WAKA KOTAHI RESEARCH SUMMARY NOVEMBER 2020

Variability in environmental regulatory requirements for roading construction

Waka Kotahi NZ Transport Agency commissions capital works projects in every region. In recent years its staff and project partners noticed that treatment and management of Resource Management Act (RMA) environmental aspects varies both within regions and across New Zealand. Between 2018 and 2020, researchers conducted a review to better understand this variability, which may help streamline future consenting processes for applicants, regulators, partners and stakeholders.

HOW WAS THE REVIEW DONE?

An initial assessment of two case-study projects identified four key environmental risk areas:

- ecology
- erosion and sediment control
- stormwater management
- noise and vibration.

Researchers used these to analyse the variability of RMA conditions and environmental management requirements across eight capital works road transport projects.

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These case studies were a mix of small- and large-scale projects in a variety of regions and environments. For each, researchers reviewed the RMA approval process, and consent and designation conditions for each of the key environmental risks. They also analysed whether variability could be attributed to factors such as:

- size of the project
- RMA approval process
- local government district and region
- sensitivity or types of receiving environment
- urban/rural/natural-state project environment.

The researchers then developed an environmental risk matrix to measure the effectiveness of the management controls of the four environmental risks.

RESULTS: THE KEY INFLUENCES ON ENVIRONMENTAL VALUES AND DEGREE OF VARIABILITY

- Ecology was the most complex aspect reviewed. Avoiding or minimising impacts on sensitive ecological values is best done at the route selection (business case) phase. Then a standard process is usually applied of understanding the baseline (monitoring) and developing strategies to mitigate environmental impacts if they can't be avoided.
- The approach to erosion and sediment control was the most consistent across the case studies.
- The approach to managing stormwater quality and quantity varied significantly across the case studies.
- The approach to managing noise and vibration also varied. Management controls depended on the size of the project and the proximity to urban areas or other receptors.

URBAN–RURAL VARIABILITY

The location of the projects impacted on the conditions for some of the environmental aspects reviewed, generally in response to the degree of risk. For erosion and sediment control and stormwater effects, the scale of the project had more of an influence on the conditions applied than whether the project was in an urban or rural environment. Noise and vibration aspects were more significant in urban areas, leading to more stringent conditions and management requirements.

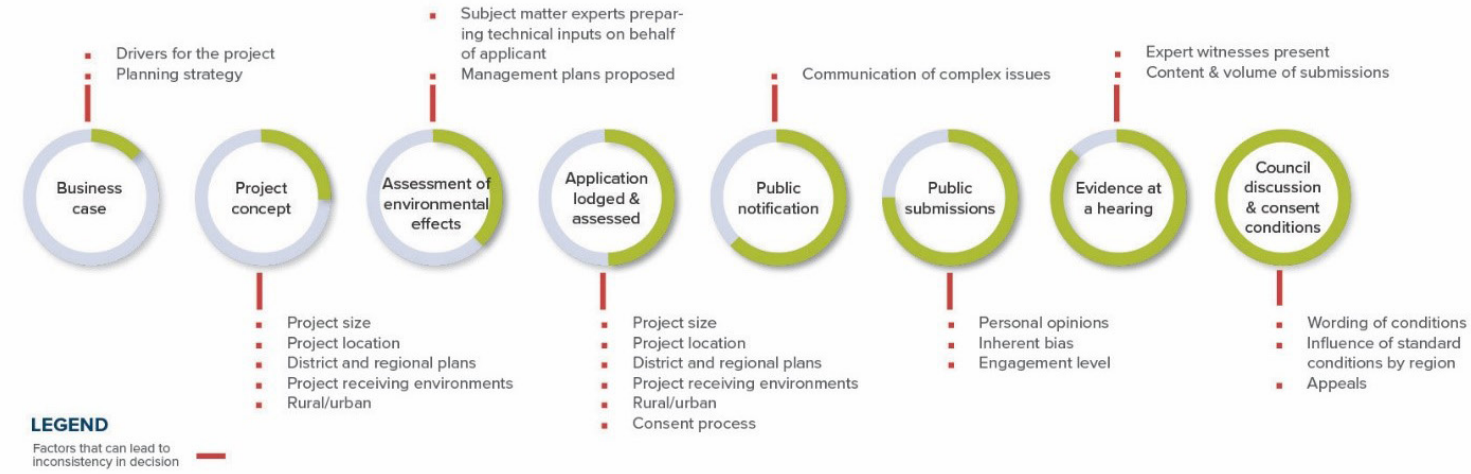
HOW CONSISTENT OR FLEXIBLE SHOULD CONDITIONS BE, AND WHO DECIDES?

Waka Kotahi dictates or has significant influence over the designation conditions, so any matters of inconsistency may be addressed directly by Waka Kotahi. (Regional and district RMA conditions and the outcome of Board of Inquiry processes are imposed by external decision makers.)

Local authorities establish policy and manage resources specific to their local environments and communities. Variability between projects is essential to support and protect New Zealand's diverse environment.

Consent requirements are more specific for potentially significant effects and where there's keen interest from council officers and submitters. For regulators, high specificity implies a high level of certainty that adverse effects will be managed appropriately. However, when conditions are very specific, this may limit the contractor's ability to deliver an outcome-focused approach to managing the effect in question.

PROJECT TIMELINE



Factors that introduce variability in the environmental management requirements for a roading project

WHEN SHOULD ENVIRONMENTAL SCREENING BE DONE?

There are several steps within the business case and consenting process. Factors at each step that contribute to inconsistency between consent requirements can be cumulative, leading to potentially dissimilar sets of conditions being applied across projects.

The point-of-entry stage is the most impactful stage of the business case process for an environmental screening assessment. This is when investment decisions are made and the project can be directly shaped. The researchers recommend that Waka Kotahi point-of-entry guidance and templates should be amended to recommend application of the environmental screening tool at this stage.

FURTHER RECOMMENDATIONS

Other recommendations that will deliver better environmental outcomes and value for money include:

- using a strategic business case project screen to inform key project decisions, including the cost of addressing adverse effects at the point-of-entry stage
- ensuring that monitoring results are reported to road-controlling authorities so that specific environmental outcomes can be measured
- researching whether more prescriptive RMA conditions generate better environmental outcomes than less prescriptive conditions
- developing a national guidance document that standardises the terminology and structure of project management plans.

FURTHER RESEARCH

The researchers found that more stringent requirements were applied to more sensitive environmental aspects. However, further research is needed to confirm this and could include:

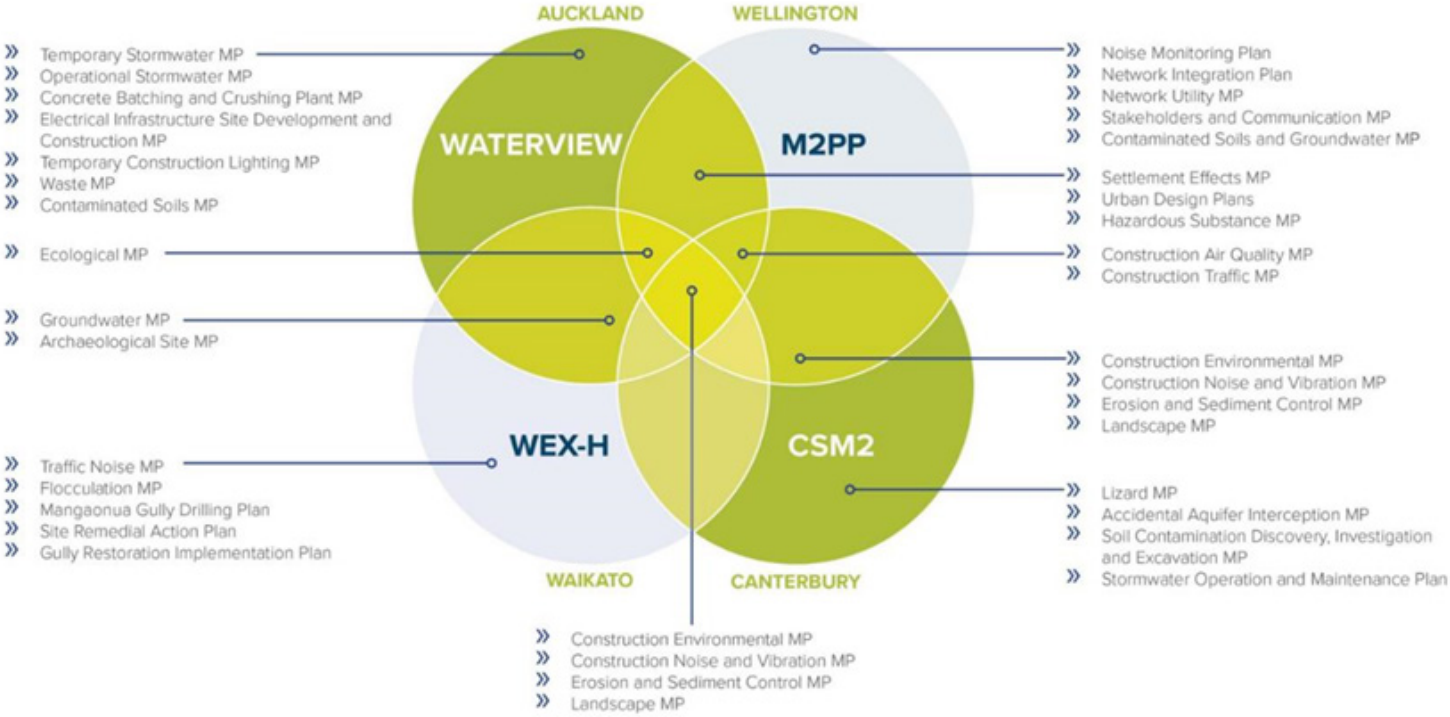
- interviewing regulatory staff
- reviewing compliance reports
- post-construction monitoring.

CONCLUSION

Applying systematic approaches to roading projects that inform consistent decision making and manage effects on the environment will provide more stakeholder certainty and streamline these processes.

The review's findings can also be applied to consenting processes and projects in general.

Further information and the research report are available here.



Management plans required by RMA conditions for the four large-scale case studies

RR 673 – A review of variability in environmental regulatory requirements for roading construction projects across New Zealand, Waka Kotahi NZ Transport Agency research report. Available at **www.nzta.govt.nz/resources/research/reports/673**