

Lessons learned from one of New Zealand's most challenging civil engineering projects: rebuilding the earthquake damaged pipes, roads, bridges and retaining walls in the city of Christchurch 2011 - 2016.

Example of PDAT - Scoping Data

Story: Pipe Damage Assessment Tool (PDAT)

Theme: Design

A diagram which shows outputs from PDAT (with explanations).

This document has been provided as an example of a tool that might be useful for other organisations undertaking complex disaster recovery or infrastructure rebuild programmes.

For more information about this document, visit www.scirtlearninglegacy.org.nz



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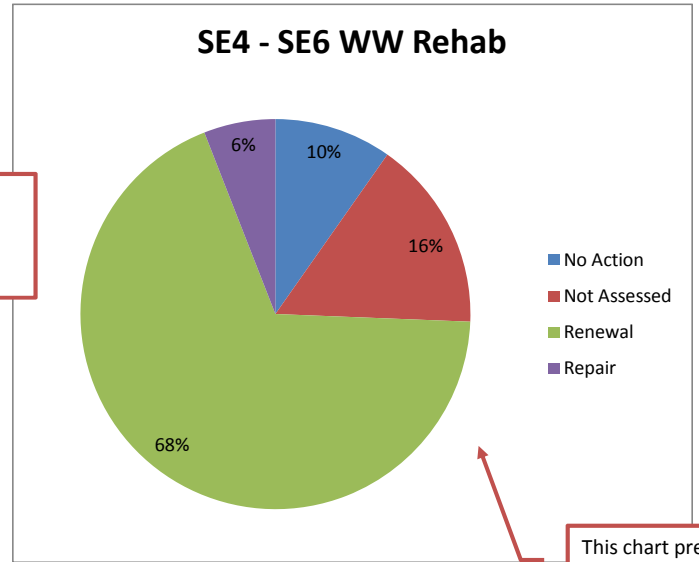
PipeID	Outcome	Source	Diameter	Length	CE1 WW Rehab
31896	Renewal	PDA	100	38.9	No Action
31897	Renewal	PDA	100	16.4	Not Assessed
31898	Renewal	PDA	100	2.8	Renewal
21824	Renewal	CCTV	150	79.6	Repair
21831	Renewal	PDA	100	20.4	
21832	Renewal	PDA	100	10.8	
21833	Renewal	PDA	100	22.9	
21835	Renewal	CCTV	100	63.7	
21834	Renewal	PDA	100	11.3	
21836	Renewal	PDA	100	17.1	
21837	Renewal	PDA	100	13.8	
21838	Renewal	PDA	100	28.9	
33824	Not Asses		100		
33825	Renewal	PDA			
33826	Renewal	PDA			
49651	Renewal	PDA			
22875	Renewal	PDA			
22876	Renewal	PDA			
22935	Not Asses				
22912	No Action	CCTV			
22913	Renewal	PDA			
22950	Repair	CCTV			
41881	Repair	CCTV	475	68.2	
23880	Not Asses		300		
24023	Renewal	PDA	150	50.5	
24080	Repair	CCTV	150	56.6	
24019	Renewal	PDA	150	71.8	Material
24024	Renewal	PDA	225	44.2	AC
24081	Renewal	PDA	150	66.1	CONC
32262	Renewal	CCTV	150	75.4	EW
24489	Renewal	PDA	150	62	CI
32293	Renewal	PDA	100	35.1	PVC
23989	Renewal	PDA	150	71.8	RCRR
23991	No Action	CCTV	160	46.8	
23974	No Action	PDA	160	80.5	
24021	Renewal	CCTV	100	9.2	Material
24493	Renewal	CCTV	150	94	AC
23978	Renewal	PDA	225	59.4	CONC
23979	No Action	PDA	160	80.1	EW
23980	Renewal	PDA	225	54.7	CI
23981	Not Asses		150		PVC
23982	Renewal	PDA	225	16.8	RCRR
24020	No Action	CCTV	150	3	
24022	Not Asses		150		
24495	Renewal	PDA	150	65	
24854	Not Asses		300		
29152	No Action	CCTV	100	9.4	
32272	Renewal	CCTV			
32297	Renewal	PDA			
32298	Not Asses				
23992	No Action	CCTV			
23993	No Action	CCTV			
23973	No Action	PDA	100	74.0	
23977	Renewal	PDA	225	60.9	
23990	Renewal	PDA	150	8.9	
23969	No Action	PDA	160	79.8	
23971	No Action	PDA	160	39.5	
23972	No Action	PDA	160	88.7	
23994	No Action	CCTV	160	25.9	
23995	No Action	CCTV	160	7	
23996	No Action	PDA	160	36.7	
23997	No Action	PDA	160	46.6	
23998	No Action	CCTV	160	17.2	
24000	No Action	CCTV	160	11.3	

51
83
358
31

Change this figure to 0 to exclude 'Not Assessed' assets from the chart

This columns lists the assessment. 'Not assessed' is assets that don't fall within the assessment scope (eg private, pressure, flush tank water supplies etc).

This columns lists the source of the assessment (CCTV, PDAT, Grade, Age)

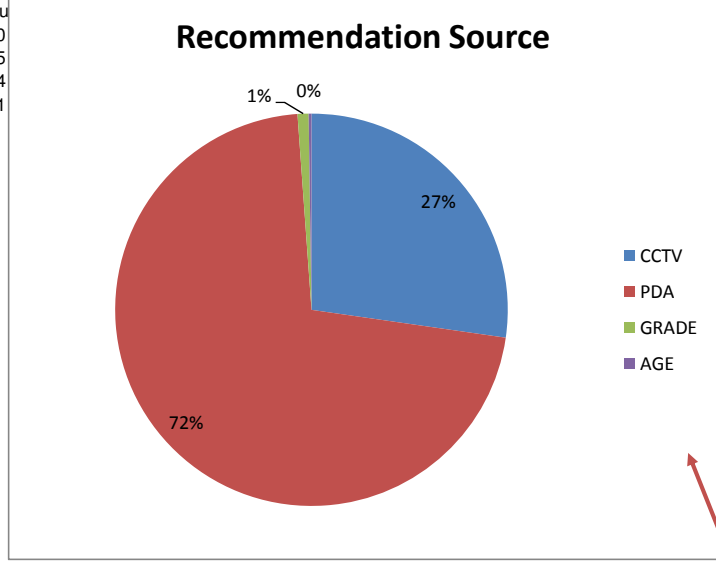


This chart presents the PDAT assessments. 'Not assessed' is assets that don't fall within the assessment scope (eg private, pressure, flush tank)

Length (m)	Length (%)	Year Laid	Renewal	Repair	Total
823	5.7%	1975	75.9%	17.2%	93.2%
555	3.9%	1930	96.5%	3.5%	100.0%
6,164	43.0%	1930	91.5%	7.1%	98.7%
126	0.9%	1973	92.6%	0.0%	92.6%
3,496	24.4%	1995	51.5%	3.3%	54.8%
3,161	22.1%	1967	58.6%	31.0%	89.6%

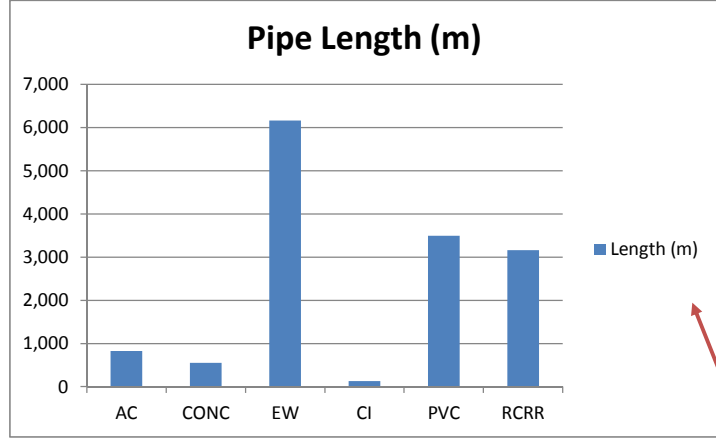
Length (m)	Length (%)	Year Laid	Renewal	Repair	No Action	Total	Renewal Length
823	5.7%	1975	75.9%	17.2%	6.8%	100.0%	625
555	3.9%	1930	96.5%	3.5%	0.0%	100.0%	536
6,164	43.0%	1930	91.5%	7.1%	1.3%	100.0%	5,643
126	0.9%	1973	92.6%	0.0%	7.4%	100.0%	117
3,496	24.4%	1995	51.5%	3.3%	45.2%	100.0%	1,801
3,161	22.1%	1967	58.6%	31.0%	10.4%	100.0%	1,851

Recommendation Source	Count
CCTV	120
PDA	315
GRADE	4
AGE	1

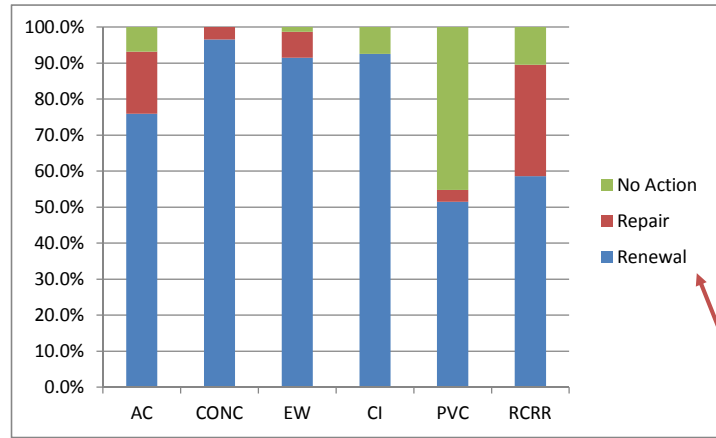


Row Labels	No Action	Not Assessed
100		0
150	372.6	0
160		0
200		0
225	128	0
300	80	0
315		0
375	23.3	0
525		0
600		0
675		0
750		0
900		0
LTRK		0
XXXD		0
Grand Total	603.9	0

This chart presents the source of the assessment



This chart presents split in pipe materials (by length)



This chart presents assessment by pipe