Land Information New Zealand
Toitū te whenua

Impacts of earth movements on property boundaries

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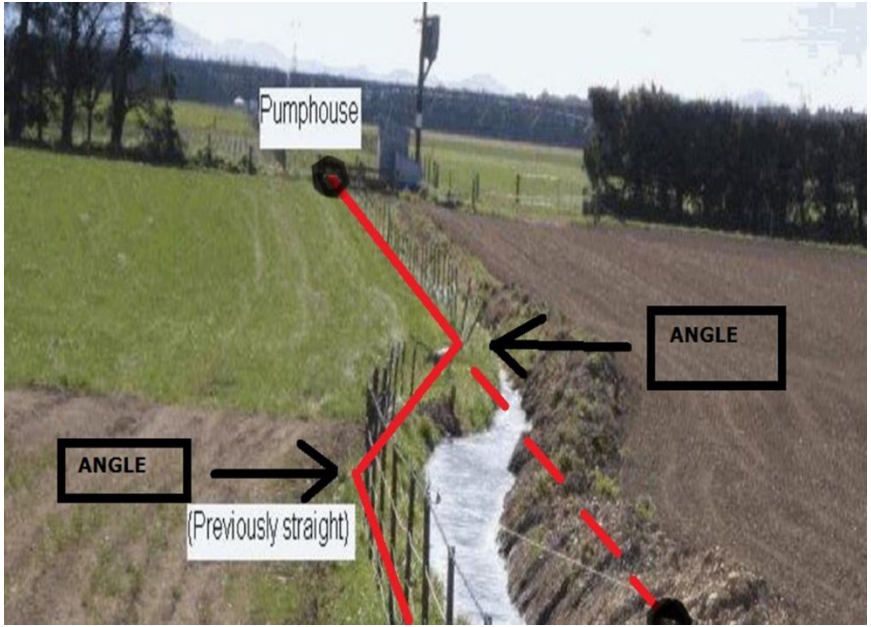
The historic impact on property boundaries

Disruption to property boundaries

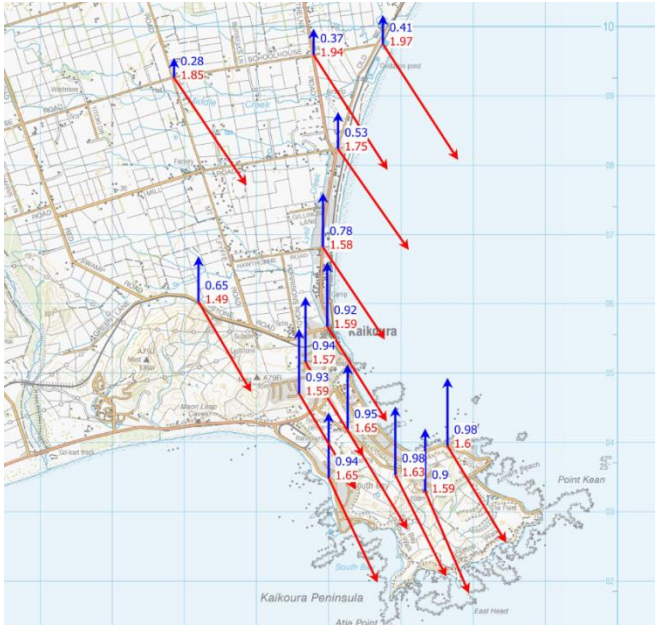
- Ground movements can be:
  - deep seated movement – eg earthquakes
  - shallow movement – land slides or liquefaction
- Such movements result in property boundaries moving

Deep seated movement

Based on long standing survey practice, boundaries move with the deep seated movement



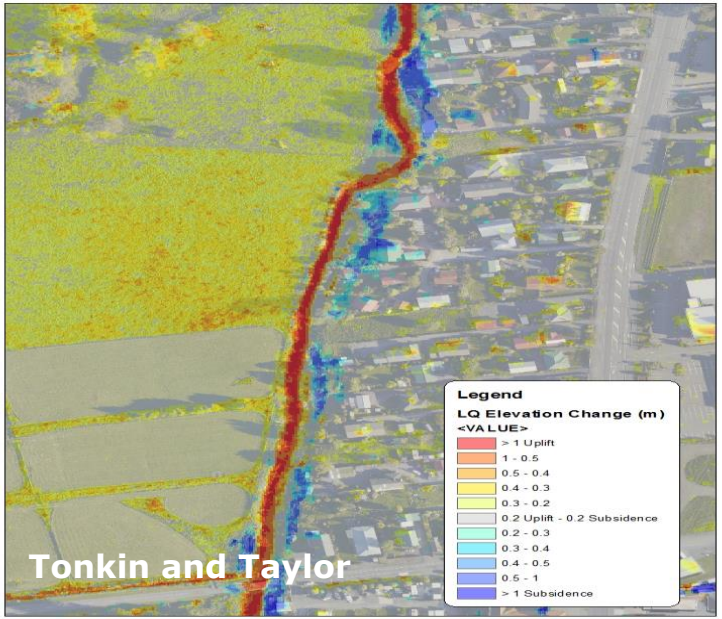
Where a boundary has shear or lateral distortion (normally at a fault rupture) a boundary that was formerly a straight line may now include one or more angles.



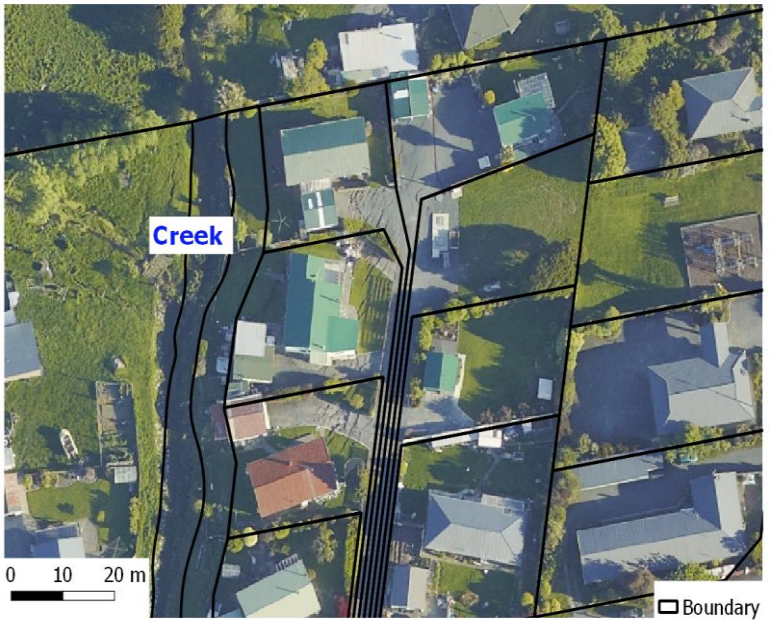
Where there are regional movements (eg Kaikoura) the boundaries move with the regional movements.

Shallow movement

Based on case law, boundaries are reinstated to their pre-event positions



Lyell Creek LiDAR pre and post Kaikoura earthquake shows spreading (blue) away from the creek and compression (red) in the creek.

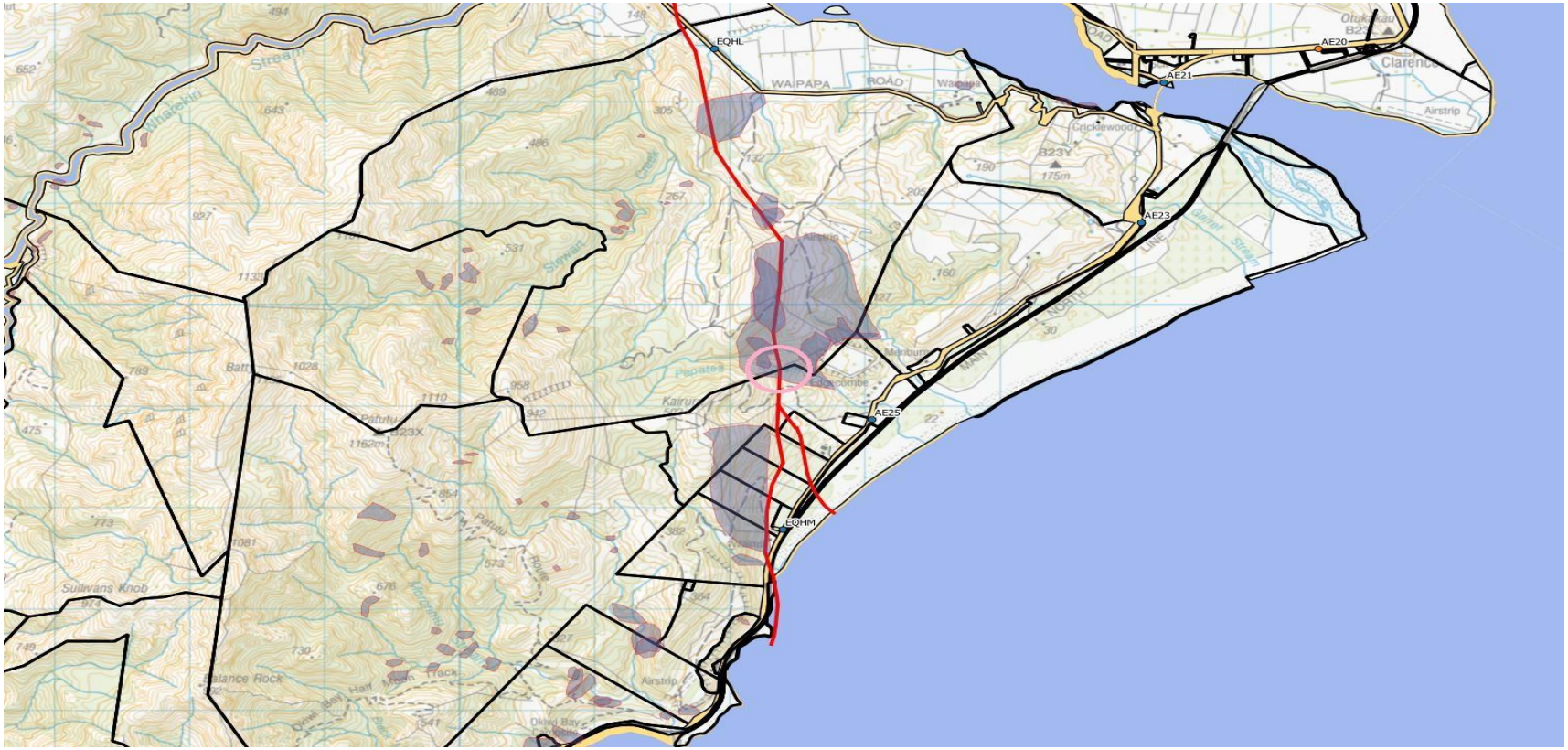


Boundaries will be reinstated in their pre-earthquake positions upon resurvey (note lateral spreading cracks)

Shallow movement – exception to the rule

- Liquefaction in Christchurch was deemed to be shallow movement
- Based on case law relating to landslides, boundaries would have been redefined in their pre-earthquake positions
- This was not universally accepted as it would end up with impractical consequences – eg fences and buildings across boundaries
- 'Canterbury Property Boundaries' legislation enacted stating that property boundaries moved with the land irrespective of the movement being deep or shallow movement

Impact of fault and land slides on boundaries



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