
Science, evidence, and I

The many roles of planners

Issue of our time

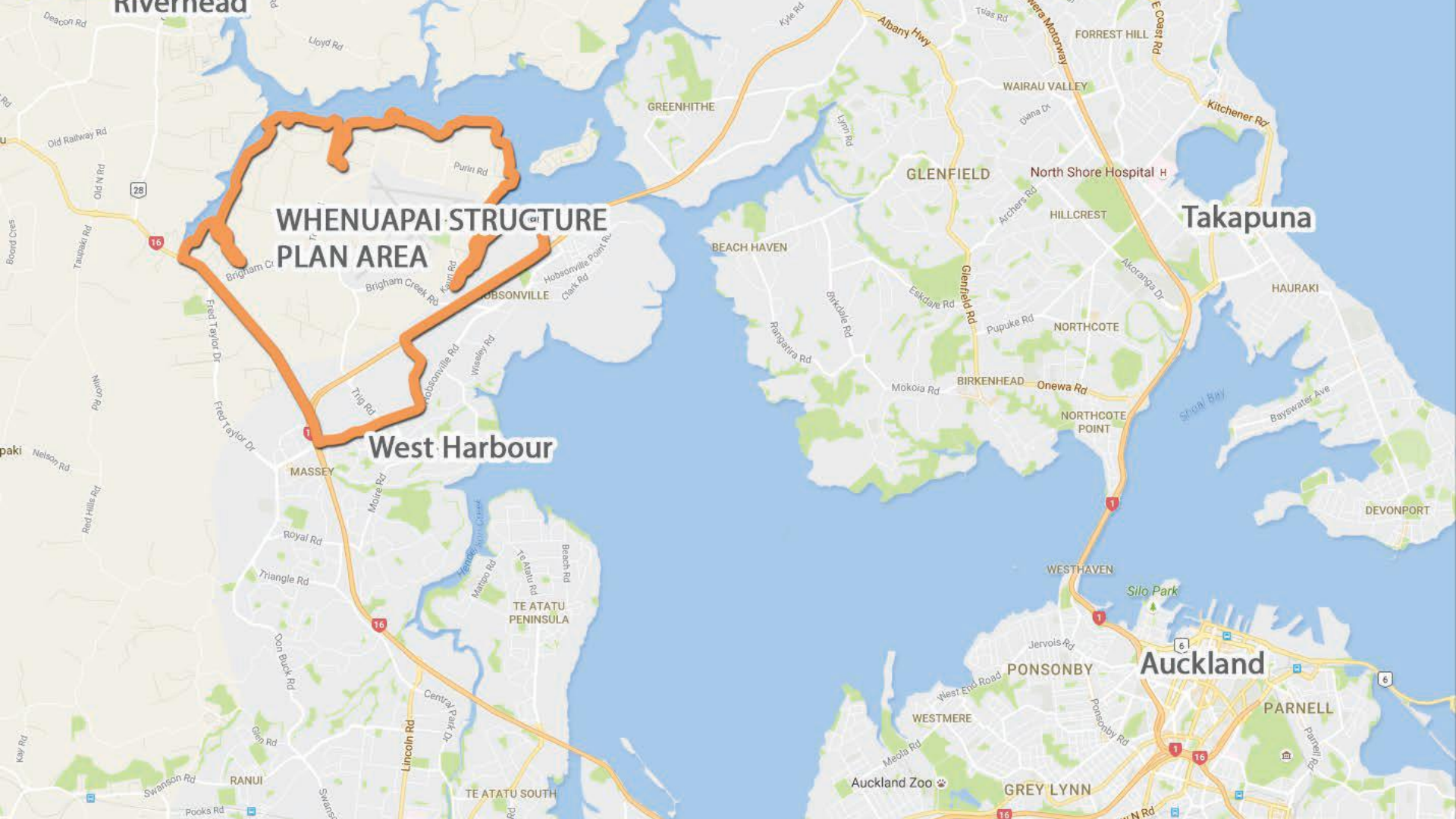
- Climate change poses the existential threat of our time
- Duty of planners to speak to the needs of future communities





Whenuapai

Between an airbase
and a [coastal] hard
place



WHENUAPAI STRUCTURE PLAN AREA

West Harbour

Takapuna

Auckland



Planners as initiators

- **Expected if unknown**

Coastal hazards emerged from preliminary geot-tech study.

- **Limited ability to provide a detailed response**

Timeframe v availability of information

- **Output: Seeding the planning narrative**

Prioritise telling the planning story

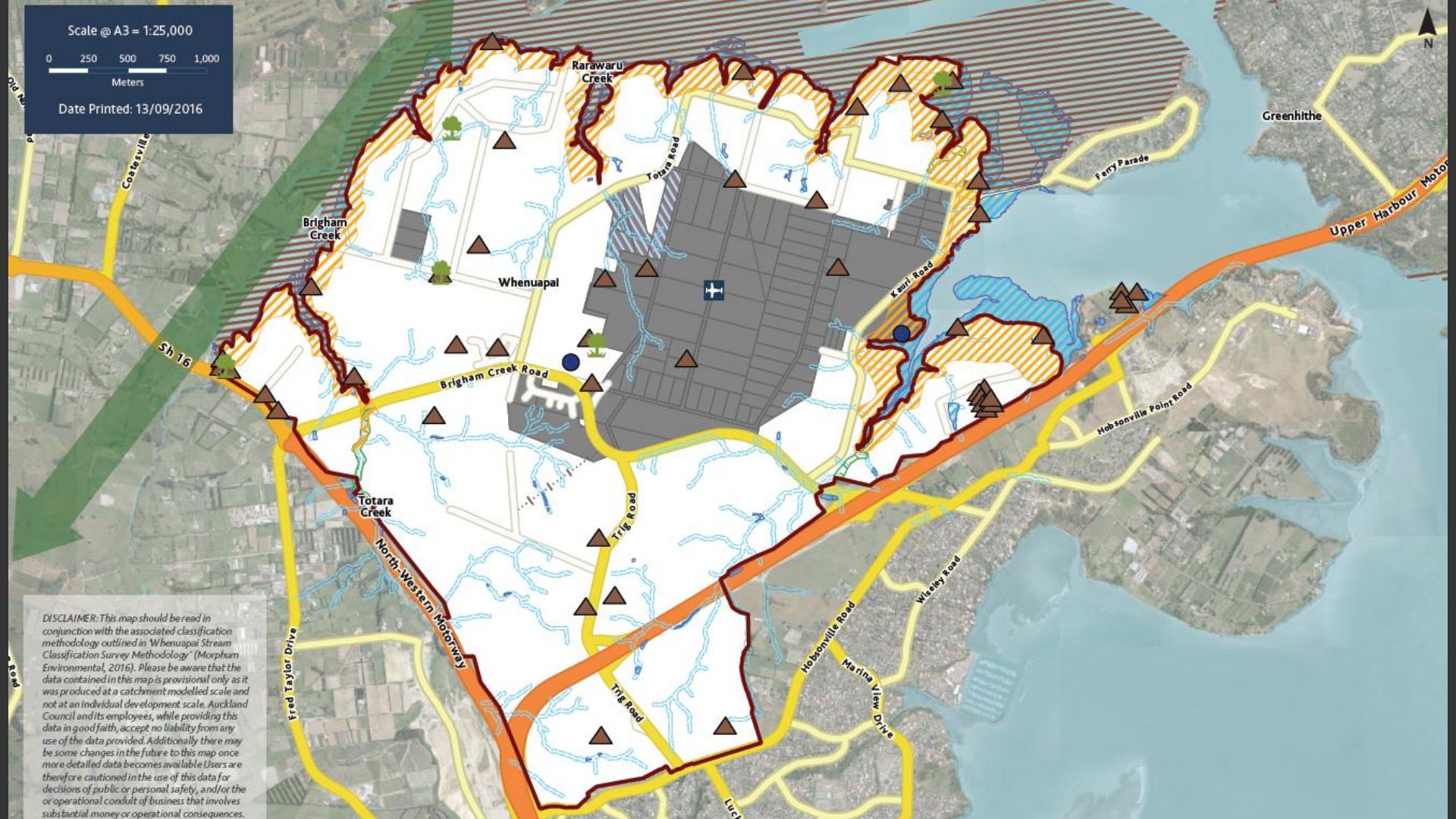
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**Planners as educators and
Storytellers**
**planning
narrative and
the public**



Scale @ A3 = 1:25,000

0 250 500 750 1,000
Meters

Date Printed: 13/09/2016



DISCLAIMER: This map should be read in conjunction with the associated classification methodology outlined in 'Whenuapai Stream Classification Survey Methodology' (Morpham Environmental, 2016). Please be aware that the data contained in this map is provisional only as it was produced at a catchment modelled scale and not at an individual development scale. Auckland Council and its employees, while providing this data in good faith, accept no liability from any use of the data provided. Additionally there may be some changes in the future to this map once more detailed data becomes available. Users are therefore cautioned in the use of this data for decisions of public or personal safety, and/or the operational conduct of business that involves substantial money or operational consequences.

Table 5-5 Future erosion hazard extending landward of the cliff toe baseline

| Cell | Scenario | 2120 | | | | 2150 | | | |
|------|----------|------|------------------|-----------------|-----|------|------------------|-----------------|-----|
| | | MIN | P _{50%} | P _{5%} | MAX | MIN | P _{50%} | P _{5%} | MAX |
| A | RCP2.6 | -26 | -34 | -40 | -45 | | | | |
| | RCP4.5 | -26 | -35 | -40 | -46 | | | | |
| | RCP8.5 | -26 | -35 | -41 | -47 | | | | |
| | RCP8.5+ | -26 | -36 | -41 | -48 | -27 | -37 | -43 | -50 |
| B | RCP2.6 | -26 | -34 | -40 | -45 | | | | |
| | RCP4.5 | -26 | -34 | -40 | -45 | | | | |
| | RCP8.5 | -26 | -35 | -40 | -46 | | | | |
| | RCP8.5+ | -26 | -35 | -41 | -46 | -27 | -36 | -42 | -49 |
| C | RCP2.6 | -12 | -19 | -25 | -32 | | | | |
| | RCP4.5 | -12 | -20 | -25 | -32 | | | | |
| | RCP8.5 | -13 | -20 | -26 | -32 | | | | |
| | RCP8.5+ | -13 | -20 | -26 | -32 | -13 | -21 | -27 | -34 |
| D | RCP2.6 | -22 | -30 | -35 | -41 | | | | |
| | RCP4.5 | -22 | -30 | -35 | -41 | | | | |
| | RCP8.5 | -23 | -30 | -35 | -42 | | | | |
| | RCP8.5+ | -23 | -31 | -36 | -42 | -22 | -31 | -37 | -43 |

-ve denoted landward of the current cliff toe

Source: Tonkin and Taylor Ltd



Translated result:

- Coastal cells, areas range from
- 2 outputs: 95% exceedance probability within 100 years and 150 years
- Input includes Representative Concentration Pathway to account for climate change effects

Planners as interpreters

Having sufficient understanding of the science to be able to form a planning response - but also knowing our limitations as not scientists.

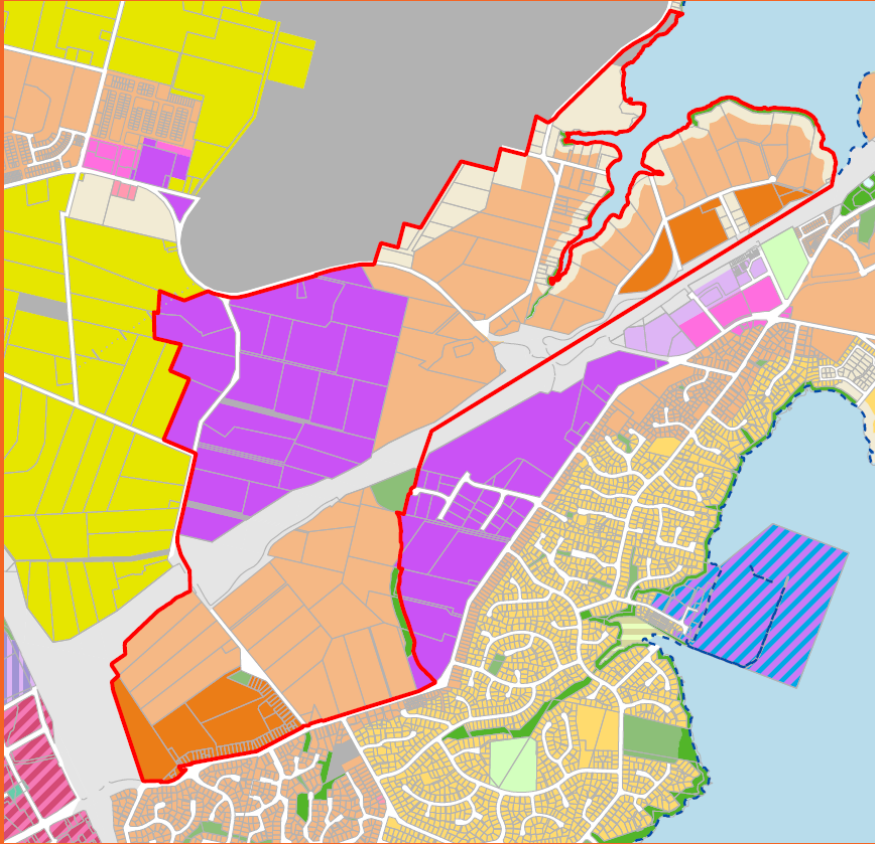
Acknowledging **RISK** vs. absolute **CERTAINTY**

Planners as plan-makers

Incorporating the science and ensuring its integrity

Policy framework and statutory duty as a filter for the science

Finding a balance between competing tensions and finding an elegant solution



Policy filters at Whenuapai

- NZCPS;
- Auckland Unitary Plan (Operative in Part);
- Regional Policy Statements;
- Appropriate application of scenarios RCP 8.5 v RCP 8.5+;
- Landuse considerations;
- Identifying controls

Planners' duty to science - the hearings process

A **holistic** view of science is particularly important in the sometimes adversarial nature of hearings - which may focus on a **single provision**.

Applicants did not challenge the **precinct provisions**; focus was on zoning.

Arguments was based on landscape and visual effects - not against the underlying probabilistic approach.

Hearing is still underway.

Personal lessons

The multiple
roles of planners

A judgement
value always sit
behind our
science and
evidence

Potential
guidance needed
on land-use
component of
natural hazards