
Lifelines group studies – publicising outputs

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ABSTRACT

The Wellington Lifelines Group (WeLG) and the Wairarapa Engineering Lifelines Association (WELA) have a history of publicising the results of studies they have completed. These comprise a WeLG report released in 2012 highlighting anticipated restoration times of utilities following a rupture of the Wellington fault, the WeLG Programme Business Case in 2019, a framework of Planning Emergency Levels of Service of WeLG members in 2023 and a transport vulnerability study and a risk framework released by WELA in 2022 and 2025 respectively. All these documents could be seen to be leading in their technical fields, however the decisions to publicly release them provided the public and the emergency management sector opportunities to learn about the impacts of hazard events in the Wellington region. They also provide all parties better information on which to plan for future events. This paper briefly outlines the nature of the above elements of work and highlights some challenges and benefits of the publication of such studies.

1 INTRODUCTION

The Wellington Lifelines Group (WeLG) and the Wairarapa Engineering Lifelines Association (WELA) are ‘Lifelines Groups’, as defined in the Lifeline Utilities and CDEM: Director’s guideline for lifeline utilities and civil defence emergency management groups [DGL16/14] (NEMA, n.d.). Both have, as part of their Charters, the following text:

“WeLG/WELA’s objectives are:

- To encourage and support the work of all [member] organisations... in identifying hazards and mitigating the effects of hazards on lifeline utilities.

- To create and maintain awareness of the importance of lifelines, and of reducing the vulnerability of lifelines, to the various communities within the Wellington/Wairarapa region.”

As such, both are focussed on understanding the risks to infrastructure, working towards the mitigation of those risks, and on informing the respective communities of such risks.

In this paper, after a short description of the governance and organisational structures of the two organisations, projects that have been publicised by WeLG and WELA are summarised, before challenges and benefits of publicising initiatives are explored. A short conclusion notes the key aspects of this dynamic.

2 WELG AND WELA STRUCTURES, MEMBERSHIP AND GOVERNANCE

The organisational structures of both WeLG and WELA are similar. Both have a Chair and Deputy Chair, a Project Manager and then a Steering Committee comprised of one, or two, representatives from each member utility. Both Chairs are experienced politicians, having served as a Member of Parliament and/or as Mayors and in Regional Council governance roles. Both, however, act as Chairs of WeLG and WELA as individuals, not in their political roles. From the roles as Chair, both have provided strong leadership to the respective lifeline groups. The Project Manager role implements the projects identified by the respective groups.

Most decisions taken at WeLG and WELA are carried out by consensus within the groups, providing strong directions once agreement has been reached.

3 STUDIES, REPORTS AND INFORMATION RELEASED

The following is a summary of key projects that were taken by the respective lifelines groups.

3.1 WeLG – “restoration times” (2012)

In 2012 the Wellington Lifelines Group (WeLG) publicly released a report titled “Lifeline utilities restoration times for metropolitan Wellington following a Wellington fault earthquake” (or “restoration times”). The logic for the release of this report was that the WeLG members had some knowledge of the potential damage that a major earthquake would cause to the infrastructure in the region and could, to some degree, predict the potential infrastructure service outage times that would result. The document was, largely, a compilation of sets of text provided by the WeLG members edited together with a Foreword provided by the WeLG Chair, context on the regional earthquake hazard, some overall report assumptions, and comment on mitigation actions that were being carried out to reduce the outage times. Tables 4 and 5 in that report gave summarised ‘survival’ and ‘operational’ restoration times (different levels of service) that were estimated to be achievable by the utilities (WeLG, 2012).

The need to compile this information and publicly release it was largely driven by the Chair of WeLG, who worked to gain the agreement of the WeLG members to release the information. This was an interesting dynamic as the WeLG Chair was, at this time, also the Chair of the Greater Wellington Regional Council, making for an interesting tension between promoting the region as a place to live and do business against the acknowledgement of the hazards that the region faces. The Chair, however, believed that it was necessary to let the public know of the vulnerabilities, as perceived by the WeLG members.

One of the key aspects of the agreement within the Group to publicly release the report was that the Group’s Chair would head any media engagement on the report, whilst WeLG members were welcome to release parallel media releases at the same time as the report release. The report was picked up in the national media, being the lead news item at the noon news report on TV1 (the state broadcaster) and was covered in the press. In general terms, whilst noting the outage times stated in the report, the anecdotal feedback received

by WeLG was positive in that most residents of the region understood that there were vulnerabilities, but this report usefully provided an understanding of the scale of the outages from one large-scale hazard.

This report, to some extent, provided the template for the release of subsequent reports and documents by both WeLG and WELA, through the mechanism of the Groups' Chairs releasing the reports through their known media outlets, giving the WeLG and WELA members certainty that the experienced Chairs would handle the information sensitively, providing context for the reports and the information in them.

3.2 WeLG – Programme Business Case (2019)

Recognising that the 2012 'restoration times' report highlighted vulnerabilities, but was lighter on pointing towards specific mitigation works, a high level of effort was put into developing a mathematically modelled set of damage and outage information/figures from the same hazard (a rupture of the Wellington fault), however this document presented a costed and economically tested Programme Business Case of works. This provided, as noted in the Foreword of that document, a 'compelling case' to invest in the resilience of the metropolitan Wellington area. This world-leading work was funded collaboratively by Central Government, Local Government and the WeLG members themselves. It was fundamental in demonstrating to funders and decision-makers that such investment into resilience was economically beneficial to the region. As such, the decision by the WeLG members to publicly release the document was relatively straightforward, as the case to invest was proven and the target audiences – the Wellington region's community (as tax and rate payers) and regulatory and political decision-makers were intended to equally see the report (WeLG, 2019).

As for 'restoration times', anecdotally the report was well received, with the local newspaper stating "Now that we have a better idea if what inaction may cost, we can start discussing what we are prepared to invest to mitigate what we can. That conversation needs to start now." (George, 2019). This reflected other feedback received by the Chair on this Business Case. Indeed, the NZ Lifelines Council (NZLC) has advocated for similar business cases to be carried out by other regions across New Zealand (NZLC, 2023).

3.3 WeLG – Planning Emergency Levels of Service (PELOS) operational framework (2023)

Recognising that emergency response and recovery, like many other endeavours, needs a goal to aim for, the members of WeLG collaborated on the creation of a framework of 'planning emergency levels of service'. Through this, they set targets for delivery of services during and after a major damaging event. Intended to be a template that could be used by other regions, the framework was released as an academic paper (Mowll, 2023).

3.4 WELA – Wairarapa transport resilience study (2022)

WELA released a transport resilience study in 2022, demonstrating how the road network would be impacted by major earthquakes or storms (WELA, 2022). It was released on the agreement of all members, and, like WeLG's 'restoration times' document, it was seen to be in the public good to provide the information in the study to the public and to the emergency management sector. It was released to the local newspaper (Wairarapa Times Age), which reported on the document. The study demonstrated road vulnerabilities to earthquakes and storms. Whilst published by a different lifelines group, with a different Chair, the logic outlined for the release of the WeLG 'restoration times' document (Section 3.1) was the same regarding informing decision-makers and the community on the existing infrastructure vulnerabilities.

3.5 WELA – Risk framework (2025)

The WELA members collaborated on the creation of a risk framework, aimed at understanding key infrastructure resilience risks in the region. Once complete, a short article on four key risks – to the transport, energy, water and flood protection infrastructure in the region – was released to the local newspaper, along

with an infographic that showed the risks in a simply comprehensible form. As the local newspaper did not publish the article, WELA paid for a full-page ‘advertorial’ to raise awareness in the local community (WELA, 2025).

While the article didn’t point towards specific mitigations, it did include the key text: “You can help to raise awareness of the need to strengthen our infrastructure lifelines by supporting your district council, asset owners and key decision makers to prioritise and fund improvement projects.” As this media release was carried out during early stages of local council elections, this was seen to be engaging, to some extent, with the political process, to advocate for investment in reducing the infrastructure vulnerabilities.

3.6 WeLG and WELA – PELOS webmapping tool (2025)

Following the release of the WeLG PELOS framework in 2023 (Section 3.3), WeLG and WELA released a webmapping tool that demonstrates where PELOS can, and cannot, be achieved, by existing infrastructure, according to the modelling carried out for the WeLG PBC (WeLG and WELA, 2025). This webmapping also allows residents to check the levels of service, and the likely walking distances required to collect water and food, and to access a Community Emergency Hub following a rupture of the large-scale, representative, Wellington fault hazard. As such, it was directly aimed at providing public information on the realities of infrastructure service loss following a major event.

4 CHALLENGES AND BENEFITS OF PUBLICISING INFORMATION

For context, it appears from hazard modelling that the Wellington region faces similar hazards to its infrastructure to most other regions of New Zealand. Both WeLG and WELA have been proactive in highlighting to their respective communities the consequences of hazard impacts, and resulting loss of service, on the infrastructure in the region. This can be used as a model for other lifelines groups to follow. Also, for context, whilst headed by the respective Chairs of both WeLG and WELA, the media releases would not have proceeded without the full agreement and support of the lifelines groups’ memberships. It should be noted, however, that the members of WeLG and WELA come from local government (councils, for road and water networks), State Owned Enterprises and privately owned companies. With very different governance structures, there was a range of perceptions from the groups’ members on the need to release any information. Such differences, where they were meaningful, were addressed through discussion between the respective Chair and the relevant members, and resolved, for example through understandings on the messaging provided with the report, or the means of releasing the information to the media (for example by the Chair heading the release and messaging). Any such discussions were made easier as progressive media releases on following reports and information were carried out, as WeLG and WELA members saw that previous releases had been successful and well handled by the WeLG and WELA Chairs.

One key challenge, as noted in Section 3.1, was for the WeLG and WELA Chairs to balance their roles as political leaders and Chairs of the respective lifelines group, who wanted to promote the benefits of living and investing in the region against the knowledge of the hazards in the region. From the politician’s perspective, this was a decision that, effectively, was best made by a politician, working in the best interests of their electorates.

The benefits of making the reports and information publicly available were, firstly letting the relevant communities and the emergency management sector aware of the realities of the vulnerabilities, enabling emergency preparedness and planning to be carried out reflecting the realities of the impacts. Secondly, as for WeLG’s PBC (Section 3.2) and WELA’s transport resilience study and risk framework (Sections 3.4 and 3.5), the need to mitigate the existing vulnerabilities through applying for funding to improve the region’s infrastructure was made clear. This has made it easier for the WeLG and WELA members to gain approval for projects that mitigate vulnerabilities to be funded, through their normal funding processes. Finally,

through the public release of information, both WeLG and WELA can become trusted voices in resilience discussions in the region.

5 CONCLUSION

The public release of WeLG and WELA reports have proven to be positive, communicating to the public, the emergency management sector and, importantly, decision makers for the funding of mitigation projects. The handling of these media releases by experienced Chairs (for WeLG and WELA) has led to high levels of trust from the WeLG and WELA members that such releases will be managed well. Any challenges in releasing any reports or information were mitigated, again, through the professional handling of the releases by the Chairs.

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