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Committee Rural Services and Wairarapa
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Wairarapa Engineering Lifelines Project

1. Purpose

To inform the Committee of the completion of the Wairarapa Engineering Lifelines Association project and the release of the report – “Risk to Lifelines from Natural Hazards”.

2. Background

2.1 The Wairarapa Engineering Lifelines Association – WELA, was formed in 1996 at a meeting at Solway Park. Following on from the Wellington Engineering Lifelines Study, District Councils, Wellington Regional Council, Emergency Services, Transport and Utility providers, and consulting engineers agreed that a Wairarapa lifelines group should be formed and a district wide study proceed.

2.2 It was agreed that WELA would:

- Study Wairarapa engineering lifelines and critical facilities, identify their levels of risk to identified natural hazards, and suggest measures which would reduce these risks.
- Support existing lifeline providers by updating and refining information on hazards and mitigation measures, and by participating in research on engineering lifelines.

2.3 A Hazard Group undertook the large task of assembling Wairarapa hazard information with specific research contracts let to “fill the gaps” in several key areas. Other groups undertook the tasks of defining lifelines and assessing their vulnerabilities to hazards. Five Task Groups undertook the project:

- Natural Hazards
- Civil Services – *water, sewage, stormwater, flood protection*

- Transportation – *roads, bridges, rail, aerodrome, fuel*
- Electrical, Communications and Broadcasting
- Critical Facilities - *Police, Fire Ambulance Hospitals, Civil Defence*

2.4 The Association Chairman is John Garrity who took over from Frank Cody part way through the project.

3. Project Management

3.1 The Project Manager was George Butcher whose vision and commitment has driven the project throughout in a totally voluntary capacity. Greater Wellington staff have provided GIS, administrative and secretarial support. Successive Hazards and Emergency Management Officers have applied much of their time to the project with Sam Barrow putting the report together.

3.2 Members have given their time voluntarily with the support of their employers. As there are only a small number of engineers in the Wairarapa, this made the task a large one for individuals.

3.3 The project has taken considerably longer than anticipated, but a quality reference has resulted. Sale of SOE's and ongoing restructuring made achievement of the required work for several lifelines frustrating and most difficult to achieve.

3.4 The project has been largely funded and supported by Greater Wellington with smaller contributions from District Councils, EQC Foundation and Powerco.

4. The Project Report

4.1 The report was launched at the WELA Annual Meeting on 16 May 2003 where a presentation was made to George Butcher in recognition of his dedicated and vital role in the project.

4.2 The report can be considered in four parts:

1. Natural Hazards

This brings together information on all the natural hazards that can affect engineering lifelines in the Wairarapa and includes the results of several WELA commissioned research projects. This information has never before been available for the district and provides a comprehensive future reference for a range of purposes.

2. *Engineering Lifelines*

Following the Task Group structure, each chapter describes the engineering network, assesses its vulnerability to natural hazards, and recommends mitigation measures to either eliminate or reduce the vulnerability.

There are crossovers between lifelines. Roads are usually the key to quick restoration of power and other utilities.

3. *Critical Facilities*

Buildings that are critical to the response to a hazardous event were screened for their vulnerability to life safety and loss of function. Masterton hospital was the largest facility screened, along with police, fire and civil defence buildings. Vulnerabilities are described and mitigation measures suggested.

4. *Vulnerability Charts*

Qualitative Assessment Charts are set out for each network component. The approach developed for this work was based around the Risk Management Standard AS/NZS 4360. This approach was subsequently adopted by the National Lifelines Group as the NZ standard.

4.3 Individual copies of the report will be provided to members at the meeting.

5. Relevance to Emergency Management

5.1 The new Civil Defence Emergency Management Act 2002 takes a proactive as well as a reactive approach to emergency events. It sets identification and analysis of risks to life and property from natural and man made hazards as the first step to reducing the impact of such events on communities.

5.2 It also recognises that there need to be a range of agencies involved including lifeline utility owners as well as central and local government, emergency services, individuals and businesses. The work of engineering lifelines groups such as WELA is also recognised.

5.3 Under the recently formed Wellington Civil Defence Emergency Management Group, it is likely that a sub group will be established for the Wairarapa. The WELA report provides an excellent base document that will assist the development of new emergency management directions in the Wairarapa.

6. Communications

Publicity including media liaison has been undertaken by WELA. No additional publicity is proposed.

7. Recommendation

That the Committee receive the report and publication and note their contents.

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