management field, and is currently employed as a Principal Environmental Specialist with the NZ Transport Agency.

David works in the Highway and Network Operations National Office Environment and Urban Design Team, providing advice to the Transport Agency on managing effects on natural systems to ensure projects can meet statutory needs and also good practice. Working with a range of engineering teams, statutory planners and stakeholders, David is able to influence the Transport Agency towards meeting its environmental and statutory responsibilities, something he finds rewarding.

Abstract

The NZ Transport Agency (Agency) maintains and operates large sections of state highway, with many assets close to or within the coastal environment. Activities and infrastructure located in the coastal environment are controlled by the New Zealand Resource Management Act 1991, and guidance for authorizations is provided through a national policy framework set out in the New Zealand Coastal Policy Statement 2010¹. Guidance focuses on safeguarding the integrity, form, functionality and resilience of the coastal environment (including activities and infrastructure), and ensuring that coastal hazard risks are identified and take into account climate change.

As a national organization the Agency must give effect to the National Infrastructure Plan (July 2011)² developed by central Government which has a resilience goal that national infrastructure networks are able to deal with significant disruption. In response to central government's expectation on resilience the Agency's Statement of Intent 2015-2019 (Objective 7)³ seeks greater resilience of the state highway network through careful planning, investment and management. Through a National Resilience Programme Business Case (Resilience PBC) approach the Agency is increasing its capacity to recover from planned and unexpected events, and returning to providing the required level of service for its customers.

¹ NZ Coastal Policy Statement <http://doc.org.nz/publications/conservation/marine-and-coastal/new-zealand-coastal-policy-statement/new-zealand-coastal-policy-statement-2010/>

² National Infrastructure Plan (July 2011): <http://www.infrastructure.govt.nz/plan>

³ NZ Transport Agency Statement of intent 2015-2019: <https://www.nzta.govt.nz/resources/nz-transport-agency-statement-of-intent-soi-201519/>

Translating the expectations for effective coastal asset management into practical planning and delivery tools for state highway infrastructure, the Agency has prepared a 'Coastal Effects Assessment Guideline'. The Guide is designed to assist users better understand coastal influences on infrastructure, and the effects of infrastructure on the environment, over an assets design life. An adaptive response can then be planned and implemented more strategically to enhance resilience of the infrastructure and minimize effects of, and on the environment. This paper will discuss drivers for developing this guide, the content of the guideline and reflections on implementation to date, particularly for statutory planning purposes.