

Melting ice sheets



Second report – impacts of sea level rise

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- Rising sea will lead to flooding on low-lying land near the coast, erosion of many beaches and soft cliffs, and higher and possibly saltier coastal groundwater.
- Three impacts:
 - More frequent flooding of coastal areas, more severe, and more extensive;
 - Erosion – a familiar problem around some of our coasts – will become more widespread;
 - Groundwater linked to the sea will rise and possibly become brackish (more salty).

Coastal flooding

- Record high tides;
- Natural variation in level of sea;
- Low-lying and close to coast.



Coastal flooding



Coastal erosion



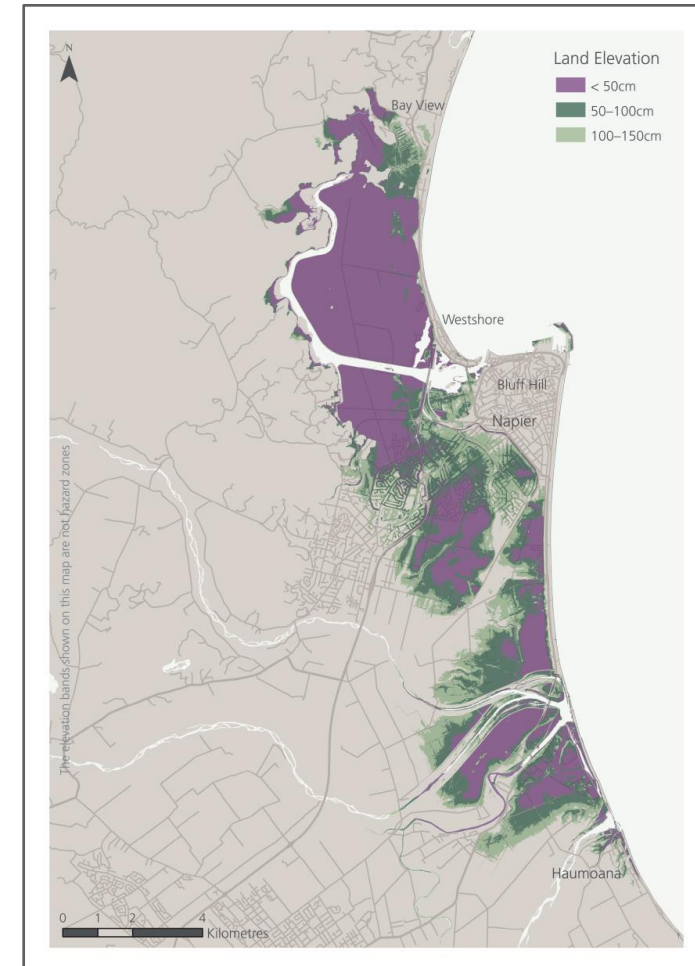
Groundwater



Maps of low-lying coastal areas

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- Place to start – flooding and groundwater;
- Maps of elevation:
 - Up to 50 centimetres – *purple*
 - 50 to 100 centimetres – *dark green*
 - 100 to 150 centimetres – *light green*
- **Not hazard zones – just elevation above spring high tides;**
- <http://www.pce.parliament.nz/publications/regional-land-elevation-maps>.



PCE main conclusions

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- Councils and communities need more help from Government;
- Current direction and guidance not adequate;
- **But there is time to plan, with communities;**
- More important to prepare well than to rush.
- 8 recommendations to local authorities and Government

Impact of environment sector changes for local authorities?

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- Prolonged period of change – since 2009...RMA, water, environmental reporting...
- More change ahead;
- Generally more national direction/less autonomy for local authorities;
- Improved timeliness and plan making;
- Reporting data to CG for environmental reporting;
- Change creates work;
- Some indications sector is under resourced in RMA area;
- Climate change effects and planning/infrastructure.

Thank you for your attention

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Please visit the new PASAI website www.pasai.org for more information and the regional overview reports for the cooperative performance audit reports

PCE website <http://www.pce.parliament.nz/>