Sydney WATER

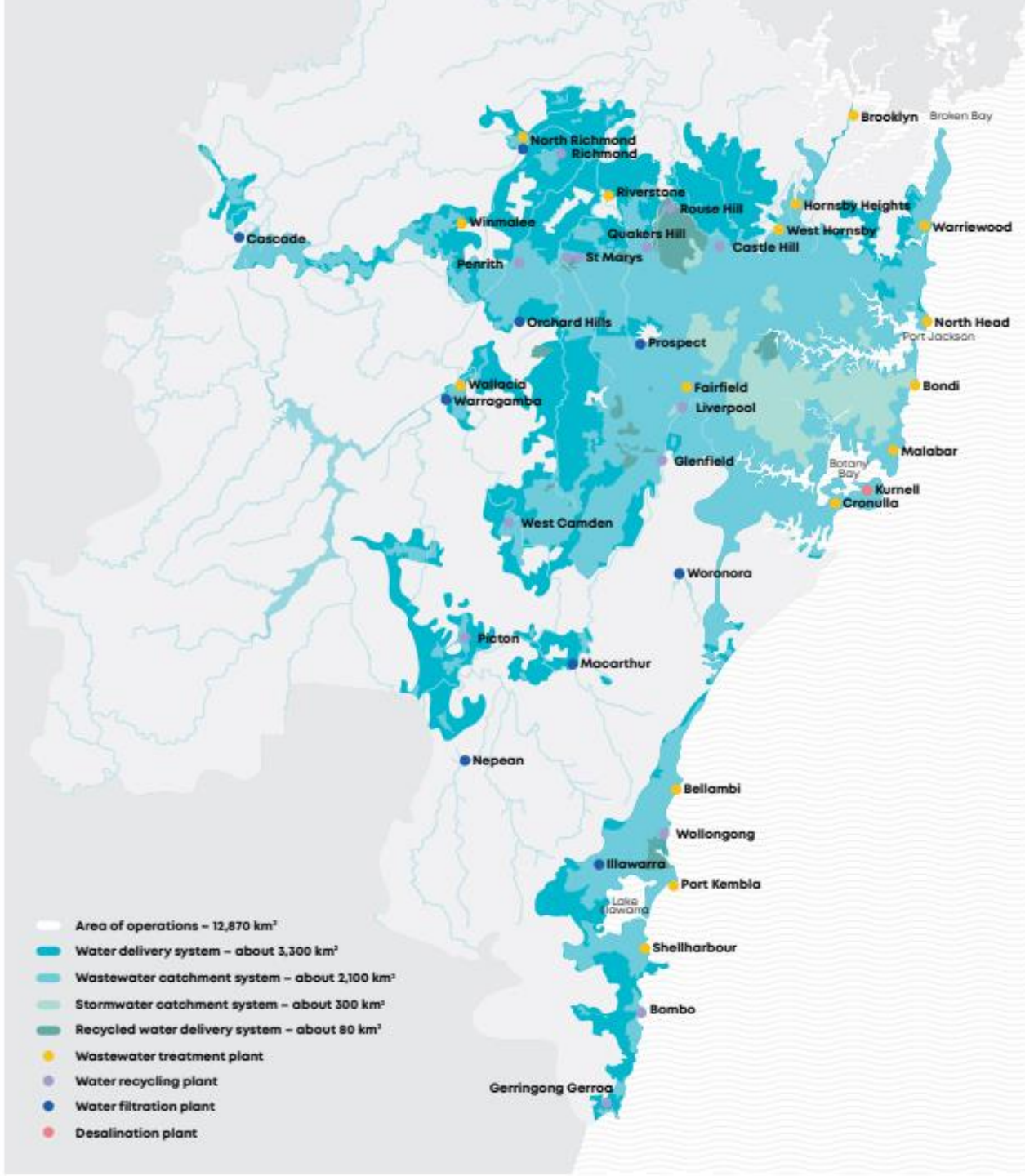
Managing our physical climate change risk

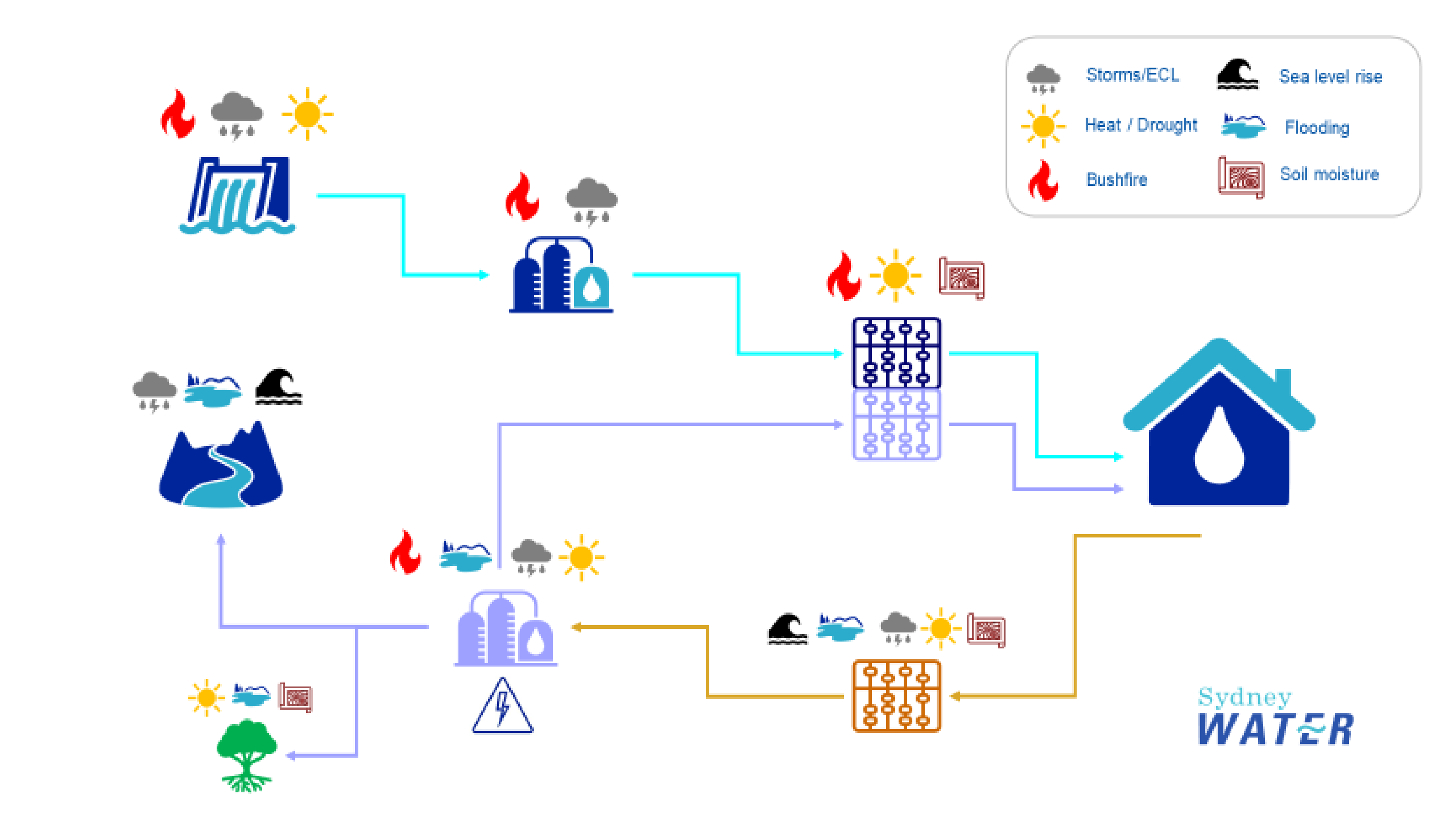
40 large facilities

50,000km of pipes

+1,000 network sites

+5,200,000 people




Storms/ECL
Sea level rise
Heat / Drought
Flooding
Bushfire
Soil moisture
Sydney
WATER

Context

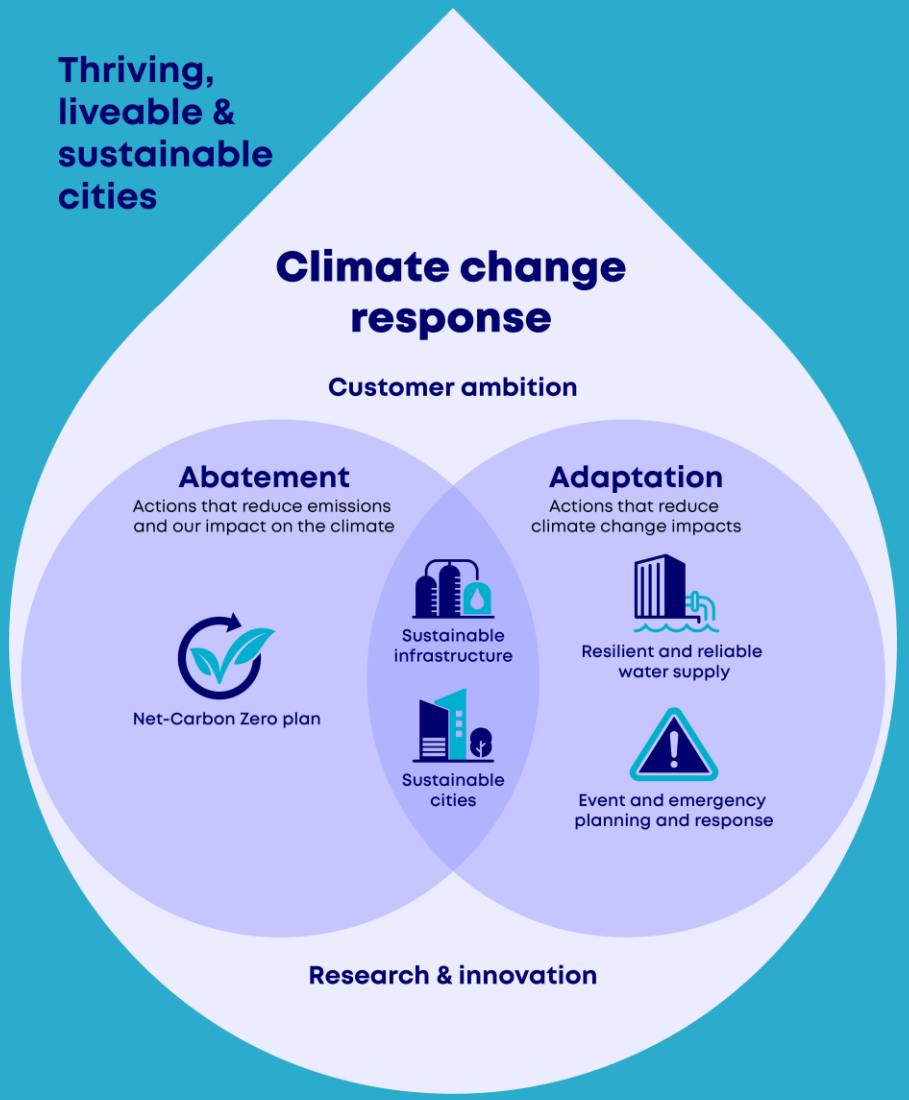
4year price and planning cycle

Separate economic and environmental regulators

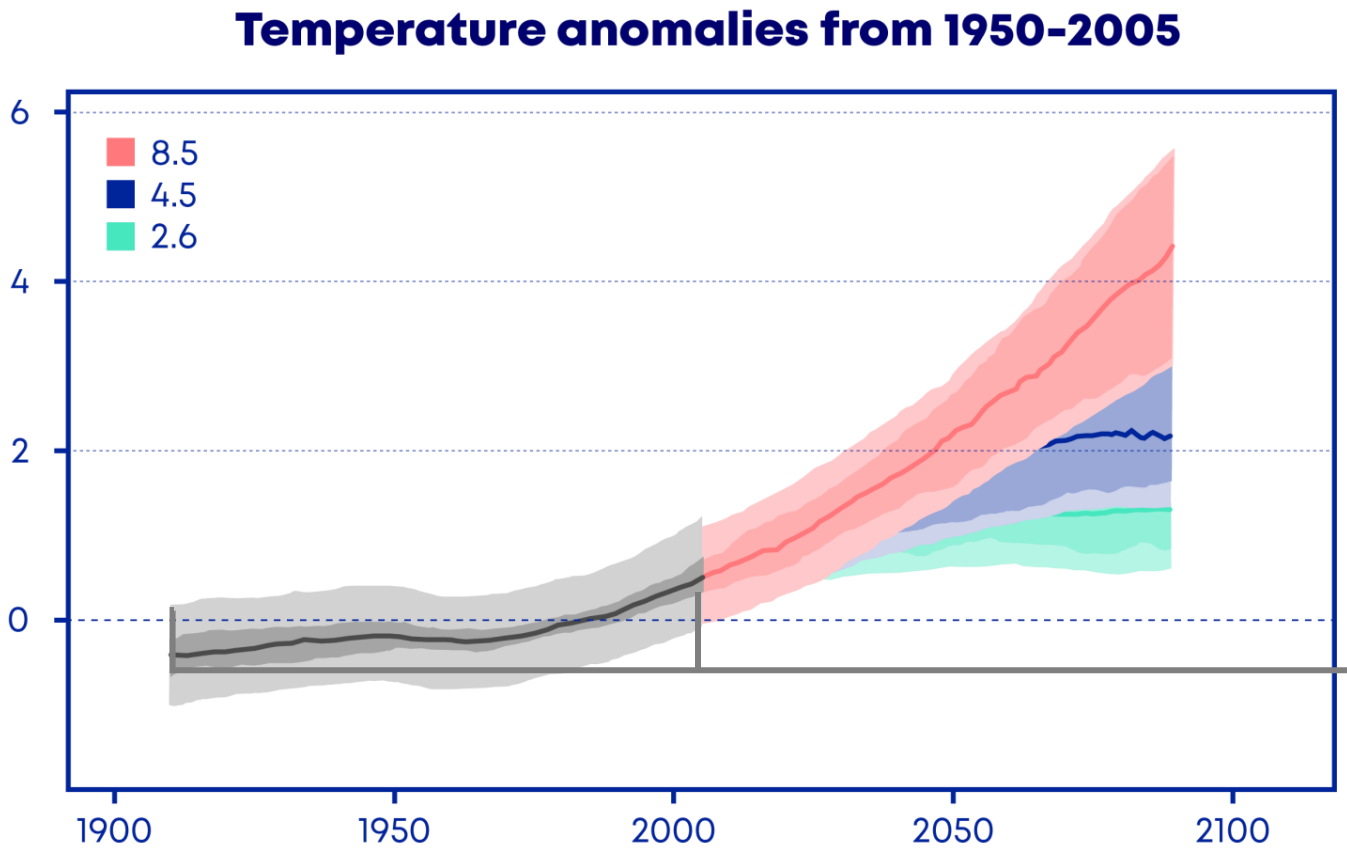
Perception “its just drought”

Greater Sydney water strategy

New NSW Government policies



What we used to do (until last month)



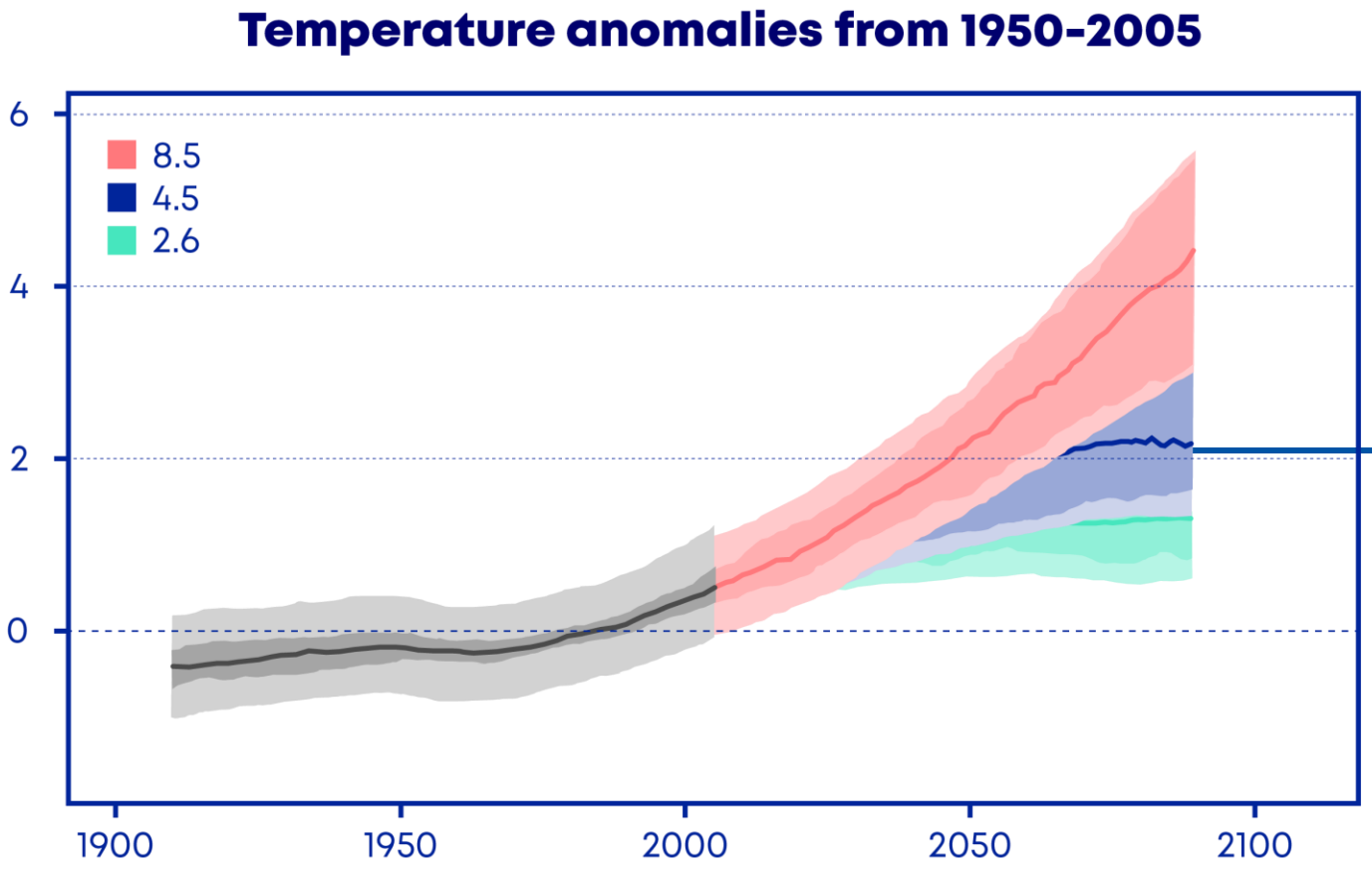
Try to argue up from there

Use historical conditions as standard

A position that allows us to make real change

Undertaking risk assessments on exposure to climate change

Embedding this position statement into core business practices

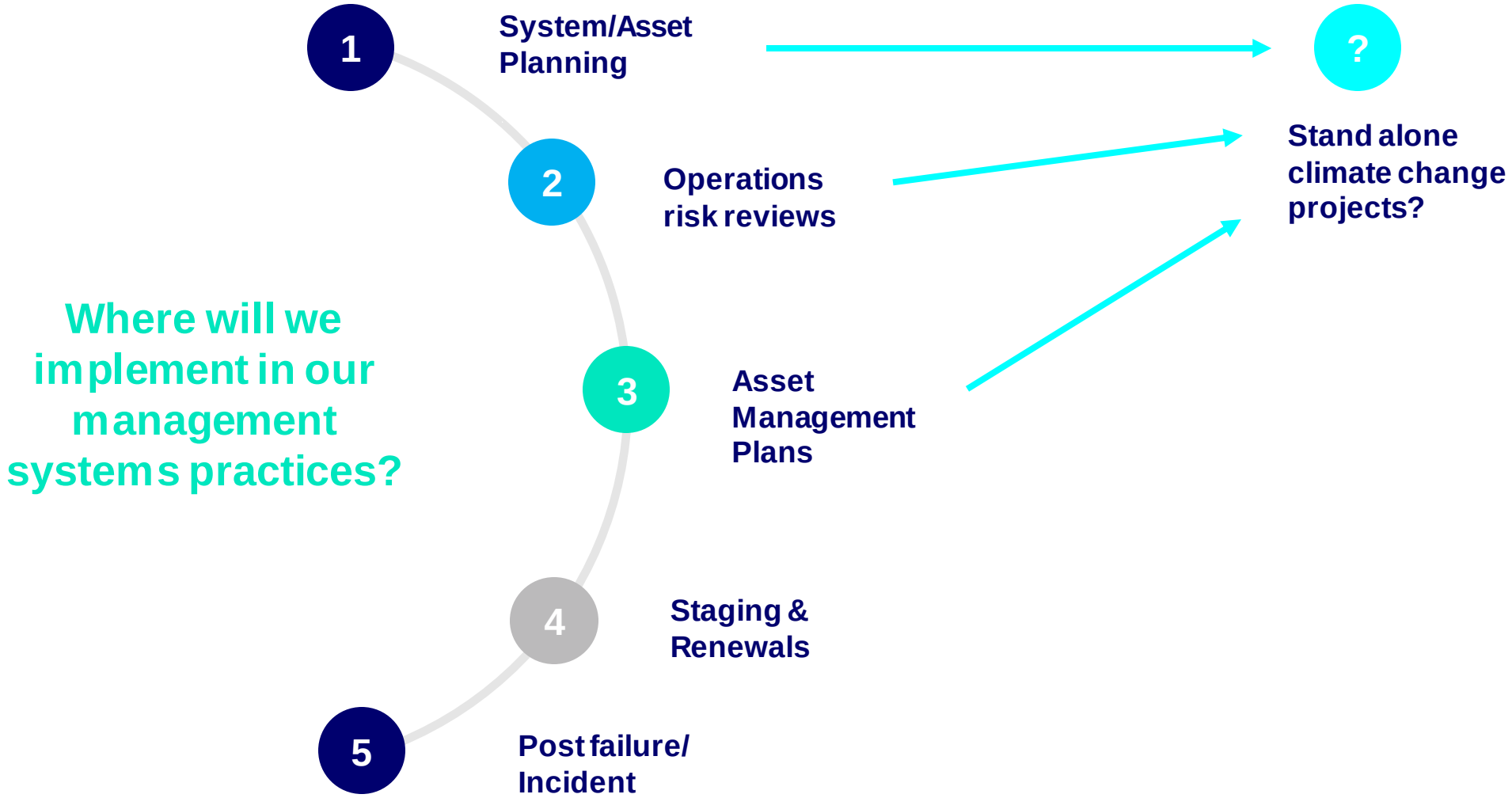


Set RCP4.5 as the standard adaptation level for implementation

And show pathways to adapt to RCP8.5

Planners can argue down, where the benefits of adaptation do not justify the expenditure

Entry points for change



Example 1 - Renewals

Sewage Pumping Station at periodic risk of flooding

- Kiosk identified as critical failure point
- Flood extents and levels reviewed

Adaptation to protect asset

- Kiosk elevated out of flood levels
- Pumps designed to be submersible (review of effectiveness)

Use of recent floods as the catalyst to ensure asset is resilient

- Resources saved by not having to react
- Recovery of asset expedited

Example 2 – System Planning

Illawarra regional master plan review included assessment of climate risk

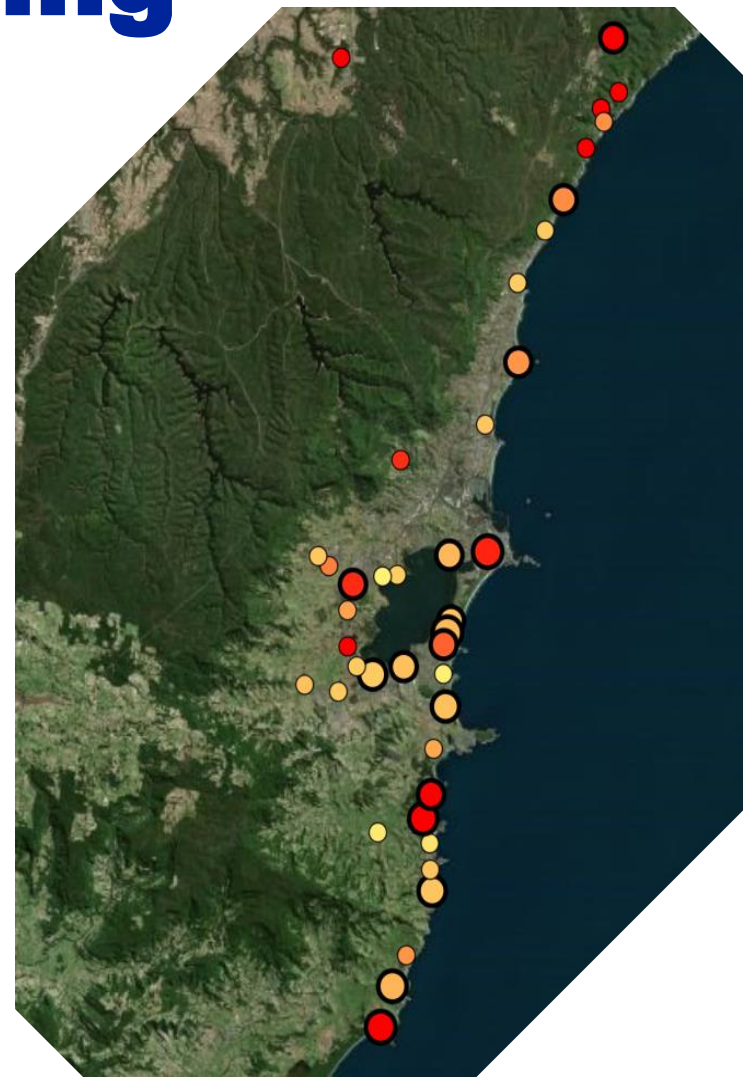
Review of system as a whole	Targeted assessment of critical infrastructure

Highlights pinch-points in the region

Systems at risk (Water / Wastewater)	Single points of failure identified

Issues identified from the start of the planning process

Climate risk kept top-of-mind in next stages of planning	Referenced in critical infrastructure risk assessments and reviews



“Physical” risk management

Likelihood of event occurring (changing into the future)

×

Consequence of event once it occurs

=

Risk Cost

Bushfire

Drought

Extreme heat

Coastal inundation

Storms

Compounding and unforeseen ?

×

Sydney WATER

Future of risk management?

Liabilities and requirements of SOCs

Risk v. Resilience approaches

Informed but still alert… bigger than normal risk management

Transition questions

Customer& regulatory support

Supply Chain

Managing market effects

Offsetting approaches


Thank you
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Sydney
WATER