Climate Change and Local Authorities

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Focus of talk

- Long term land use planning
- Asset management planning
- Not about the things WCC is doing to reduce impacts (eg CO2 emissions, building design etc)

Climate Change

- Is happening and we have accepted we need to plan ahead
- Responsibility to do long term planning under the Local Government Act
  - LTCCP
  - AMP's
- Council has a duty to consider effects of activities under the Resource Management Act

Probabilities

- 2% increase in temp globally over 200 years
- 1 – 3.5% increase in temp for Wellington
- Rainfall lower generally but more extreme
  - Increased intensity 8%
  - Increased frequency between 1% - 28%
  - 24hr rainfall event once every 35 yrs by 2030 (currently once every 50 years)
- More variable wind
- Sea level rise 18cm – 59cm by 2100

New Policy Guidance from MfE – Sea level rise

- Councils should plan for a minimum increase of 0.5m by 2050, and consider the consequences of higher rises of at least 0.8m by 2090.
- For longer planning timeframes, a rise of 10cm per decade beyond 2100 should be used

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Key Threats for Wellington

- Rainfall intensity
  - Slope instability (over 200 small slips last winter)
  - Flooding
  - Stormwater in sewage – impacts on treatment plant
- Storm surge
  - Combination of sea level rise, wind and rainfall
  - Sea walls over topped
  - Roads inundated

What is WCC doing about this risk

- Take account in our long term land use planning
- We identify risk in our District Plan and put in place special controls
- We provide specifically for climate change impacts in our Asset Management Planning

Managing hazards in long term land use planning

- Understand the context for Wellington
  - Highly urbanised
  - High growth
  - Climate change one of many considerations in where growth should be directed
  - For highly urbanised city such as Wellington, its more about mitigation and future proofing
  - Very difficult (impossible) for us to stop growth

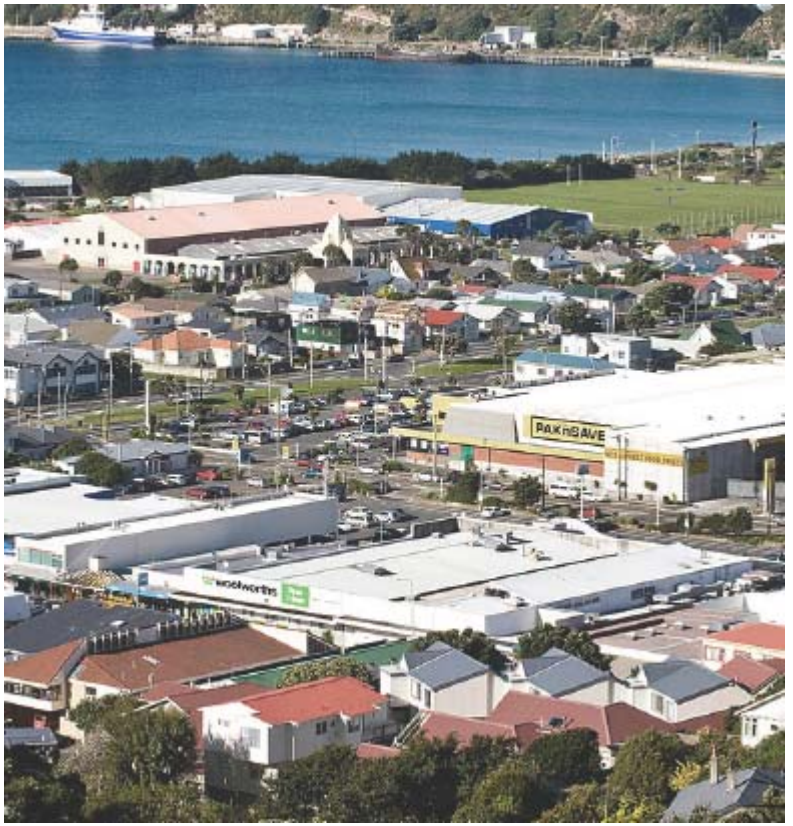
Managing hazards in long term land use planning (continued)

- Understand threats/risks
- Understand the capacity of existing infrastructure to cope (generally good)
- Even in problematic areas, growth can be an opportunity to fix things

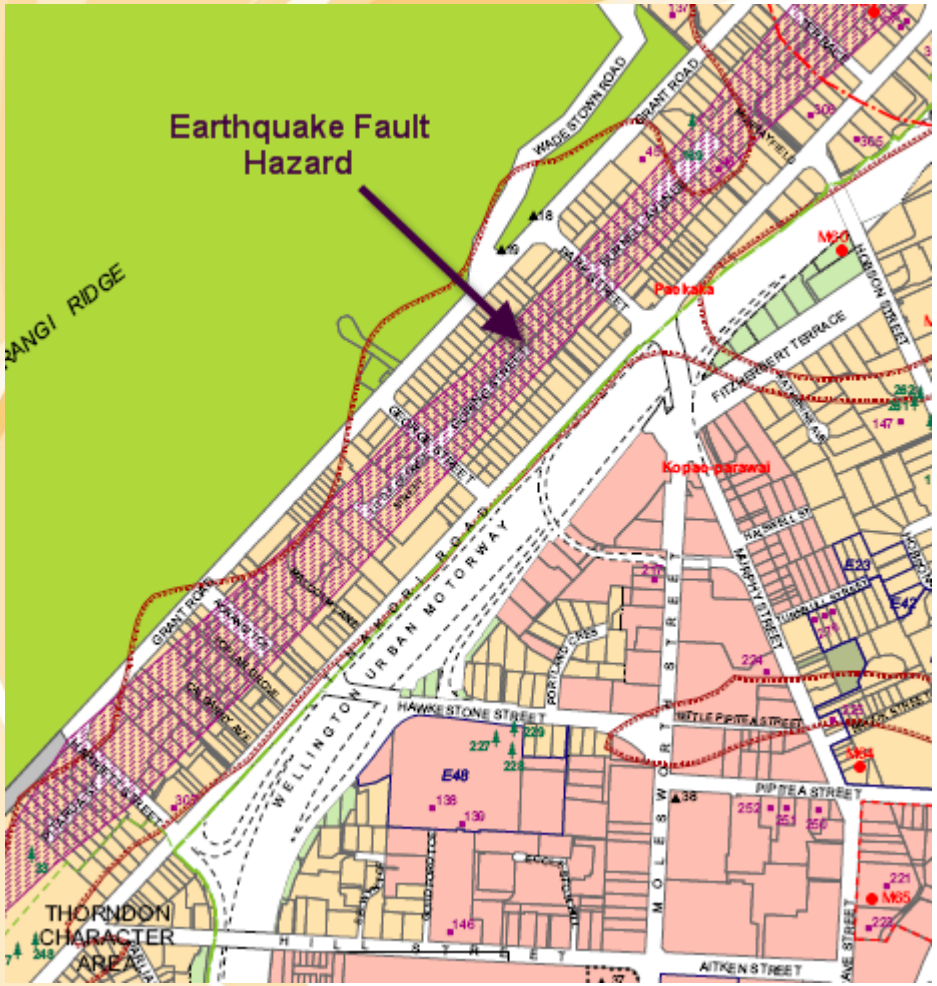
The Mapping Process

Example - Kilbirnie town centre

- Area singled out for growth
- WCC developing a town centre plan to help manage how growth occurs
- Approach:
  1. Develop climate change scenario (eg, 1m, 2m & 3m increase in sea level rise)
  2. Undertake a strategic analysis of the implications on infrastructure
  3. Identify what needs fixing, and where and when fixing is not an option



Managing hazards through the District Plan



- Hazards identified in our District Plan
  - Flood zones (on-going programme to update)
  - Earthquake hazard
- Planning controls in these areas
  - Increased floor levels
  - Decreased development potential

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Managing hazards through Asset Management Plans

- This is where we allocate $ for infrastructure upgrades and improvements in design
- We have been thinking about the implications of climate change for a sometime now in our asset management plans
- Some of the key areas related to climate change:
  - Stormwater capacity upgrades
  - Stormwater quality upgrades (and new design guides)
  - Water storage and pumping stations
  - Road maintenance and upgrades

Conclusion

- WCC is taking climate change seriously
- We include climate change considerations in our long term planning for growth and development
- Retreating in highly urbanised areas (most of the City) is unlikely unless a significant increase in threat is recognised
- We have been taking (and will continue to take) a precautionary approach to Asset Management Planning - to ensure risk is reduced and managed over time