

New Zealand



IPWEA

INSTITUTE OF PUBLIC WORKS
ENGINEERING AUSTRALASIA

ROAD INFRASTRUCTURE
MANAGEMENT FORUM

Our Carbon Equation

How far are we stretching our assets

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in association with



What we are covering today

- Analysis of surfacing lives
- Design, achieved and expected life
- Our asset management processes
- Tensioning and expectations

- Big 3 risks
 - Financial Forecasting reliability
 - Network Condition
 - Carbon goals

Analysis of surfacing lives

Network #1	Achieved Life	Design Life	FWP Expected Life	Life Achieved v's Design	FWP Expected Life v's Achieved
B/S	3.5	11.5	7	30%	209%
OGPAH	3.6	8.0	12	45%	340%
2CHIP	7.6	11.2	10	68%	129%
SMA	5.8	8.0	11	73%	194%
RACK	10.0	10.9	10	91%	102%
AC	11.4	11.7	15	98%	135%
1CHIP	10.8	10.7	13	101%	118%
OGPA	8.0	6.9	15	115%	185%
TEXT	4.7	2.1	6	228%	133%
VFILL	7.0	3.0	11	236%	163%



Analysis of surfacing lives

Network #2	Achieved Life	Design Life	FWP Expected Life	Life Achieved v's Design	FWP Expected Life v's Achieved
1CHIP	8.0	8.1	11	99%	144%
2CHIP	4.4	9.7	11	45%	262%
AC	15.0	15.4	17	97%	111%
B/S	0.0	10.6	12	94%	124%
RACK	5.4	9.5	17	56%	319%
TEXT	3.9	5.7	4	69%	102%
VFILL	5.6	5.4	13	104%	240%



Compare Networks Against each other

Treatment Type	Achieved Life	FWP Expected Life	FWP Expected Life v's Achieved
B/S	3.5	7	209%
B/S	6.8	6	88%
B/S	10.0	12	124%
Treatment Type	Achieved Life	FWP Expected Life	Expected Life v's Achieved
AC	11.4	15	135%
AC	15.0	17	111%
AC	9.4	10	107%
Treatment Type	Achieved Life	FWP Expected Life	Expected Life v's Achieved
RACK	10.0	10	102%
RACK	8.2	10	122%
RACK	5.4	17	319%

Risk – Financial Forecasting

- Setting targets can be difficult if we are not listening to information
- You need to look at your network FWP
- Check your network before setting targets
- Be realistic – it may be already unachievable
- Understand the effect of cost

Risk – Network Condition

- Setting targets can be difficult if we are not listening to information
- Understand the network condition now and in the future
- Change in contract over the next 10 years
- What carbon effect does maintenance and renewal cycle have?

Risk - Carbon Goals

- Setting targets can be difficult if we are not listening to information
- Your actual Carbon Output could be 2-3 times higher
- Any Carbon Savings sourced from treatment type selection could be lost
- Check your network before setting targets and understand stretch targets
- NZ Inc Carbon goals based on?

Actions for you :

- There are plenty of great ideas, presentations and knowledge here
- Understand your networks tension
- Get assistance to intertwine your plan and targets
- Align your organisations goals, targets with
 - contract specifications that assist in reaching the target
 - suppliers who are similarly focused on the same goals