

# Asset Network Modelling



5<sup>th</sup> March 2024

# Purpose

'Backlog'  
conversation



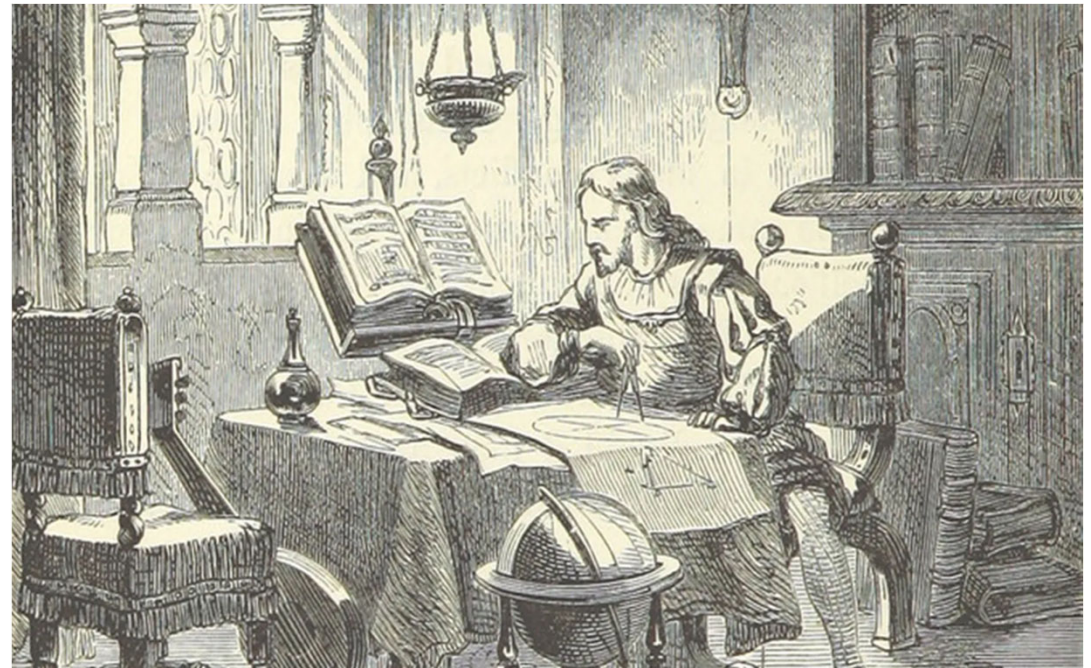
Whole-of-network  
asset management

# Context

- Revisit the backlog journey from the beginning – not linear
- Continual improvement = better outcomes

# Pre 2010

- Poor linkage between capital works, asset processes, and the LTFP
- AM was an emerging sector, spatial tools limited
- Ripe conditions to generate a backlog



St Augustine: humble origins of the modern office

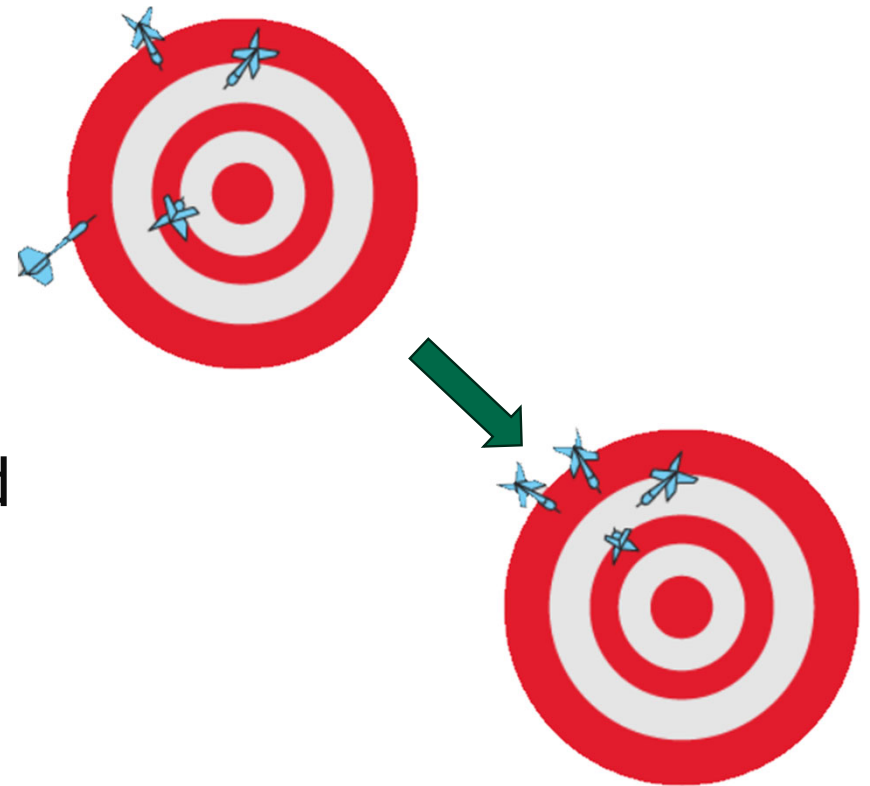
# 2012 - 2013

- Backlog quantified using age-based forecasting
- Solid starting point in the absence of good condition data
- Allowed a target to be formed and a pathway to it identified



# 2019-2021

- Reliable condition data now available
- Transition from age-based to condition-based forecasting
- Backlog completion target was refined





# 2021

- AMPs endorsed using condition-based modelling

- Audit Committee support

<https://mitcham.civicclerk.com.au/web/Player.aspx?id=250&key=-1&mod=-1&mk=-1&nov=0>

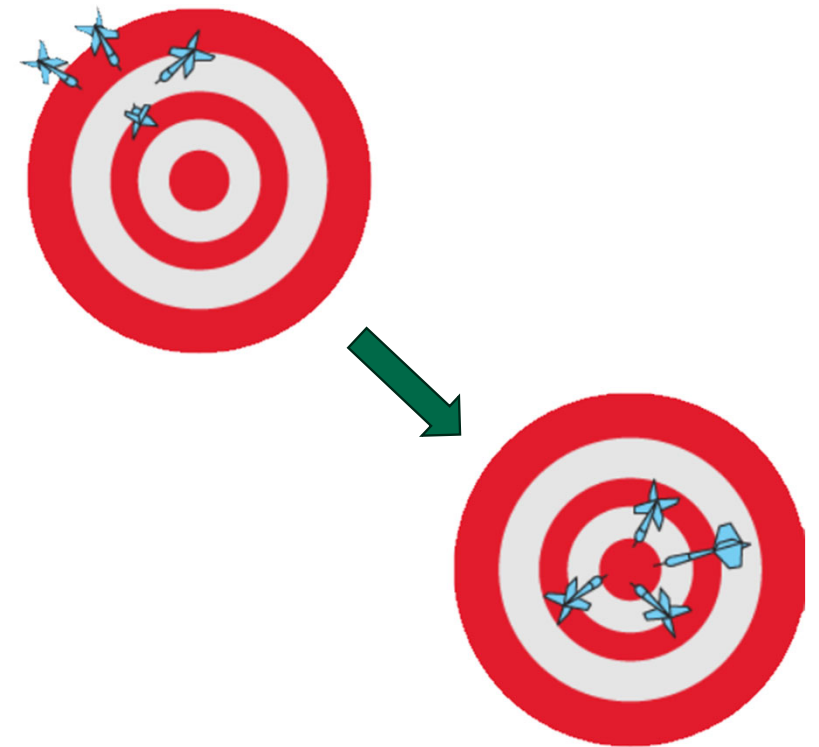
10:30 – Start of Tim Muhlhausler’s presentation to Council

- \$15M removed from 10yr LTFP budgets, based on condition data



# 2021 - 2023

- Condition data updated, refined methodology
- Technical service levels linked to Council practices
- Improved condition data accuracy
  - Spray seals





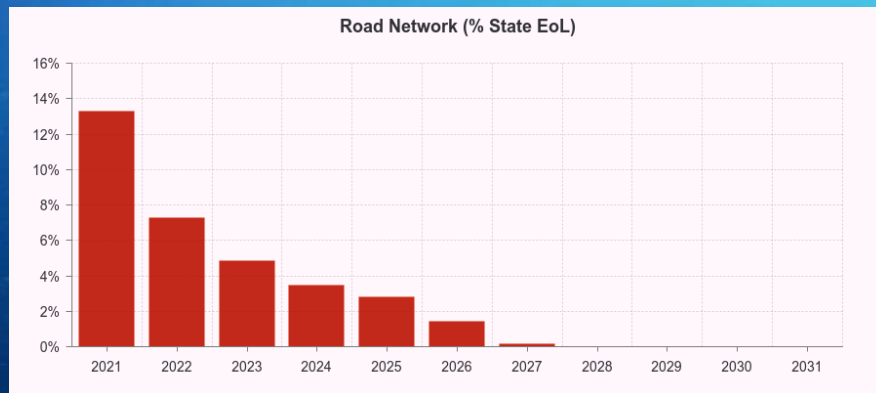
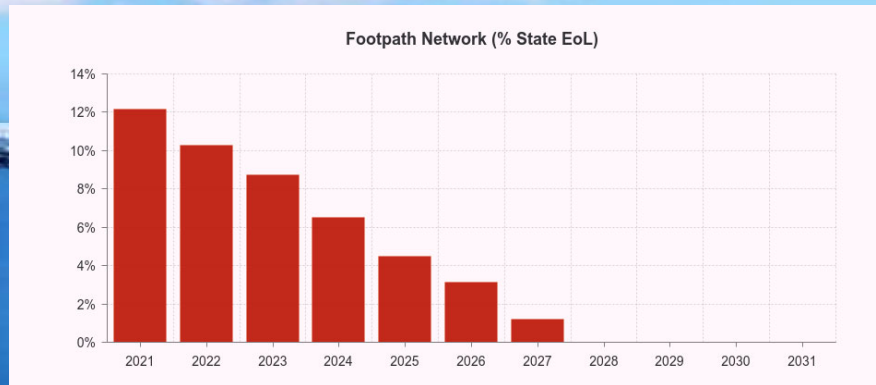
# 2023 – first pass analysis

- First pass condition data analysis, forecasts have shifted
- Aged roads impacted by external factors

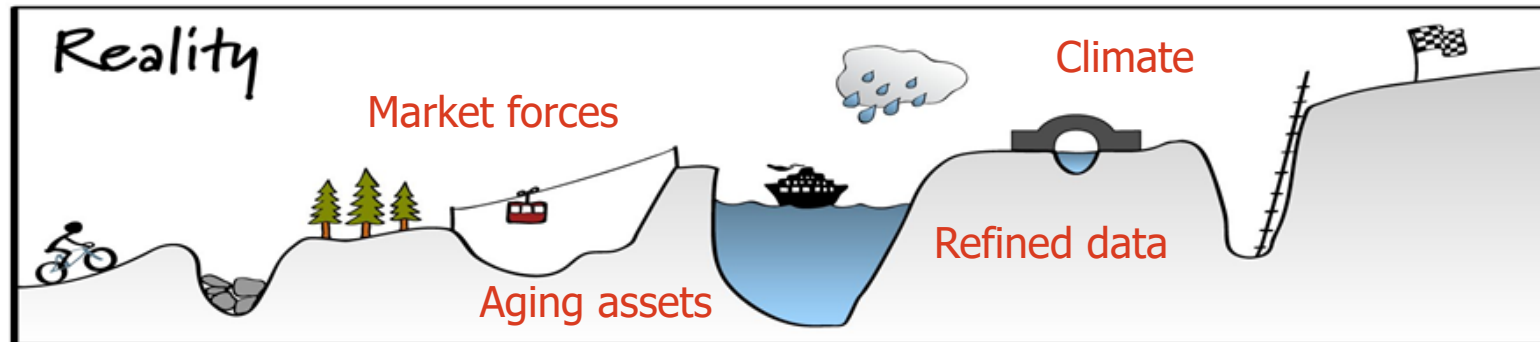


# Backlog as you know it

- Linear, simple – one variable



# Backlog as it really is



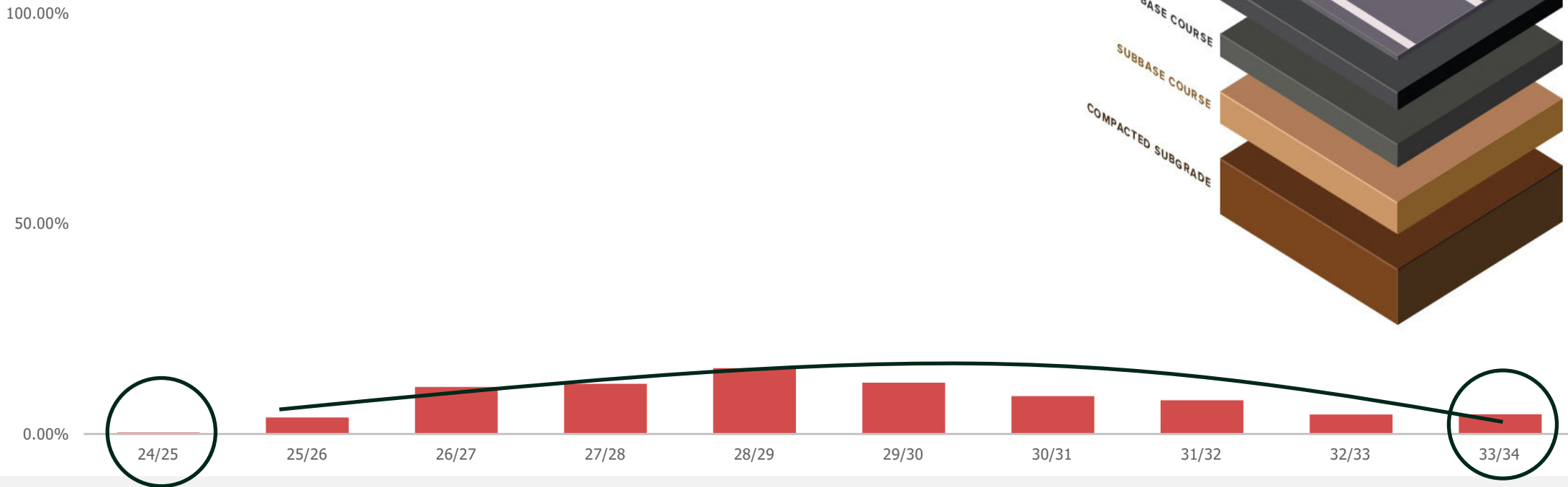
# From 'backlog' to modelling

- Key changes with revised modelling:
  - 1) The 'backlog' position as at 24/25 – improved data capture
  - 2) The 10yr condition profile – external factors impacting aged assets
  - 3) Annual fluctuations are smaller than initial backlog – time for bigger picture

# Road seals

Existing LTFP, Fully Funded (inc. backlog funding)

Road Seals



# Road pavements

Existing LTFP, Fully Funded (inc. backlog funding)

Road Pavements

100.00%

50.00%

0.00%



24/25

25/26

26/27

27/28

28/29

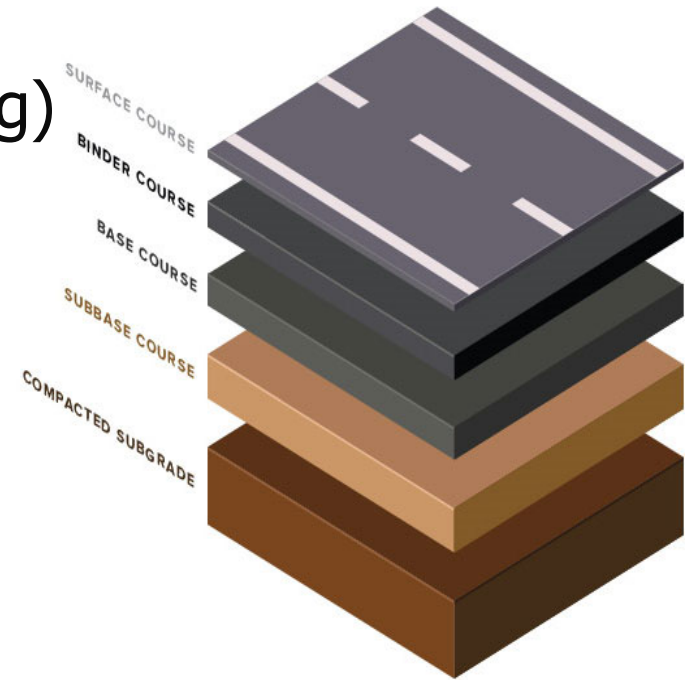
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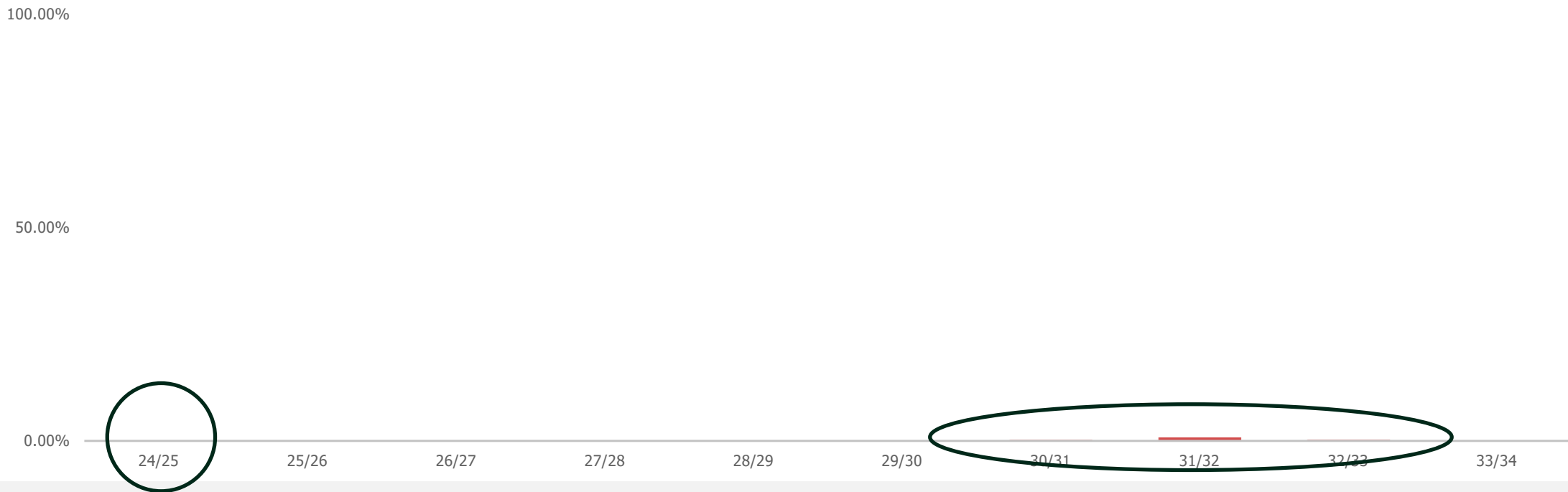




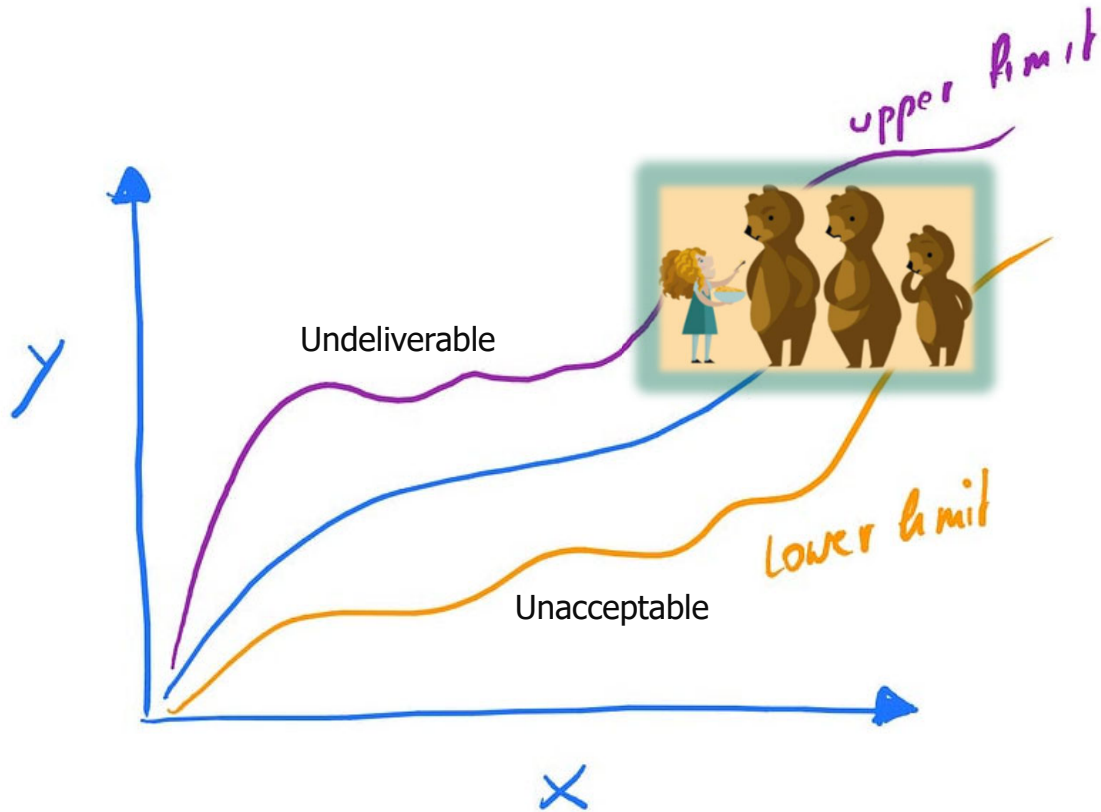
# Footpaths

## Existing LTFP, Fully Funded (inc. backlog funding)

Footpaths



# Renewal funding profiles



- Sensitivity analysis
- Reprofiting over 10yr period
- Reprofiting between asset categories

# Summary and Next Steps

- Scale of the 'Backlog' significantly different now
- No longer 'linear backlog clearance'
- 'Backlog' has reached point of 'Natural Variation'
- Still need to Fully Fund Renewals (10Yr LTFP) - as per AMPs & Service Levels
- Renewal timing (intervention) redistributed across LTFP
- Funding Options exist (0.42% 4yrs, 0.12% 10yrs...)
- Financial Options future consideration (next week)



**Thank you**

