

National Lifelines  
Forum 2015

Lessons  
Learned



Our water, our future.

## Wellington: Too Important to Lose

- All water services are important and need to be addressed
  - Water supply is first cab off the rank as a regional initiative
- Big differences to Christchurch
  - Type of economic activity
  - Proximity of water sources
  - Linear nature of reservoirs
  - Different topography
  - Geographic overlaying of critical services
  - Unfortunate location of critical services

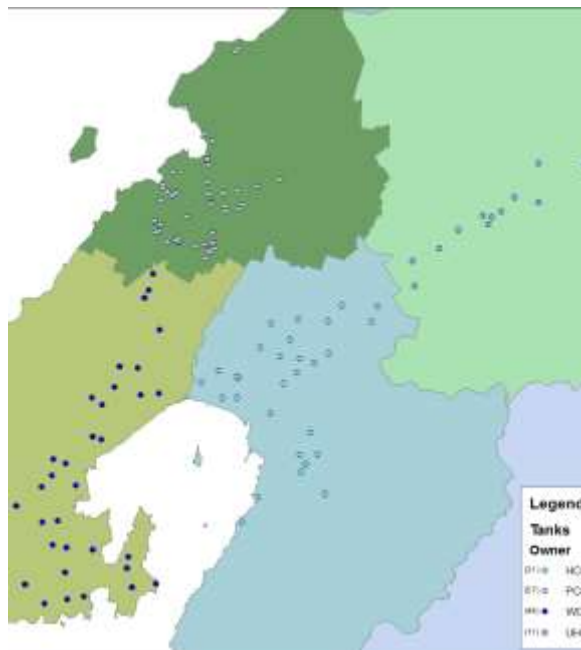
## What We Know

- Areas of potential liquefaction
- Propensity of vulnerable water supply infrastructure and likely failure rates
- Vulnerability at Wellington fault locations
- Likelihood for watercourse and harbour pollution from wastewater
- Need for coordinated emergency response
- Benefits of material selection and potential design weaknesses



## What We Have Done

- Previous studies on likely damage and restoration times
  - eg bulk water restoration time to eastern suburbs of Wellington City – 65-80 days
- Installation of emergency water storage tanks in schools and key locations –
  - 145 tanks in region (5-25,000 litres)
- Provided for but not committed to cross harbour pipeline
- Embarked on Better Business case to establish post earthquake levels of service and viable options to meet these LOS
- Establishing network resilience improvements to service distribution points across the region based on geospatial based modelling
- Commit to a programme of seismic assessment and strengthening of critical infrastructure



## Emergency Water Tanks



145 tanks in region (5-25,000 litres)

## What We Don't Know

- How to address firefighting needs post earthquake
- The water supply and wastewater services required in the CBD after an earthquake
  - Who will be there
- Priorities and methods for improvements to resilience of network and/or self sufficiency of consumers