Australian Climate Change Adaptation Research Network for Settlements and Infrastructure

Early Career Researcher 12th National Forum and Workshop

Climate Change Risks – Approaches to Resiliency and Adaptive Capacity for Infrastructure

Dr Kate Panayotou

Monday 26 September 2016

Outline

- Engaging with stakeholders and communities - What does resiliency look like, and how to measure the capacity to adapt?
- Case study 1 – Eel River Rehabilitation Project, California
- Case Study 2 – Making Internet Cables “Smart”
- Case Study 3 – Dunedin, NZ – Building a Resilient City – Where to Start?
- Update on Infrastructure Adaptation Panel

Tamaki Drive, Auckland

King tide level at the Western edge, 2014

Residents' group vows to fight coastal hazard zone proposals

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Last updated 17:44, August 25 2015

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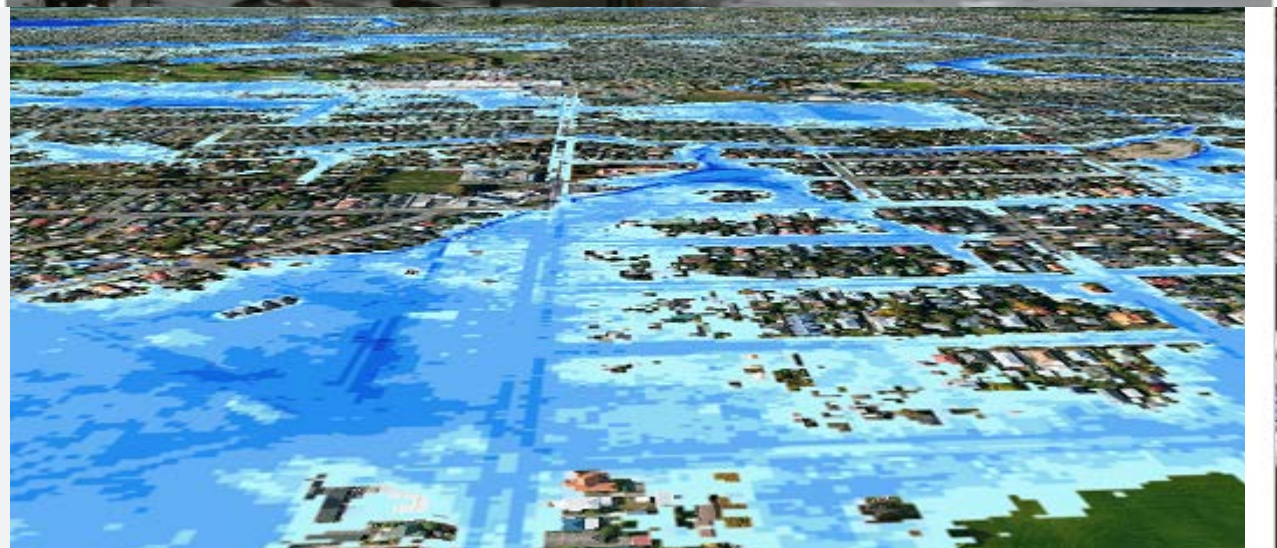
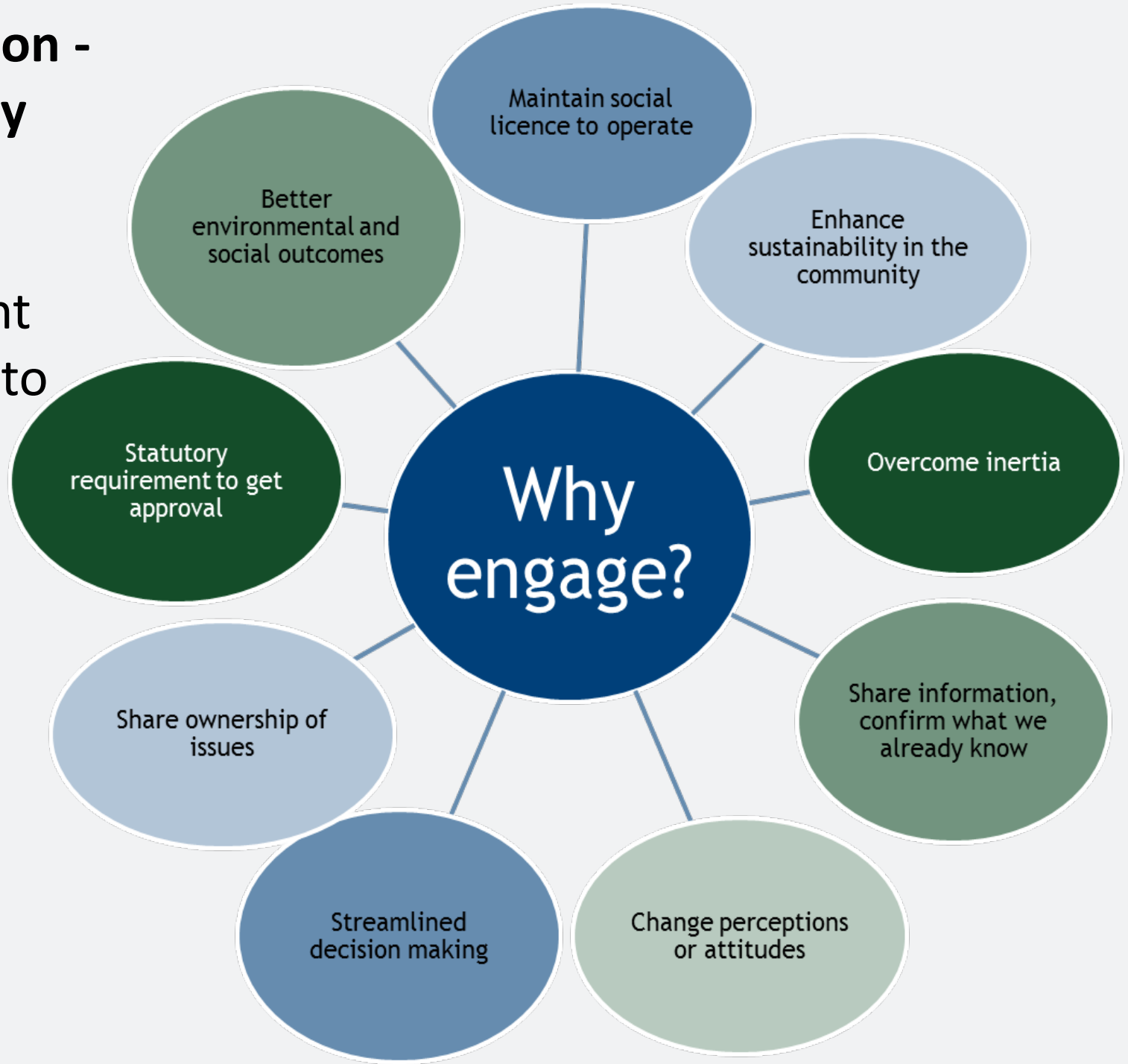


Engagement and Consultation - Stakeholder and Community Interest

What does good engagement look like – different reasons to engage



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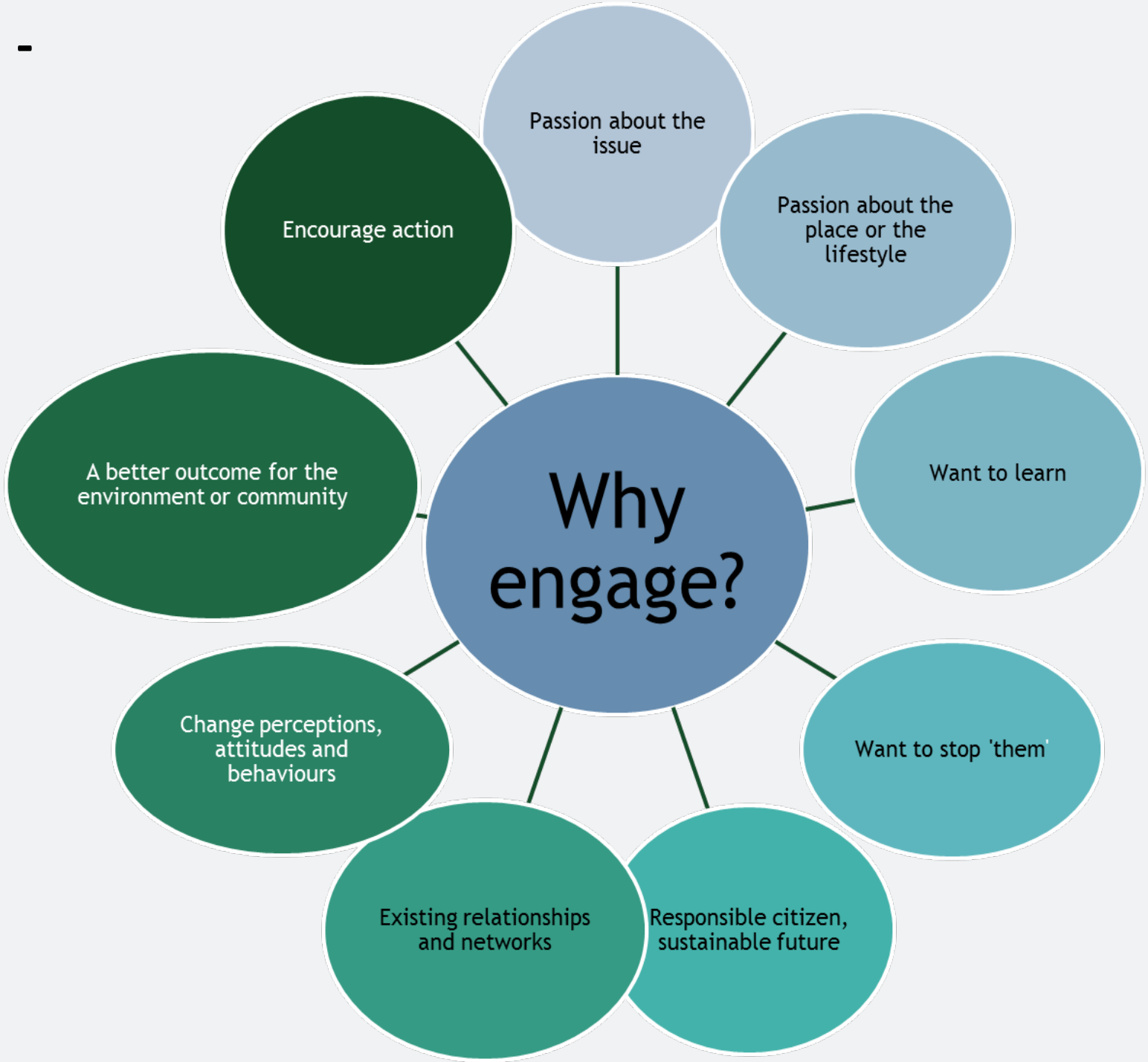
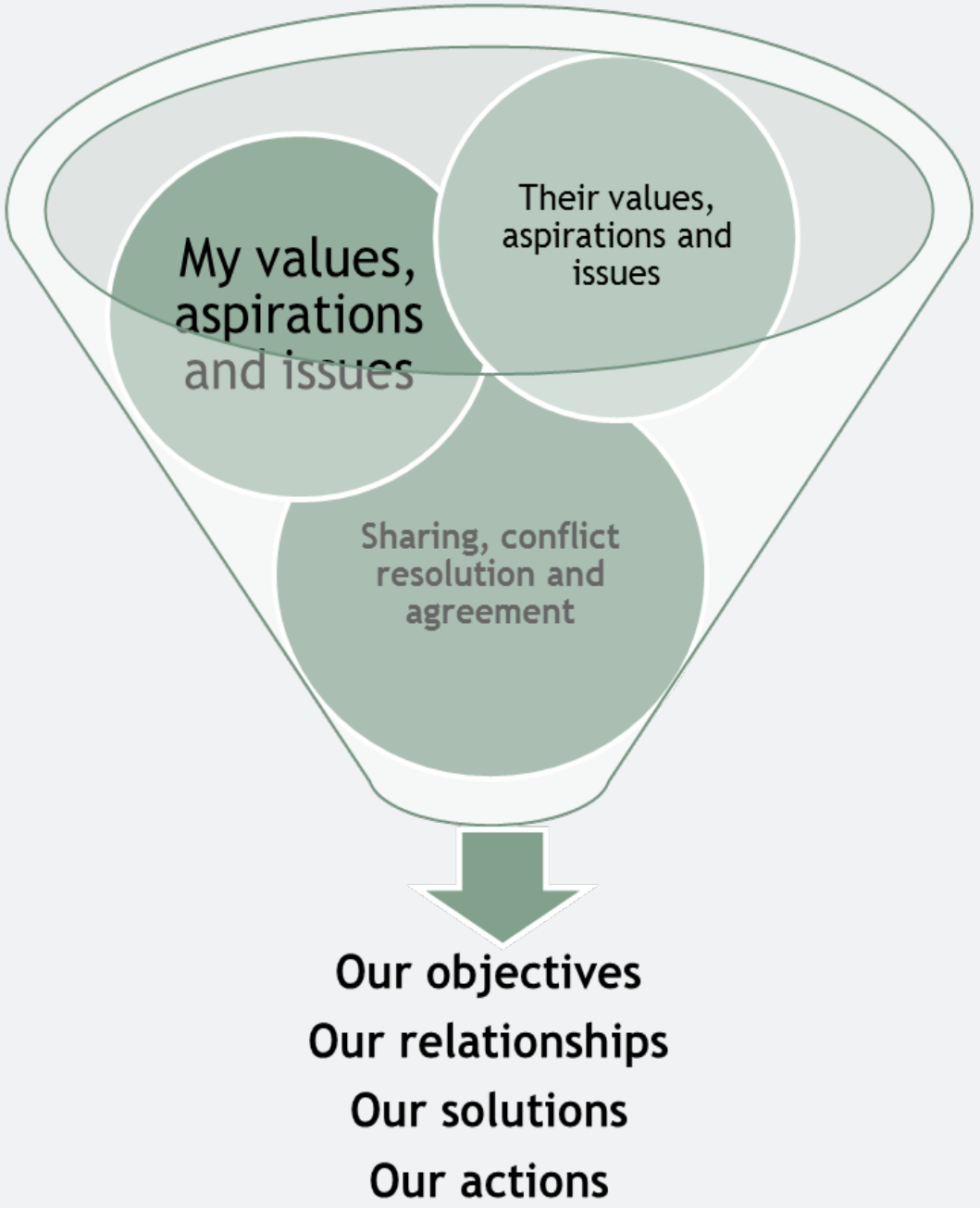
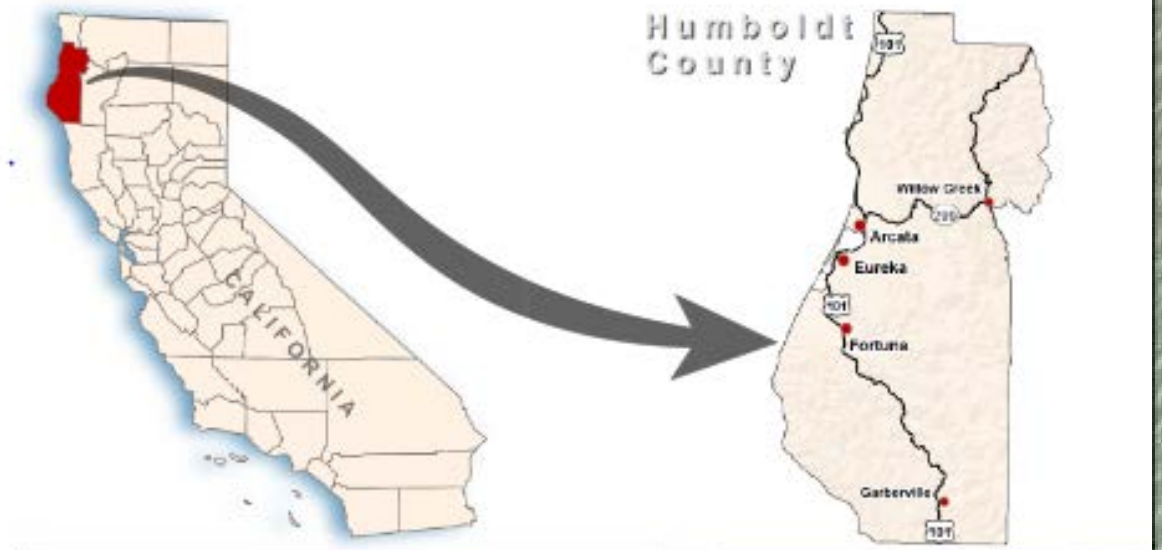


Working Together

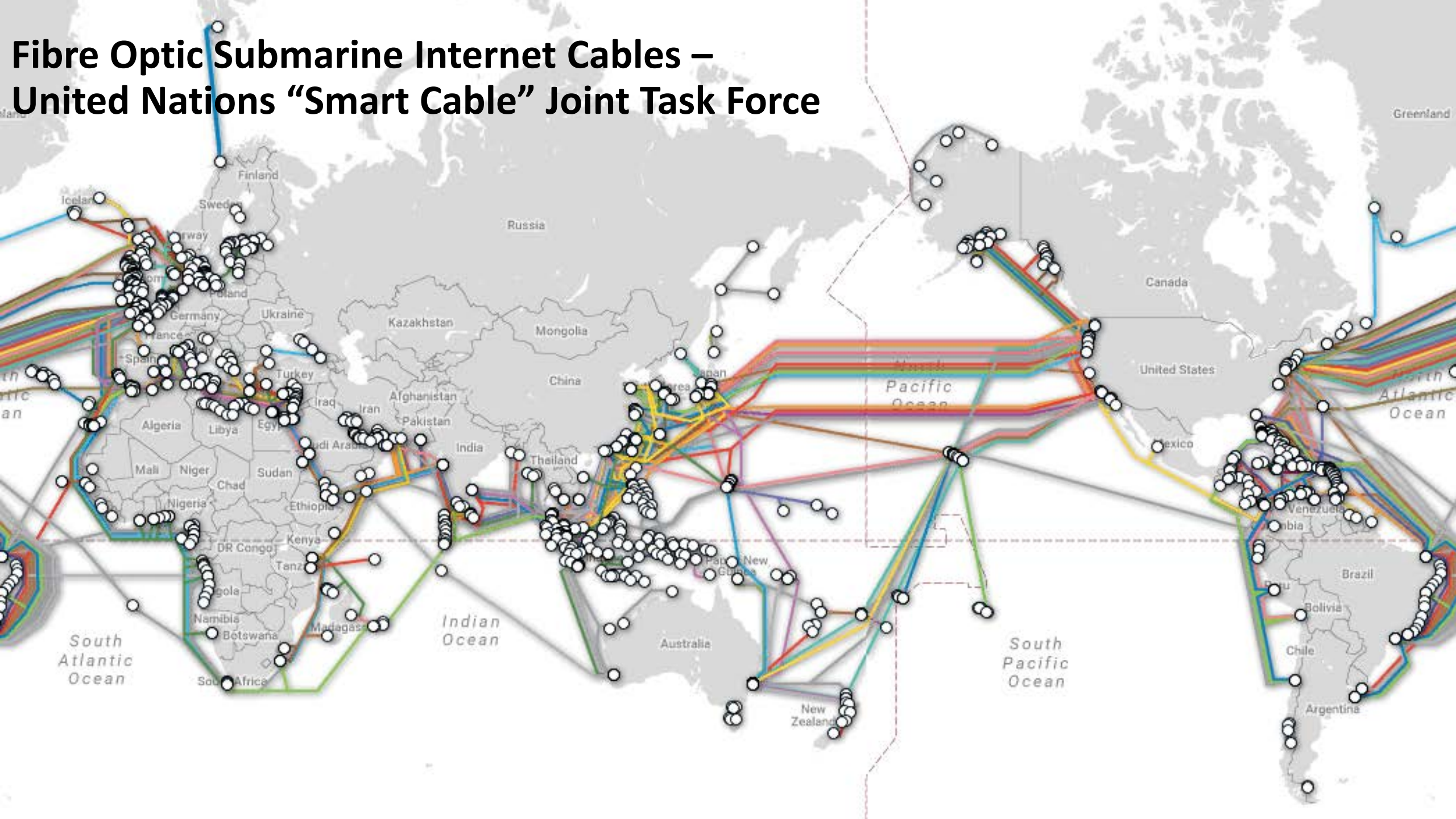
1. Create a community of interest - link them together
2. Target/tailor methods for different communities, interest, purposes
3. Partnership to make efficient use of resources / relationships
4. Actually act – close the loop on good engagement
5. Ask for feedback – the process, evaluation of the outcome



Eel River Rehabilitation Project

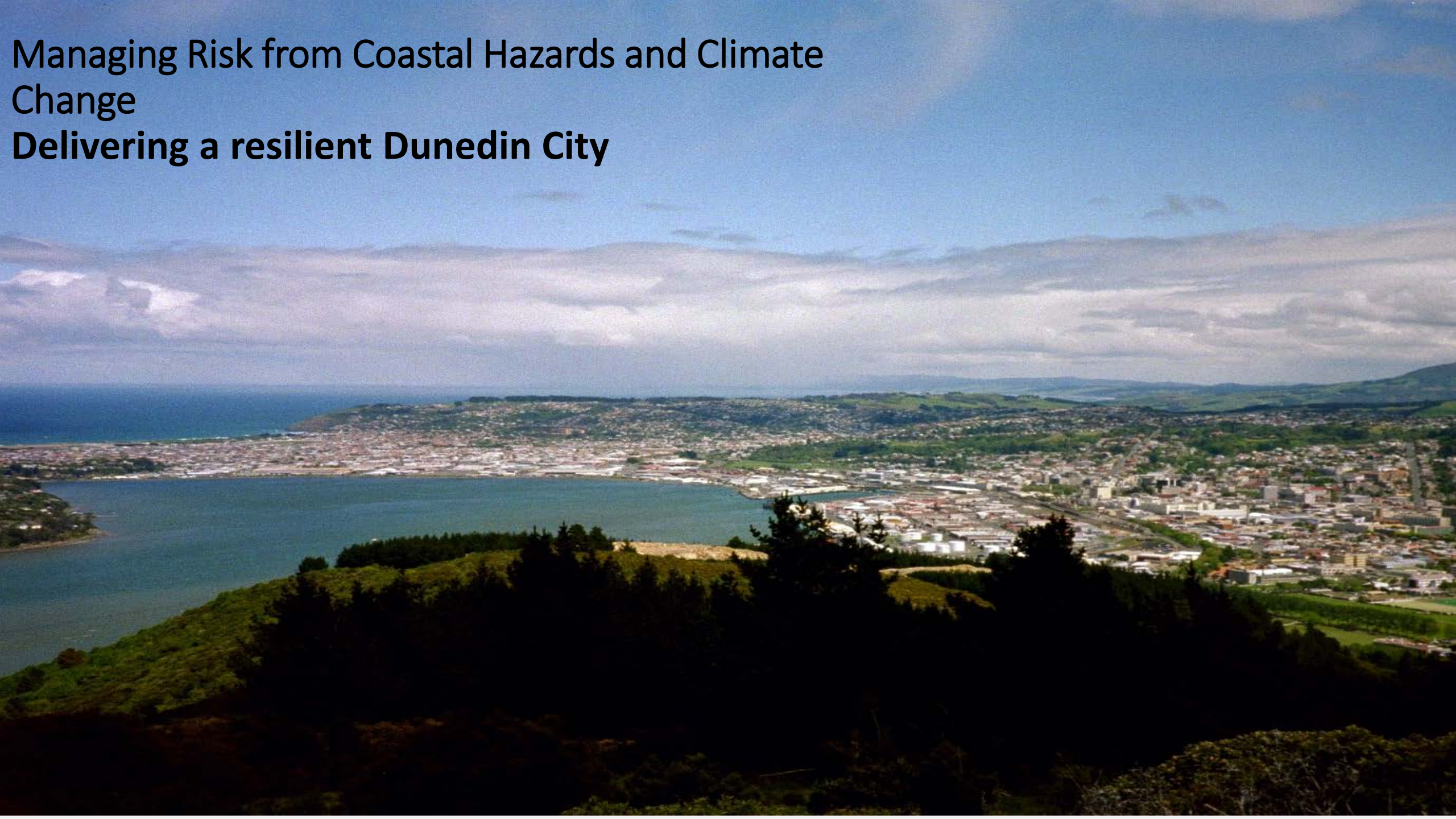


Fibre Optic Submarine Internet Cables – United Nations “Smart Cable” Joint Task Force



Managing Risk from Coastal Hazards and Climate Change

Delivering a resilient Dunedin City



Bringing it all together - What does Dunedin City Council want?

To agree and deliver a work programme that will help Dunedin be more resilient to a change in climate. A programme to deliver:

a) **A climate resilience strategy** for Dunedin that sets out the Council's direction to address risk areas for the City and enable decisions to be made that support the City to be more resilient to change.

b) Improved community **understanding of risk** so they are more able to support decisions on how to manage risks.

c) **Solutions** to manage both short and longer term risks for South Dunedin.

Resilience What does it look like?

A resilient city is one that can **cope with change** or one off events.

This could be:

- a single extreme event like the flooding experienced in South Dunedin;
- medium term change such as beach erosion at St Clair; or
- a long term event such as sea level rise from a change in climate putting pressure on infrastructure and public and private assets.

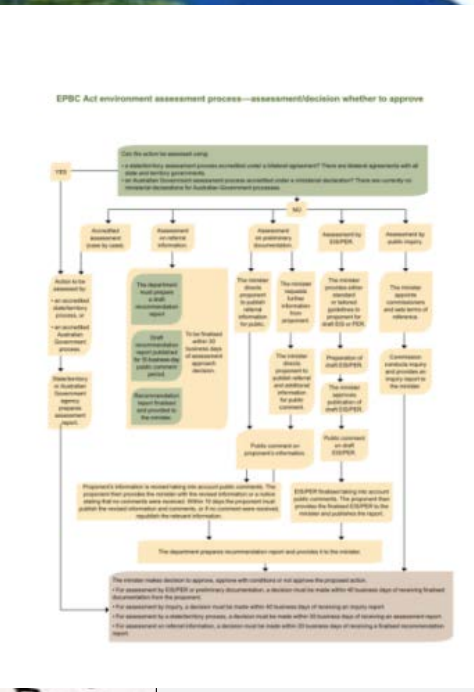
Council knows which areas are at risk and which communities are vulnerable.

Infrastructure Adaptation Panel

Identify adaptive capacity of Australian infrastructure sectors to future climate changes

Sectors include - Road, rail, telecommunications, energy, water, ports, defence, construction, mining, manufacturing, agriculture, insurance, banks & Investment, government agencies

Engagement includes:

- Survey to all infrastructure sectors throughout Australia,
- more detailed one-on-one survey interviews
- Workshops

Project aims to provide an understanding of industry adaptive capacity and how climate change adaptation can be or is being included in strategic business planning for the infrastructure sectors.