

Earthquake-Prone Building Policy

2011-2016

Building Act 2004

- Sections 131 and 132 require TAs to establish EPB policies and specify how the policies are to be established, what they are to include and when they are to be reviewed.
- While the Act requires each TA to develop its own EPB policy to address the key points set out in section 131(2), the legislation does not prescribe any particular policy form or approach. Rather, it leaves to TAs and their communities the responsibility to develop a policy approach appropriate to their district.

Building Design

- The definition of an earthquake-prone building is set out in section 122 of the Act and in the related regulations that define 'moderate earthquake'. It encompasses all buildings, not simply those constructed of unreinforced masonry or unreinforced concrete. Small residential buildings are exempt from these provisions.
- A moderate earthquake is one that generates shaking one-third as strong as, but otherwise identical to, the shaking that would be used to design a new building at the same site.

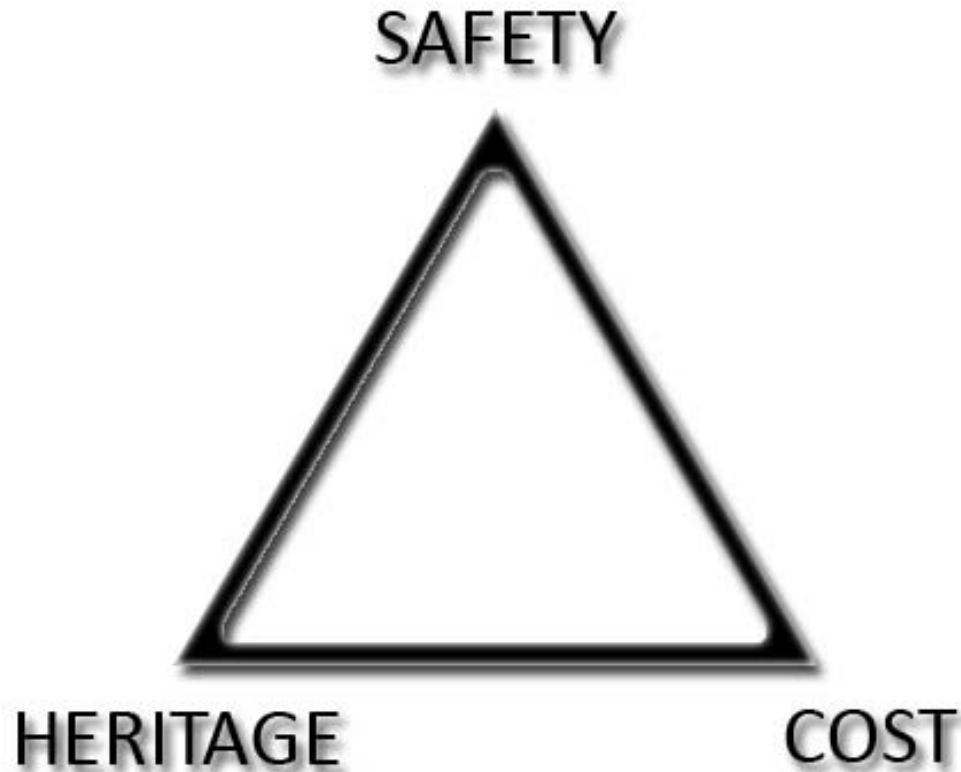
Policy Revision

- Policy updates every five years (2011, 2016, 2021 etc.) 2011-2016 policy became operative on Nov 24th 2011
- Auckland Council's draft policy presently set at 34% minimum strength requirement
- Incorporation of lessons from Wellington, Gisbourne and Christchurch
- Available on Auckland Council website

Why in Auckland?

- 1.5 million inhabitants
- 37% of the country's GDP
- Large quantity of building stock built for a low seismicity environment
- Low Hazard, High Vulnerability
- Measured, long-term approach required

Balancing Objectives



Safety

- Complete collapse scenarios unlikely. Possible candidates being assessed by the Department of Building & Housing
- Focus mostly on partial building collapse risks
- Protection of pedestrians and vehicle access routes (for emergency services) critical

Cost

- Desire to minimise undue financial impact on building owners and tenants
- Best approach a synergistic one that is aligned with other development drivers
- Improved technology under development that might bring costs down
- No direct financial support at present

Heritage Provisions

- Extended timeframes to assess and upgrade Heritage buildings
- Presently limited financial support from Council
- Collaborative efforts with other territorial authorities, academic institutions and commercial providers to develop cost-effective means of upgrading structures

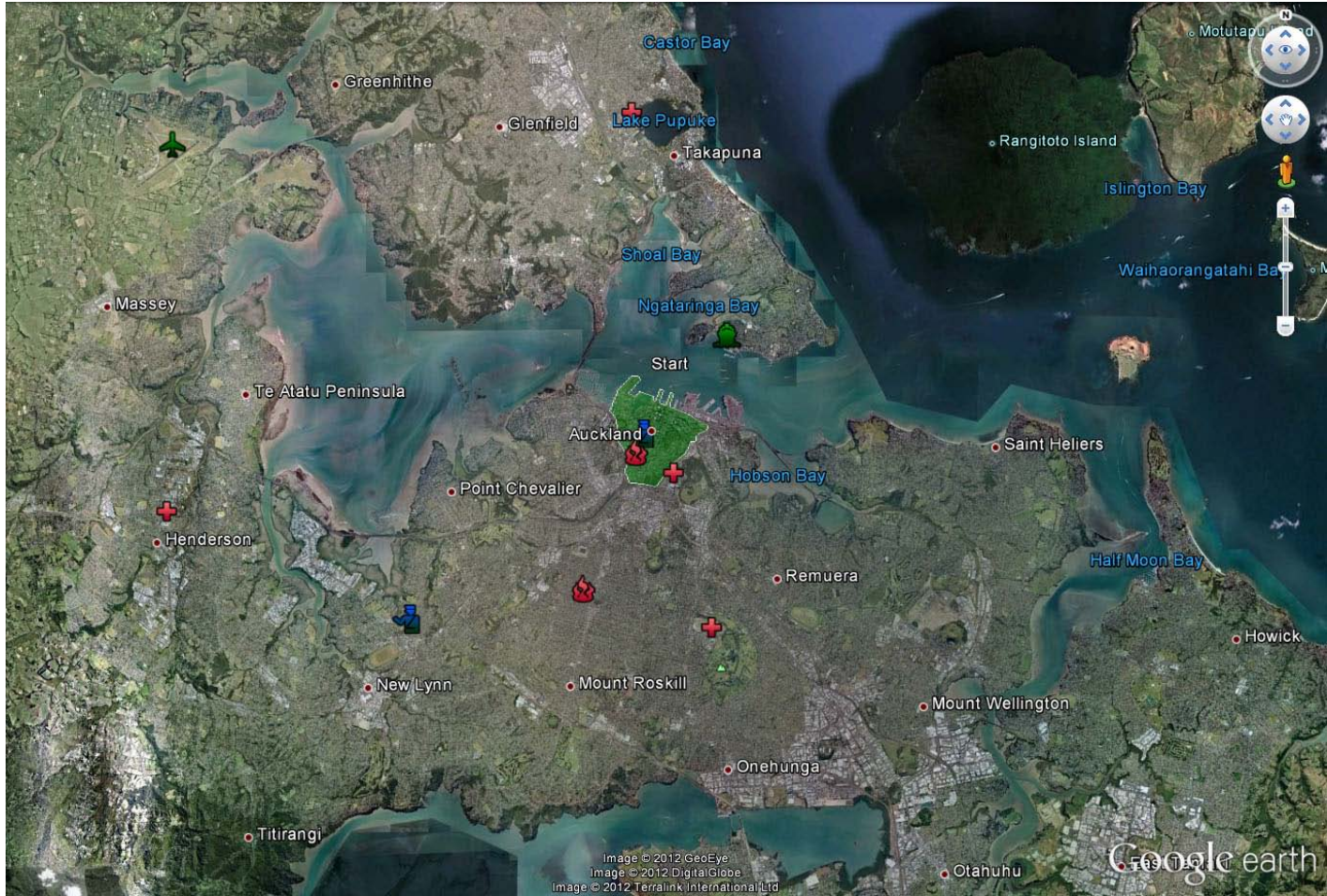
Implementation

- Assessments started early 2011, Importance Level 3 & 4 (5 being handled by appropriate agencies)
- Buildings qualify for assessment if they are commercial or large residential and were built prior to 1976
- First letters sent Jan 2012 – batch processing

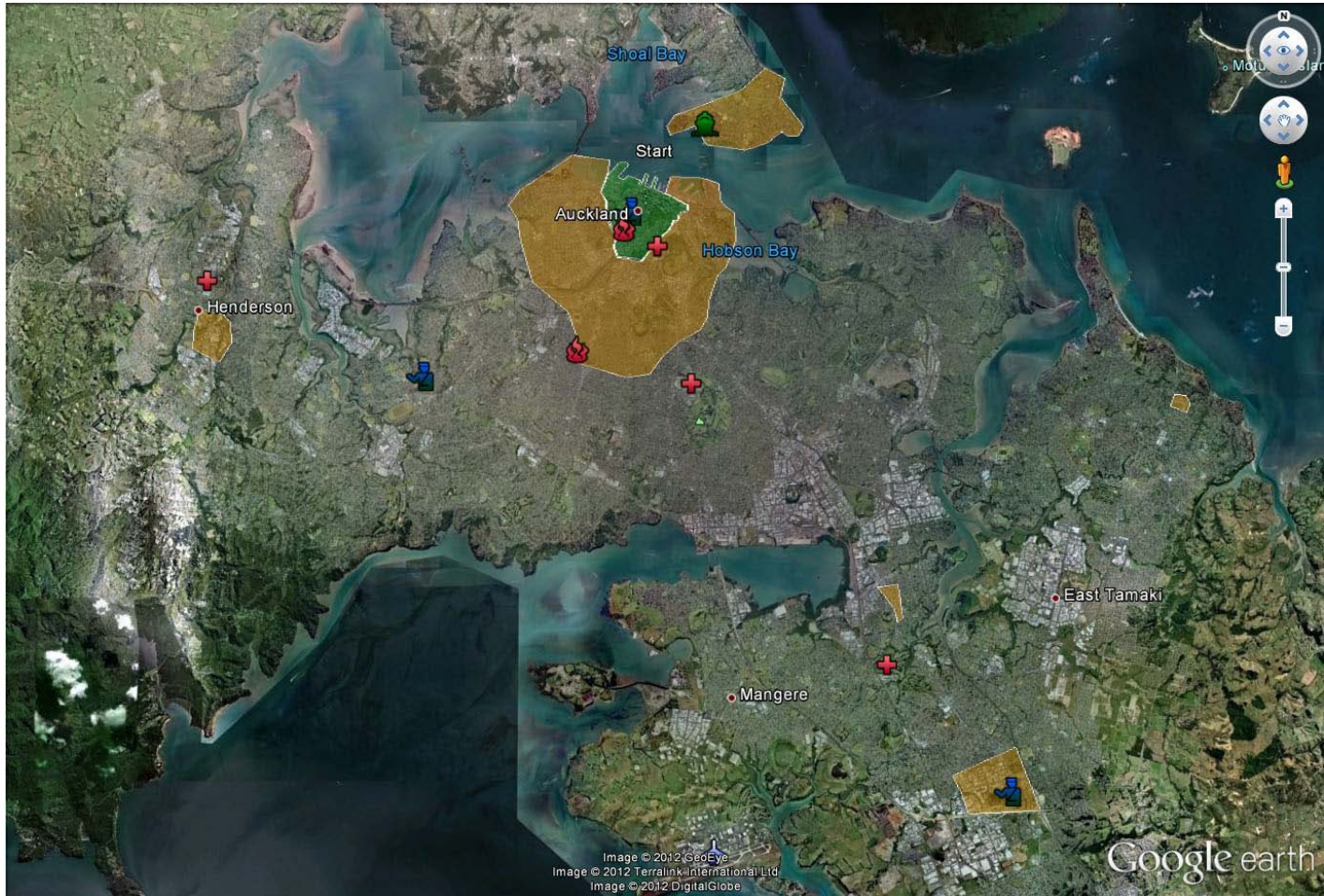
Timeframes

| | Assessment | Upgrade |
|---------------------------------------------------|------------|---------|
| Importance Level 4 (Hospitals, Utilities etc.) | Dec 2011 | 2021 |
| Importance Level 3 (Malls, Stadiums etc.) | Dec 2012 | 2022 |
| Importance Level 2 (General Commercial etc.) | Dec 2015 | 2045 |
| Heritage | Dec 2015 | 2045 |

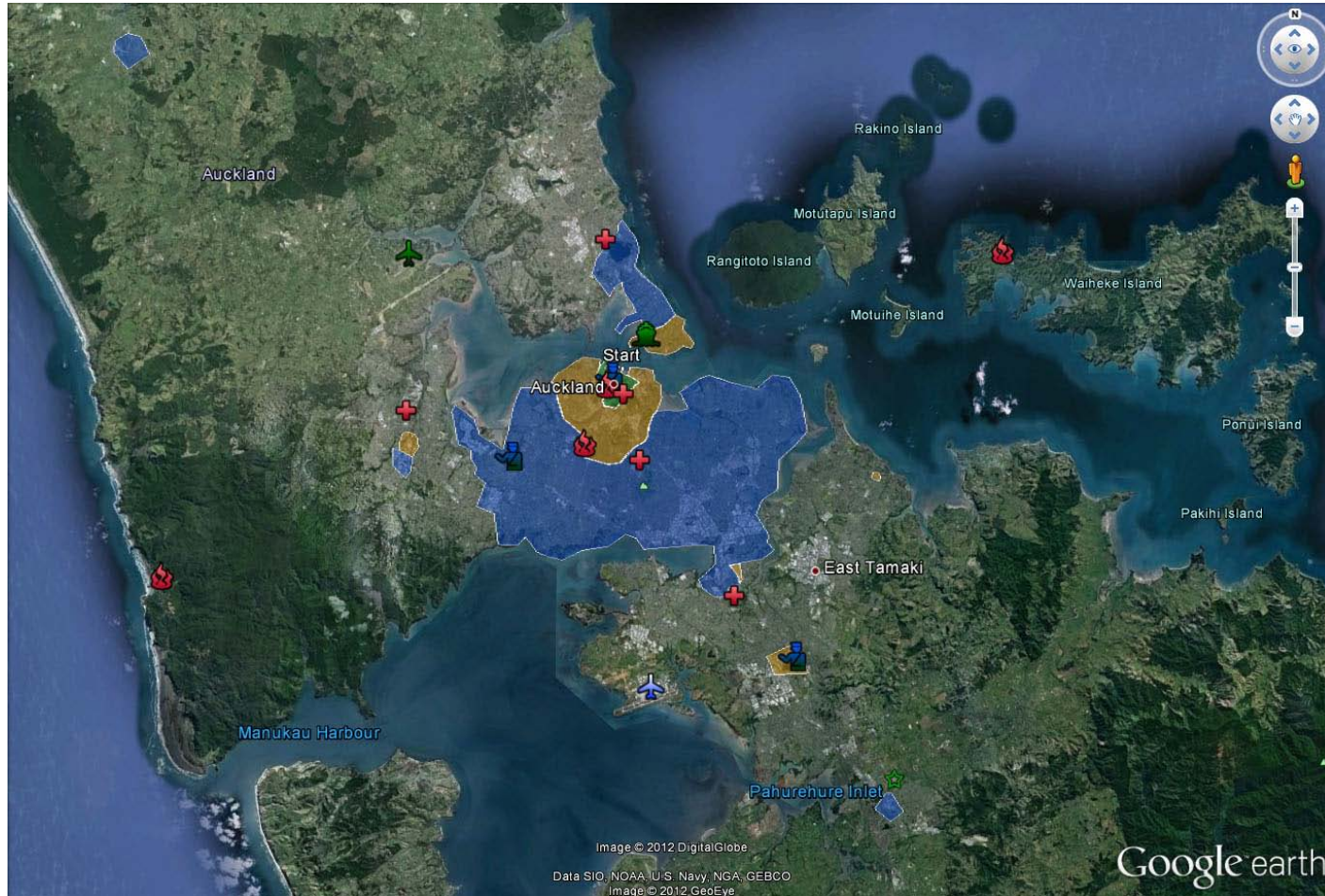
Assessments - 2011



Assessments - 2012



Assessments - 2013



Figures

- ~18000 commercial and large residential buildings in the greater Auckland region
- Estimated 4500 in total that are estimated to qualify for assessment
- 1465 assessed in 2011
- ~2000 assessed in 2012

Communications

- Letters sent to listed building owners once provisional report is ready (with report attached)
- 3 months given for response
- No large-scale display of EPB information at present
- Process guidebook being worked on in collaboration with Wellington City Council

Response options

- Additional information
- Equivalent seismic assessment (IEP)
- Advanced seismic assessment (DEE)
- No response

Long term

- Encouraging retrofit over demolition
- Redevelopment in-line with Auckland Plan and Local Board plans
- Failure to comply will eventually result in closure of buildings

Earthquake-Prone vs Dangerous

- Earthquake-Prone Buildings a hazard in an isolated but extreme event. These require a considered approach to lessen the long-term risk
- Dangerous Buildings a hazard in day-to-day circumstances. These require an immediate response to address the risk posed by the structure

Potential developments

- Changes likely to arise out of the Royal Commission and subsequent Central Government response
- Impact of technology changes to the way in which buildings are assessed and retrofitted