



ADAPT  INNOVATE  FLOURISH

Innovative Asset Management for Pipe Infrastructure

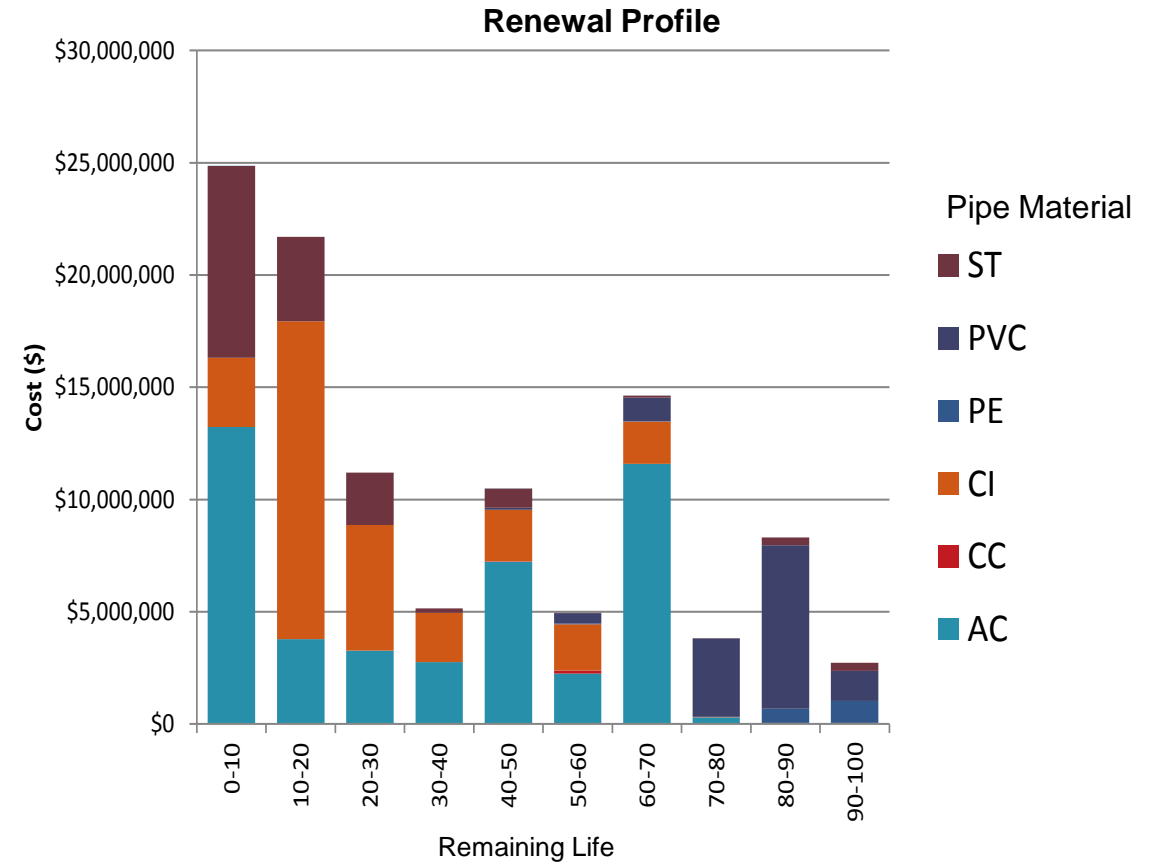
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Timaru District Council

Traditional Renewal Profile

Watermain Piped Infrastructure

- Based on a theoretical remaining life
- Criticality assessment- Desktop
- Condition assessment-Desktop
- Budget deficit \$16M over next 10 years



Available Asset Information

Asset Lives Industry Accepts

Criticality

Install Year

Maintenance Records

- Repairs
- Associated work



Sample of DN375 Cast Iron Watermain 150 years old.

Condition Assessments
(2000, 2014)

Leakage Reports

CCTV – Sewer and Stormwater

Roading Renewals

What Did The Data Say?

- Repairs and Leakage

Material	Pipe Size	Repairs	Leaks
Asbestos Cement	∅38-∅80	High	Medium
	∅100-∅250	Case by case	Case by case
	>∅300	Low	Low
Cast Concrete	<∅200	High	High
	>∅200	High	High
Cast Iron	Most Sizes	Low	Low
Polyethylene	<∅100 (installed 1970/80's)	High	High
	>∅100 or not installed in 1970/80	Very low	Very low

How to Improve the Data.

- Physical Condition Assessment

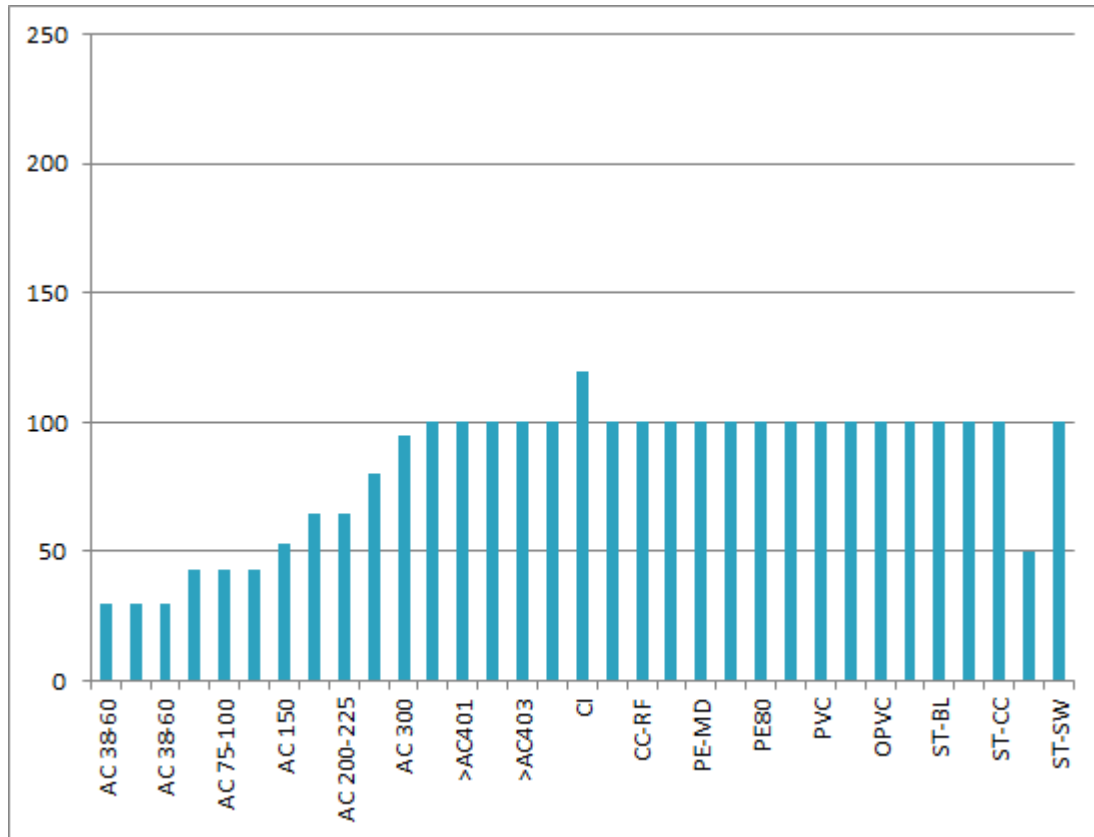
Material	Pipe Size	Condition
Asbestos Cement	Ø38-Ø80	Very Poor
	Ø100-Ø250	Varies
	>Ø300	Good
Cast Concrete	<Ø200	Joints poor
	>Ø200	Joints poor
Cast Iron	Most Sizes	Average to very good
Polyethylene	<Ø100 (installed 1970/80's)	High amount voids
	>Ø100 or not install in 1970/80	Good

What were the results

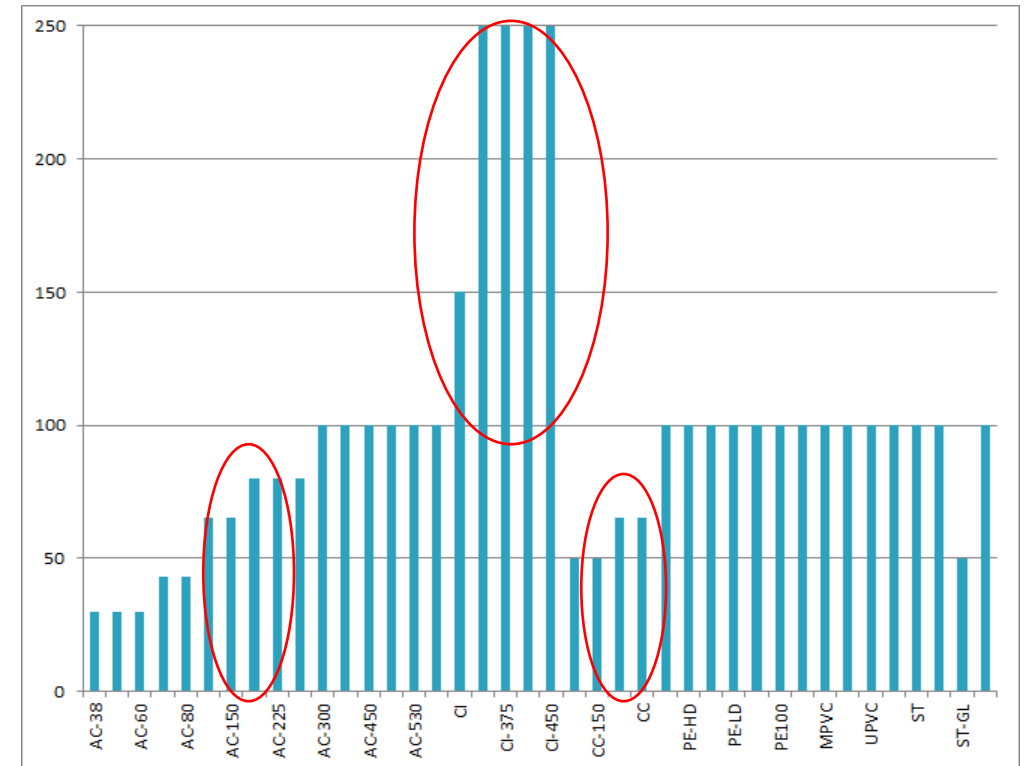
- Cast Concrete watermain's prioritised for renewal
- AC Mains < Ø80 renewed over next 10 years
- Condition sampling budget \$100,000/year
- Rural Town PE pipe replaced (6km)
- CI asset lives increased

Revised Asset Lives

- Asset Lives Before



- Our Asset Lives are Evolving

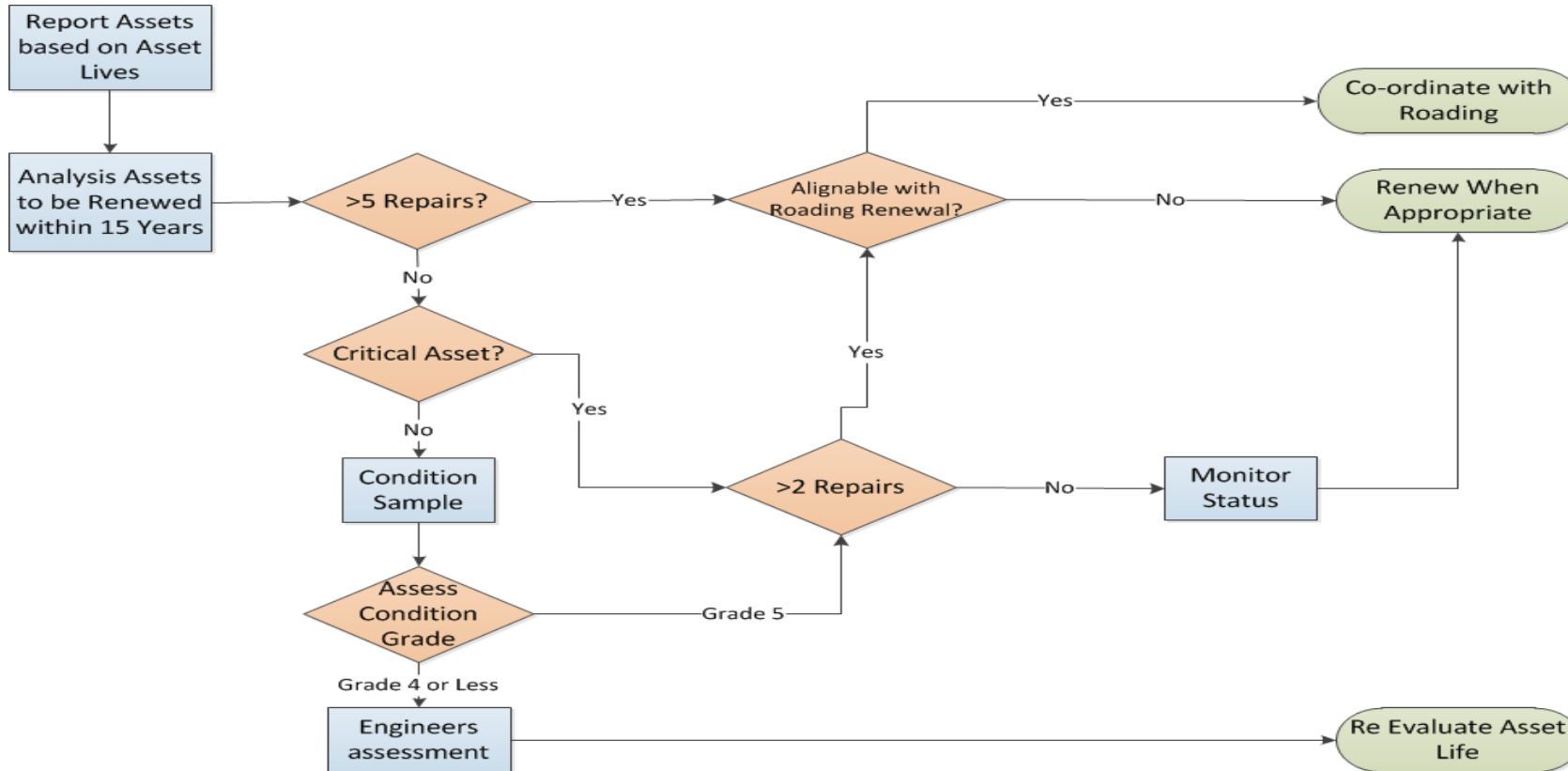


Failure based Renewal Process

- What is a failure



Timaru District Council Renewal Process



Evaluate data to see if any trends develop.

Renewal aligned with Roothing can save on reinstatement
 Hally Terrace Footpath \$23,000 saving
 Coonor Road Footpath \$33,000

Renewal Profile

- Proposed Renewal Budget was \$1.25M/Yr
- \$1.25M Approved by Council
- \$100k Condition Sampling/year

