



Reviewing Original Lifelines Project Reports



October 2008





Auckland Engineering Lifelines Project



Traditional Approach

HAZARDS + ASSETS = DAMAGE RATIO



Consider interdependencies

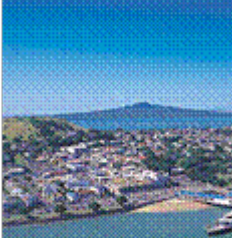


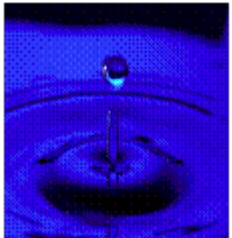
Estimate recovery times



Identify mitigation, readiness, response and recovery actions for individual utilities and AELG



And we have acted on many of these recommendations

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- **Utility-CDEM protocols set up and LUC role and Exercise to test**
 - **Priority utility sites and routes regularly updated**
 - **More detailed work on ash impacts – on people and on utilities**
 - **Review of recovery resources and conflicts**
 - Followup work on generators and fuel
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Others have taken different approaches



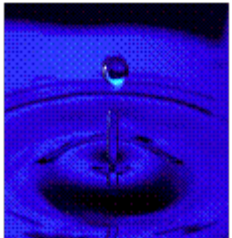
- Simple workshop, broad-based assessments (no algorithm)
- GIS-based risk analysis – traditional project using modern applications
- Identification and risk assessment at hotspots (as part or separate to main lifelines projects).
- Other?



So now it's time to take stock



- **We have**

- Regional hazard information for volcano, cyclone, tsunami and earthquake – some of which is out-of-date.
 - Assessment of damage to critical infrastructure identified in 1998
 - Updated critical infrastructure collected for a 'hotspots' study and assessment of risks at those hotspots using original hazard information.
 - etc
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And our questions are

- Where did you get most benefit from your lifelines projects?
- Do you believe the more detailed scientific approaches warrant the extra effort?
- Is it worth updating with new hazard and asset data or will the results largely be the same given the broad nature of the assessment?
- What new tools and techniques are there?
- Can we practically use these tools? Do we have the data?
- Will our utilities have the resource and drive to participate in 'AELP 2'?
- Is it better to provide the tools to utilities to do their own detailed analysis or carry it out as a group?

Our approach will be:

- Scoping 'phase 1' without commitment to ongoing work.
- Confirm utility objectives
 - Individual site analysis
 - Broad infrastructure impacts?
 - Economic impacts?
- Confirm critical assets
- Review latest hazard information and prioritise
- Review international tools and approaches
- Identify information requirements and other resource demand and 'gaps'.
- Develop phase 2 project brief.