

Version	Date	Last edited By
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Pipe Renewals Guidance Programme Update

This is a general update to keep interested parties abreast of progress with the Pipe Renewals Guidance Programme. The aim will be to provide these regularly: feel free to circulate as necessary.

Work streams

There are a number of pieces of work that are, or are close to, getting underway this year that will form the first useful outputs from the *Evidenced-based Investment Decision Making for 3 Waters Networks* project. These are:

- Resilience of Three Water Networks to Natural Hazards
- Decision Support Framework
- Update of New Zealand Pipe Inspection Manual

Resilience of Three Water Networks to Natural Hazards

This piece of work is being contracted to Beca and it will be led by Marcus Gibson and Melanie Liu. An initial workshop was ran at the University of Canterbury with representatives from Beca, Opus, Christchurch City Council, Wellington Water, National Lifeline's Committee, Harrison Grierson and the Quake Centre. From this workshop it was agreed that the scope of the guidance should cover:

- An integrated approach to assess and plan for improved resilience for 3 waters service delivery. The focus will be on use by engineers and asset managers to enable them to provide balanced and informed commentary to elected members and other decision makers.
- Natural hazards (earthquake, faulting, landslides, flooding, sea level rise, fire, loss of critical supporting infrastructure, etc.)
- Pipe assets from water treatment plants to wastewater treatment plants, but excluding these assets.
- Post-event reactive approach and pre-event proactive approach
- Engineering + emergency response + service delivery
- Providing information to the decision support framework being developed by Opus.

Decision Support Framework

This piece of work is at the centre of the Pipe Renewals project. The initial scope is aimed at developing the 30-year infrastructure plans in the context of both a large and a small water authority. Using different degrees of sophistication and source data, the aim is to build up a picture of the benefits and costs of using different asset management decision making processes. Importantly, it will also form the basis for business cases that can be developed by water authorities for future investment into pipe renewals programmes.

The decision support framework will inform the whole project in regards to the priority areas that need to be developed. It is envisaged this project will be revisited on a regular basis as other guidance documents feed into it. The work is being undertaken by Opus and funded by Watercare.

Update of New Zealand Pipe Inspection Manual

During 2016 and funded with assistance from Quake centre and EQC, ProjectMax was engaged to scope the required changes to the New Zealand Pipe Inspection Manual (NZPIM). This project involved industry wide surveys and a broad representation on the review group. The review scope identified one issue that needs to be resolved before the rewrite can be undertaken; namely whether to keep the current NZ condition coding system or to move to an international condition coding schema. The industry will be consulted on the question and once it is resolved funding will be sought to begin the update process. Hopefully this will begin in the latter half of 2017.

NZ Metadata Standards

One of the aims of the Pipe Renewals project is to provide clear guidance for practitioners in the 3 Waters on how to undertake the processes set out at a high level in the International Infrastructure Management Manual (IIMM). The project is based on the need for nationally consistent data. In this regard, the project has been set up as a possible implementation path for the NZ Metadata Standards. Currently Land Information New Zealand has funding to integrate feedback from the first drafts of the standards, run industry workshops on those changes and also complete a business case to look at implementation options. It is envisaged that, at some point in the future, the Pipe Renewals project and the NZ Metadata Standards will merge into a single investment decision framework that allows the best available national data and decision making process to inform local infrastructure investment.

Further information on the above can be downloaded from the Quake Centre Resource portal here:

<http://resources.quakecentre.co.nz/3-waters/>