972	Seal	Pakenham St	William St	High St	5	2020	$14,008	18
993	Seal	Pateena Rd	00 Illawarra Rd	2.65 Arrandale	5	2020	$20,824	18
991	Seal	Pateena Rd	00 Illawarra Rd	Seal Change	5	2020	$29,660	18
992	Seal	Pateena Rd	00 Illawarra Rd	Seal Change	5	2020	$15,391	18
1016	Seal	Pitts Lane	00 B'Bourne Rd	Boundary	5	2020	$50,860	20
1033	Seal	Powranna Rd	00 Midlands Hwy	Pave Change	5	2020	$24,240	18
1047	Seal	Range Rd	Perth Mill Road	End of Circuit	5	2020	$25,010	18
1052	Seal	Relbia Rd For. Lower White Hills	Change	Boundary	5	2020	$30,784	18
1051	Seal	Relbia Rd For. Lower White Hills	Change	Seal Change	5	2020	$15,732	18
1060	Seal	Ross Sth Access Rd	Midland Hwy	Seal Change	5	2020	$2,200	18
1084	Seal	Royal George	00 St Pauls SBL	Seal Change	5	2020	$51,852	18
1085	Seal	Royal George	00 St Pauls SBL	Seal Change	5	2020	$20,384	18
1090	Seal	Royal George	00 St Pauls SBL	Seal Change	5	2020	$28,728	18
1111	Seal	Saundridge Rd	5.14 Eastfield	Seal Change	5	2020	$25,606	18
1108	Seal	Saundridge Rd	Change	Seal Change	5	2020	$63,110	18
1110	Seal	Saundridge Rd	Seal Change	5.14 Eastfield	5	2020	$15,496	18
1115	Seal	Saundridge Rd	Seal Change	Blackwood Ck	5	2020	$16,060	18
1112	Seal	Saundridge Rd	Seal Change	Seal Change	5	2020	$38,535	18
1145	Seal	Smith St	Hay St	Gate	5	2020	$4,315	18
1150	Seal	Spencers Lane	Cressy Rd	Gatenby St	5	2020	$4,717	18
1192	Seal	Summit Drive	00 Devon Hills Rd	End	5	2020	$38,054	18
1208	Seal	The Stock Route	Saundridge St	Seal Change	5	2020	$1,642	18
1211	Seal	Tooms Lake Rd	0.36 Railway X-ing	Seal Change	5	2020	$32,176	18
1238	Seal	Tooms Lake Rd	17.39 Honeysuckle	Bridge	5	2020	$2,294	18
1212	Seal	Tooms Lake Rd	Seal Change	Seal Change	5	2020	$4,100	18
1219	Seal	Tooms Lake Rd	Seal Change	Seal Change	5	2020	$19,601	18
1254	Seal	Top Rd	00 Blackwood Ck	1.23 Smiths	5	2020	$1,428	18
1270	Seal	Truelands Rd	Seal Change	End of Seal	5	2020	$6,426	18
1266	Seal	Truelands Rd	Seal Change	Seal Change	5	2020	$30,873	18
1289	Seal	Tunbridge Tier Rd	00 Midlands Hwy	Seal Change	5	2020	$18,900	18
1288	Seal	Tunbridge Tier Rd	00 Midlands Hwy	Seal Change	5	2020	$7,308	18
1319	Seal	Valleyfield Rd	00 Barton Rd	Seal Change	5	2020	$39,000	18
1320	Seal	Valleyfield Rd	00 Barton Rd	Seal Change	5	2020	$15,900	18
1316	Seal	Valleyfield Rd	00 Barton Rd	Seal Change	5	2020	$61,450	20
1321	Seal	Valleyfield Rd	00 Barton Rd	Seal Change	5	2020	$18,000	18
1382	Seal	White Hills Rd	Relbia	Seal Change	5	2020	$37,059	20
1400	Seal	Wilmores La	00 Cressy Main Rd	Loading Ramp	5	2020	$32,810	18

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1416	Seal	Woolmers La	00 Midlands Hwy	Pave Change	5	2020	$55,245	20
1417	Seal	Woolmers La	00 Midlands Hwy	Pave Change	5	2020	$11,556	12
6	Unsealed Pavement	Alma St	Cracroft St	Talbot	5	2020	$700	20
175	Unsealed Pavement	Brickendon St	00 Woolmers Lane	End	5	2020	$3,300	20
193	Unsealed Pavement	Bridge St S/R	Change	end	5	2020	$4,230	20
269	Unsealed Pavement	Church Lane	Nile Rd	End	5	2020	$2,370	20
640	Unsealed Pavement	King St Camp/T	End Seal	End	5	2020	$6,570	20
816	Unsealed Pavement	Maitland La	00 Green Rises	Bridge	5	2020	$35,700	20
1146	Unsealed Pavement	Smiths Rd	Top Rd	Ends at Gate	5	2020	$7,250	20
1207	Unsealed Pavement	The Boulevards Pt 1	End Seal	Gate	5	2020	$1,519	20
						Subtotal	$2,501,608	
495	Pavement	Glenesk Rd	00 Nile Rd	Seal Change	6	2021	$174,600	70
849	Pavement	Marlborough St Longford	00 William St	Chatsworth	6	2021	$140,400	80
1322	Pavement	Valleyfield Rd	00 Barton Rd	Seal Change	6	2021	$285,750	70
38	Seal	Arthur St Perth	Clarence St	Seal Change	6	2021	$2,682	16
64	Seal	Auburn Rd	00 Midlands Hwy	Seal Change	6	2021	$30,232	18
67	Seal	Auburn Rd	00 Midlands Hwy	Seal Change	6	2021	$35,556	18
68	Seal	Auburn Rd	00 Midlands Hwy	Seal Change	6	2021	$11,118	18
88	Seal	Banksia Gve	Phillip St	End of Bowl	6	2021	$3,410	18
118	Seal	Bellevue	00 Midlands Hwy	Seal Change	6	2021	$14,432	18
132	Seal	Bishopsbourne Rd	00 Illawarra	Seal Change	6	2021	$26,564	18
149	Seal	Blackwood Creek Rd	00 Saundridge	Seal Change	6	2021	$23,980	18
176	Seal	Bridge St Camp/T	Esplanade	King	6	2021	$6,873	18
214	Seal	Bulwer St	Seal Change	Laycock	6	2021	$7,029	18
243	Seal	Catharine St	Malcombe St	Hobhouse St	6	2021	$8,989	18
242	Seal	Catherine St	Malcombe St	Malcombe St	6	2021	$571	18
250	Seal	Cemetery Rd	Drummond St	End of Bowl	6	2021	$3,485	16
1562	Seal	Chimah Rd	Seal Change	Powarànna	6	2021	$7,260	18
280	Seal	Church St Ross	Dividod Rd	End Car Park	6	2021	$6,266	18
289	Seal	Clarence St	Frederick St	Elizabeth St	6	2021	$12,318	18
287	Seal	Clarence St	M'Lands H'Way	Talisker St	6	2021	$9,196	18
327	Seal	Cracroft St	Horne	Wellington	6	2021	$7,996	18
331	Seal	Cromwell St	Edward St	Seal Change	6	2021	$3,938	16
359	Seal	Delmont	00 Maquarie River Rd	Seal Change	6	2021	$10,605	18
378	Seal	Drummond Crs.	Drummond St(E)	Charles	6	2021	$11,564	18
379	Seal	Drummond St	Drummond	End K&C	6	2021	$2,240	20

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380	Seal	Drummond St	Drummond Cr	End K&C	6	2021	$1,945	20
376	Seal	Drummond St	Midland Hwy	Width Change	6	2021	$2,793	18
377	Seal	Drummond St	Width Change	Scone	6	2021	$1,756	18
401	Seal	Elizabeth St pt.2	Midland Hwy	Fairtlough	6	2021	$9,364	18
454	Seal	Franklin St	Bedford	End Seal	6	2021	$1,469	18
456	Seal	Frederick St	Charles St	Midlands Hwy	6	2021	$18,882	18
455	Seal	Frederick St	Norfolk St	Charles St	6	2021	$12,400	18
458	Seal	Frederick St	Scone St	Clarence St	6	2021	$11,771	18
485	Seal	Glen Cornell Rd	Change	End of Seal	6	2021	$17,569	18
518	Seal	Green Rises	Liffey Rd	1.21 Elphinstone	6	2021	$25,472	18
532	Seal	Hastewood St	00 Brumby	Marlborough	6	2021	$25,990	18
533	Seal	Hastewood St	00 Murphys Ck	Cressy	6	2021	$26,904	18
540	Seal	Herberts Rd	Hobhouse St	Bulwer	6	2021	$5,062	18
559	Seal	High St Longford	Burghley St	Seal Change	6	2021	$1,376	18
558	Seal	High St Longford	Catherine St	Burghley St	6	2021	$6,821	18
556	Seal	High St Longford	Packenham St	Catherine St	6	2021	$7,360	18
563	Seal	High St Ross	Bond St	Rail X	6	2021	$1,465	18
569	Seal	Hobart Rd	Seal Change	1.70 Marchington	6	2021	$63,441	18
571	Seal	Hobart Rd	Seal Change	Bridge	6	2021	$29,106	18
568	Seal	Hobart Rd	Seal Change	Seal Change	6	2021	$10,374	18
574	Seal	Hobhouse St	End Path	Laycock St	6	2021	$2,176	18
573	Seal	Hobhouse St	Wellington St	End Path	6	2021	$5,568	18
604	Seal	Hortle Cre	Packenham St	End of Bowl	6	2021	$8,604	30
609	Seal	Howick St	Width Change	Gay St	6	2021	$2,460	18
1454	Seal	Isis Rd	Start of Seal	End of Seal	6	2021	$3,192	18
635	Seal	King St Camp/T	East End(Bowl)	High	6	2021	$7,690	18
713	Seal	Little M'Gve St	Main St	End	6	2021	$6,622	18
752	Seal	Macquarie River Rd	Seal Change	Seal Change	6	2021	$25,152	18
787	Seal	Macquarie St Cressy	Seal Change	End of Seal	6	2021	$8,165	18
828	Seal	Malcombe St	Burghley	Gate	6	2021	$3,608	18
824	Seal	Malcombe St	Marlborough St	Pakenham	6	2021	$7,576	18
860	Seal	Merrywood	00 Royal George Rd	End Bridge	6	2021	$5,245	18
872	Seal	Mona Vale Rd	00 Midlands Hwy	Concrete Fence Post	6	2021	$10,218	18
870	Seal	Mona Vale Rd	00 Midlands Hwy	Culvert	6	2021	$11,118	18
873	Seal	Mona Vale Rd	00 Midlands Hwy	Fence Line	6	2021	$15,496	18
876	Seal	Mona Vale Rd	00 Midlands Hwy	Prop Ent LHS	6	2021	$18,156	18
880	Seal	Montague St	Bridge St Sth	Midlands Hwy	6	2021	$8,136	18

1587	Seal	Mulgrave St	Seal Change	End of Bowl	6	2021	$2,345	20
928	Seal	Nile Rd	00 High St Evendale	Seal Change	6	2021	$28,560	18
929	Seal	Nile Rd	00 High St Evendale	Seal Change	6	2021	$46,553	18
1572	Seal	Nile Rd	Start of Seal	End of Seal	6	2021	$5,850	18
988	Seal	Park St Ross	Badajos St	New St	6	2021	$7,540	18
990	Seal	Pateena Rd	00 Illawarra Rd	Seal Change	6	2021	$3,552	18
1032	Seal	Powranna Rd	00 Midlands Hwy	Seal Change	6	2021	$18,054	18
1036	Seal	Pultney St	Marlborough St	Packenham St	6	2021	$7,866	18
1043	Seal	Queen St	Seal Change	Bridge St	6	2021	$9,652	18
1048	Seal	Raeburn Rd	Hobart Road	End	6	2021	$14,880	18
1091	Seal	Royal George	00 St Pauls SBL	12.97 Snow Hill Rd	6	2021	$41,160	18
1096	Seal	Royal George	00 St Pauls SBL	Lewis Hill Rd	6	2021	$32,928	18
1082	Seal	Royal George	00 St Pauls SBL	Seal Change	6	2021	$28,688	18
1093	Seal	Royal George	00 St Pauls SBL	Seal Change	6	2021	$21,273	18
1092	Seal	Royal George	00 St Pauls SBL	Seal Change	6	2021	$51,979	18
1121	Seal	Saundridge St	Cressy Rd	Charles St	6	2021	$8,961	18
1124	Seal	Saundridge St East	Main St	End K&C	6	2021	$4,614	18
1129	Seal	Scone St Perth	Frederick St	Midlands Hwy	6	2021	$2,563	18
1130	Seal	Scone St Perth	Midlands Hwy	Drummond St	6	2021	$10,778	18
1308	Seal	Secombe St Pt 2	Mulgrave St	Minerva Dr	6	2021	$16,248	20
1143	Seal	Smith St	Goderich St	Mowick St	6	2021	$4,915	18
1144	Seal	Smith St	Hewick St	Hay St	6	2021	$4,166	18
1140	Seal	Smith St	Wellington St	George St	6	2021	$17,351	18
1155	Seal	Sprent St	Change	Lake Leake H'Wy	6	2021	$5,675	18
1168	Seal	Stocker St	Lewis St	Bulwer	6	2021	$8,826	20
1175	Seal	Story's Creek Rd	00 Esk Hwy	End of Seal	6	2021	$3,150	18
1181	Seal	Story's Creek Rd	Drain	Drain	6	2021	$81,761	18
1183	Seal	Story's Creek Rd	Clops Ck 12.56 Seal Change	Road UK	6	2021	$52,352	18
1236	Seal	Tooms Lake Rd	16.57 Cattle Grid	Seal Change	6	2021	$5,533	16
1210	Seal	Tooms Lake Rd	Bond St	0.36 Railway X-ing	6	2021	$44,216	20
1224	Seal	Tooms Lake Rd	Bridge	Seal Change	6	2021	$10,900	18
1226	Seal	Tooms Lake Rd	Seal Change	Seal Change	6	2021	$6,800	18
1215	Seal	Tooms Lake Rd	Seal Change	Seal Change	6	2021	$5,202	18
1269	Seal	Truclands Rd	Seal Change	Seal Change	6	2021	$18,023	18
1292	Seal	Tunbridge Tier Rd	00 Midlands Hwy	5.02 Melrose	6	2021	$22,932	18
1291	Seal	Tunbridge Tier Rd	00 Midlands Hwy	Seal Change	6	2021	$11,172	18
1322	Seal	Valleyfield Rd	00 Barton Rd	Seal Change	6	2021	$38,100	18

1376	Seal	Weston St	00 Brumby St	Cressy Rd	6	2021	$7,600	18
122	Unsealed Pavement	Bennetts	Liffey Rd	End	6	2021	$1,688	25
208	Unsealed Pavement	Bryants Lane	00 Deddington Rd	Stockyards RHS	6	2021	$36,113	10
222	Unsealed Pavement	Burghley St	Wilmores	Start Seal	6	2021	$7,650	25
317	Unsealed Pavement	Cotton St(East)	00 Cressy Main Rd	Marlborough	6	2021	$14,525	25
416	Unsealed Pavement	English Town Rd	00 Deddington Road	Start of Seal	6	2021	$7,788	25
447	Unsealed Pavement	Forest Hall	00 Midlands Hwy	Locked Gate	6	2021	$35,875	25
526	Unsealed Pavement	Grubbers Hill	Armstrongs Lane	Continues through a Gate	6	2021	$3,948	25
591	Unsealed Pavement	Honeysuckle Rd	00 Tooms Lake Rd	9.25 Cattle Grid	6	2021	$26,250	25
592	Unsealed Pavement	Honeysuckle Rd	00 Tooms Lake Rd	Cattle Grid	6	2021	$37,975	25
593	Unsealed Pavement	Honeysuckle Rd	00 Tooms Lake Rd	Pave Change	6	2021	$6,825	25
590	Unsealed Pavement	Honeysuckle Rd	00 Tooms Lake Rd	The Quoin	6	2021	$18,000	25
652	Unsealed Pavement	Kingston Rd	00 Nile Rd	Kingston Gate	6	2021	$21,150	25
735	Unsealed Pavement	Long Marsh	00 Lake Leake	Change	6	2021	$10,000	25
730	Unsealed Pavement	Long Marsh	00 Lake Leake	Pave Change	6	2021	$23,000	25
904	Unsealed Pavement	Munden La	00 Cressy Rd	Ends at Bridge	6	2021	$22,313	25
911	Unsealed Pavement	Musk Valley	Blackwood Ck	End	6	2021	$31,650	25
1232	Unsealed Pavement	Shack Rd	Tooms Lake Road	End	6	2021	$5,400	25
						Subtotal	$2,299,731	
5477	Bridge	Ashby Road		Pipe	7	2022	$21,312	70
3734	Bridge	Elphinstone Road		Box	7	2022	$16,360	70
3735	Bridge	Elphinstone Road		Box	7	2022	$15,984	70
2057	Bridge	Gipps Creek Road	Un-named Creek	T	7	2022	$58,800	30
9906	Bridge	Honeysuckle Road		Box	7	2022	$10,714	70
9909	Bridge	Hop Valley Road		Box	7	2022	$8,100	70
9900	Bridge	Liffey Road		Box	7	2022	$15,984	70
9901	Bridge	Liffey Road		Box	7	2022	$21,168	70
9903	Bridge	Liffey Road		Box	7	2022	$15,984	70
3428	Bridge	Macquarie Road		Box	7	2022	$21,546	70
4048	Bridge	Rothbury Road	Kingston Rivulet	Box	7	2022	$31,536	70
9964	Bridge	Royal George Ed		Pipe	7	2022	$48,808	70
1469	Bridge	Storeys Creek Road	Storeys Creek	TC	7	2022	$155,460	30
4000	Bridge	Storeys Creek Road	Tasmania Creek	TC	7	2022	$56,100	30
755	Pavement	Macquarie River Rd	Seal Change	11.29 Macquarie Settlement	7	2022	$179,100	70
1006	Pavement	Perth Mill Rd	00 Evandale Rd	Range Rd	7	2022	$348,600	60
1033	Pavement	Powranna Rd	00 Midlands Hwy	Pave Change	7	2022	$181,800	60

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1118	Pavement	Saundridge Rd	Bridge	Bridge	7	2022	$281,325	70
1401	Pavement	Wilmores La	Loading Ramp	Seal Change	7	2022	$286,200	70
1412	Pavement	Woolmers La	00 Midlands Hwy	5.35 Point Rd	7	2022	$277,140	60
1411	Pavement	Woolmers La	00 Midlands Hwy	Property Ent.	7	2022	$422,220	60
10	Seal	Anstey St	End K&C	Brickendon	7	2022	$8,550	18
14	Seal	Archer St Longford	Goderich St	George St	7	2022	$7,994	18
26	Seal	Arthur St, Avoca	Falmouth	Seal Change	7	2022	$3,249	30
62	Seal	Auburn Rd	00 Midlands Hwy	Seal Change	7	2022	$6,840	18
66	Seal	Auburn Rd	00 Midlands Hwy	Seal Change	7	2022	$21,888	18
114	Seal	Bellevue	00 Midlands Hwy	Seal Change	7	2022	$7,308	18
133	Seal	Bishopsbourne Rd	00 Illawarra	9.08 Armstrongs	7	2022	$9,752	18
131	Seal	Bishopsbourne Rd	00 Illawarra	Rail X	7	2022	$51,408	18
129	Seal	Bishopsbourne Rd	00 Illawarra	Seal Change	7	2022	$22,288	18
147	Seal	Blackwood Creek Rd	00 Saunderidge	9.18 Hodgetts	7	2022	$30,210	18
158	Seal	Bond St Ross	The Boulevards	Badajos St	7	2022	$5,757	18
169	Seal	Bracknell Rd	Liffey Rd	Liffey River	7	2022	$8,778	18
253	Seal	Charles St Cressy	Church St	End	7	2022	$8,361	20
265	Seal	Chiswick Rd Ross Access	00 Midlands Hwy	Seal Change	7	2022	$3,295	18
270	Seal	Church St Cressy	Main	Charles St	7	2022	$10,613	18
288	Seal	Clarence St	Talisker St	Frederick St	7	2022	$8,810	18
296	Seal	Clarendon Stat.	00 Nile Road	Clarendon Lodge	7	2022	$5,948	18
297	Seal	Clayfield Rd	00 Bishopbourne	Seal Change	7	2022	$1,300	18
349	Seal	Deddington	00 Nile Road	End of Seal	7	2022	$10,780	18
378	Seal	Drummond St	Scone	Drummond	7	2022	$2,484	18
396	Seal	Edward St	Cromwell St	Youl Main Rd	7	2022	$7,287	18
420	Seal	Ellesmere Perth Nursing Home Rd	Midland Hwy	Seal Change	7	2022	$5,106	18
453	Seal	Franklin St	Forster	Bedford	7	2022	$6,498	18
457	Seal	Frederick St	Midlands Hwy	Scone St	7	2022	$4,472	18
460	Seal	Gatenby St	Spencers Lane	Macquarie	7	2022	$11,515	18
530	Seal	Harmoll Pl	Seal Change	End of Court	7	2022	$6,848	18
544	Seal	High St Camp/T	Cond Change	Elizabeth	7	2022	$4,042	18
562	Seal	High St Ross	Church St	Bond St	7	2022	$7,630	18
561	Seal	High St Ross	Esplanade	Church St	7	2022	$2,704	18
566	Seal	High St Ross	Waterloo St	End of Seal	7	2022	$3,289	18
598	Seal	Hop Valley	00 Blackwood Ck	End Seal	7	2022	$16,472	18
658	Seal	Lake River Rd	00 Macquarie River	Seal Change	7	2022	$18,100	18
680	Seal	Laycock St	Malcombe St	Pulmey St	7	2022	$6,912	18

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695	Seal	Liffey Rd	00 Bishopbourne Rd	Seal Change	7	2022	$1,414	18
709	Seal	Liffey Rd	00 Bishopbourne Rd	Seal Change	7	2022	$20,300	18
708	Seal	Liffey Rd	00 Bishopbourne Rd	Seal Change	7	2022	$6,640	18
1477	Seal	Longford Caravan park	Start of Loop	End of Loop	7	2022	$3,600	18
745	Seal	Macquarie River Rd	00 Poatina Hwy	Lake River	7	2022	$50,744	18
772	Seal	Macquarie River Rd	00 Poatina Hwy	Seal Change	7	2022	$13,552	18
778	Seal	Macquarie River Rd	00 Poatina Hwy	Seal Change	7	2022	$35,280	18
746	Seal	Macquarie River Rd	Lake River	Seal Change	7	2022	$18,676	18
789	Seal	Macquarie St Evand	Barclay St SBL	Arthur	7	2022	$14,985	30
825	Seal	Malcombe St	Pakenham	Catherine	7	2022	$7,216	18
862	Seal	Merrywood	00 Royal George Rd	End of Seal	7	2022	$5,709	20
877	Seal	Mona Vale Rd	00 Midlands Hwy	Railway Line	7	2022	$12,328	18
896	Seal	Mount Joy Rd	00 Barton Rd	Seal Change	7	2022	$2,500	18
897	Seal	Mount Joy Rd	00 Barton Rd	Seal Change	7	2022	$6,580	16
940	Seal	Nile Rd	00 High St Evandale	Seal Change	7	2022	$25,880	18
955	Seal	Norfolk St	Frederick	Width Change	7	2022	$693	18
984	Seal	Park St Longford	Howick St	Hay St	7	2022	$2,232	18
1580	Seal	Patoena Rd	Esk Lyn	Norwich Rd	7	2022	$35,021	20
1035	Seal	Powranna Rd	00 Midlands Hwy	Seal Change	7	2022	$4,800	18
1055	Seal	Ridgeside	White Hills EBL	end Seal	7	2022	$5,292	18
1097	Seal	Royal George	00 St Pauls SBL	End of Seal	7	2022	$36,288	18
1086	Seal	Royal George	00 St Pauls SBL	Seal Change	7	2022	$15,582	18
1101	Seal	Russell St	Junction	Huxtable EBL	7	2022	$16,272	30
1106	Seal	Saundridge Rd	0.65 Elphingstone	Seal Change	7	2022	$13,440	18
1105	Seal	Saundridge Rd	Saundridge St Cressy(663m)	0.65 Elphingstone	7	2022	$17,755	18
1122	Seal	Saundridge St	Charles St	Murfett St	7	2022	$3,634	18
1142	Seal	Smith St	George	Goderich St	7	2022	$7,574	18
1182	Seal	Story's Creek Rd	Drain	Gipps Ck 12.56 Seal Change	7	2022	$44,585	18
1180	Seal	Story's Creek Rd	Seal	Drain	7	2022	$47,502	18
1193	Seal	Swan Av.	Wellington St	Gosling	7	2022	$1,408	16
1201	Seal	Tannery La	00 Illawarra Rd	Illawarra	7	2022	$28,752	18
1235	Seal	Tooms Lake Rd	Seal Change	16.57 Cattle Grid	7	2022	$9,828	18
1216	Seal	Tooms Lake Rd	Seal Change	Seal Change	7	2022	$2,592	18
1217	Seal	Tooms Lake Rd	Seal Change	Seal Change	7	2022	$3,570	18
1228	Seal	Tooms Lake Rd	Seal Change	Seal Change	7	2022	$21,269	18
1229	Seal	Tooms Lake Rd	Seal Change	Seal Change	7	2022	$16,884	18
1230	Seal	Tooms Lake Rd	Seal Change	Seal Change	7	2022	$9,274	18

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1261	Seal	Torlosse St	Seal Change	Forster St	7	2022	$1,430	18
1380	Seal	White Hills Rd	Dalmoss	3.11 Everton	7	2022	$51,200	18
1389	Seal	William St Longford	George St	Burghley St	7	2022	$14,661	18
1388	Seal	William St Longford	Marlborough St	George St	7	2022	$12,428	18
1402	Seal	Wilmores La	00 Cressy Main Rd	Bishopsborne	7	2022	$6,800	18
1419	Seal	Woolmers La	00 Midlands Hwy	Craccroft	7	2022	$8,140	18
						Subtotal	$3,477,047	
1820	Bridge	Brambletye Road	Horse Paddock Creek	TC	8	2023	$52,480	30
4733	Bridge	Honeysuckle Road	Cat Gully Creek	TC	8	2023	$43,840	30
4619	Bridge	Tooms Lake Road	Macquarie River	T	8	2023	$142,968	30
31.4	Footpath	Arthur St Evand	Macquarie	Leopold	8	2023	$2,496	15
30.4	Footpath	Arthur St Evand	Murray St EBL	Macquarie	8	2023	$3,728	15
179.1	Footpath	Bridge St Camp/T	Hamilton	Church	8	2023	$3,770	30
279.4	Footpath	Church St Ross	Change	Divided Rd	8	2023	$5,336	30
300.3	Footpath	Coachmans	Logan Rd	Seal Change	8	2023	$2,761	30
302.1	Footpath	Collins St Evendale	Huntable WBL	High St	8	2023	$525	15
302.2	Footpath	Collins St Evendale	Huntable WBL	High St	8	2023	$5,026	15
308.3	Footpath	Conara Rd	Start K&C	Ponec St	8	2023	$3,100	20
15012	Footpath	Dryden Pl	Seal Change	End of Bowl	8	2023	$7,047	30
383.2	Footpath	Dryden Pl.	William St	Seal Change	8	2023	$609	30
458.3	Footpath	Frederick St	Scone St	Clarence St	8	2023	$9,657	30
463.2	Footpath	George Hudson P	Wellington St	End of Bowl	8	2023	$4,141	30
463.4	Footpath	George Hudson P	Wellington St	End of Bowl	8	2023	$4,953	30
549.4	Footpath	High St Evendale	Cambock Lea West	Barclay	8	2023	$7,920	15
548.3	Footpath	High St Evendale	Leighlands + 12 m	Cambock Lea West	8	2023	$2,516	15
548.4	Footpath	High St Evendale	Leighlands + 12 m	Cambock Lea West	8	2023	$3,600	15
635.3	Footpath	King St Camp/T	East End(Bowl)	High	8	2023	$4,176	30
716.4	Footpath	Logan Rd	Stockmans	Seal Change	8	2023	$2,244	15
797.2	Footpath	Main St Cressy	Church	King	8	2023	$16,402	30
796.2	Footpath	Main St Cressy	Saundridge	Church	8	2023	$26,013	30
796.3	Footpath	Main St Cressy	Saundridge	Church	8	2023	$3,155	30
796.4	Footpath	Main St Cressy	Saundridge	Church	8	2023	$20,950	30
795.2	Footpath	Main St Cressy	Seal Change	Saundridge	8	2023	$17,574	30
794.2	Footpath	Main St Cressy	Start RH K&C	Seal Change	8	2023	$25,404	30
802.4	Footpath	Main St Cressy	Stock Route	End RH K&C	8	2023	$8,926	30
801.4	Footpath	Main St Cressy	William	Stock Route	8	2023	$7,830	30

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800.4	Footpath	Main St Cressy	Wilson	William	B	2023	$13,259	30
810.4	Footpath	Main St Perth	Scone	Talisker	B	2023	$6,496	30
841.2	Footpath	Marlborough St Longford	Hobhouse	Bulwer	B	2023	$4,774	15
1472.3	Footpath	Marlborough St West Side	Malcombe	Hobhouse	B	2023	$4,222	30
906.4	Footpath	Murfett St	Change	Church St	B	2023	$22,504	30
982.3	Footpath	Park St Longford	George St	Goderich St	B	2023	$868	15
1043.2	Footpath	Queen St	Seal Change	Bridge St	B	2023	$12,389	30
1150.4	Footpath	Spencers Lane	Cressy Rd	Gatenby St	B	2023	$1,075	15
1352.4	Footpath	Wellington St Longford	Seal Change	Swan	B	2023	$17,313	30
1353.4	Footpath	Wellington St Longford	Swan	Pultney	B	2023	$10,962	30
1389.1	Footpath	William St Longford	George St	Burghley St	B	2023	$10,988	30
87.4	Kerb	Baker St	EOS Rossarden Rd	End Seal	B	2023	$2,133	15
180.4	Kerb	Bridge St Campb T	Church	Midlands Hwy	B	2023	$702	15
184.1	Kerb	Bridge St Campb T	Clare	End of Seal	B	2023	$648	15
574.4	Kerb	Hobhouse St	End Path	Laycock St	B	2023	$585	15
634.4	Kerb	Kalangadoo Rd	Lake Leake Rd	Ends at Lake	B	2023	$5,490	15
718.4	Kerb	Logan Rd	Seal Change	Last Gate	B	2023	$1,656	15
851.4	Kerb	Mason St Campb T	Davidson St	Leake St	B	2023	$747	15
987.4	Kerb	Park St Ross	High	Badajos St	B	2023	$1,296	15
1260.2	Kerb	Torlesse St	Midlands Hwy	Seal Change	B	2023	$378	15
1261.2	Kerb	Torlesse St	Seal Change	Forster St	B	2023	$909	15
295	Pavement	Clarendon Stat.	00 Nile Road	Seal Change	B	2023	$313,200	80
532	Pavement	Haslewood St	00 Brumby	Marlborough	B	2023	$185,640	80
664	Pavement	Lake River Rd	00 Macquarie River	Seal Change	B	2023	$169,500	60
665	Pavement	Lake River Rd	00 Macquarie River	Seal Change	B	2023	$115,380	60
931	Pavement	Nile Rd	00 High St Evendale	S 10 Clarendon L Rd	B	2023	$175,440	60
951	Pavement	Nivelle St	Badajos St Fence Line	End of Seal	B	2023	$48,392	90
1450	Pavement	Valleyfield Rd	Barton	Pave Change	B	2023	$93,000	70
8	Seal	Anstey St	Lewis	Chicholt St	B	2023	$7,205	18
15	Seal	Armstrongs La	00 Bishopbourne	E 69 Grubbers Hill	B	2023	$39,700	18
18	Seal	Armstrongs La	00 Bishopbourne	Bridge	B	2023	$33,072	18
33	Seal	Arthur St Perth	M'Lands H'Way	Mulgrave St	B	2023	$12,998	18
41	Seal	Ashby Rd	00 Midlands Hwy	Seal Change	B	2023	$4,626	18
70	Seal	Auburn Rd	00 Midlands Hwy	Seal Change	B	2023	$7,700	18
117	Seal	Bellevue	00 Midlands Hwy	Seal Change	B	2023	$13,950	18
124	Seal	Berresford Pl.	Hartnell Pl.	End of Cr.	B	2023	$3,096	18
128	Seal	Bishopsbourne Rd	00 Illawarra	2.48 Ashborough	B	2023	$22,736	18

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127	Seal	Bishopsbourne Rd	00 Illawarra	Seal Change	8	2023	$38,869	18
130	Seal	Bishopsbourne Rd	00 Illawarra	Wilmores	8	2023	$29,224	18
159	Seal	Bond St Ross	Badajos St	High	8	2023	$4,935	18
184	Seal	Bridge St Camp/T	Clare	End of Seal	8	2023	$1,747	18
189	Seal	Bridge St Ross	Beaufort	Parke	8	2023	$6,909	18
190	Seal	Bridge St Ross	Parke	Waterloo St.	8	2023	$4,919	18
221	Seal	Bulwer St	Burghley	BRIDGE	8	2023	$4,696	18
215	Seal	Bulwer St	Laycock	Stocker	8	2023	$1,082	18
1513	Seal	Caledonia Dr	Relbia	End of bowl	8	2023	$64,030	20
272	Seal	Church St Nth C/W	Divided Rd	Width Change	8	2023	$3,511	18
273	Seal	Church St Nth C/W	Width Change	End Car Park	8	2023	$1,848	18
294	Seal	Clarendon Lodge	00 Nile Rd	End of Seal	8	2023	$7,920	18
308	Seal	Conara Rd	Start K&C	Panec St	8	2023	$13,338	18
328	Seal	Cromwell St	Youl Main Rd	End Left Kerb	8	2023	$2,654	18
351	Seal	Deddington	00 Nile Road	End of Seal	8	2023	$3,410	18
375	Seal	Drummond Crs.	Change	Drummond	8	2023	$3,410	18
374	Seal	Drummond Crs.	Change	Start Kerb	8	2023	$3,255	18
386	Seal	East St	William St	Pedder St	8	2023	$6,838	18
407	Seal	Elphinstone Rd	00 Green Rises Rd	Bridge	8	2023	$41,184	18
406	Seal	Elphinstone Rd	00 Green Rises Rd	Macrae Rll	8	2023	$10,070	18
424	Seal	Esplanade Ross	High St SBL	Caravan Park	8	2023	$2,038	18
1518	Seal	Glenesk Rd	Seal Change	Midlands Hwy	8	2023	$2,873	18
519	Seal	Green Rises	1.21 Elphinstone	Seal Change	8	2023	$24,500	18
521	Seal	Green Rises	Seal Change	4.79 Armstrongs	8	2023	$41,004	18
536	Seal	Hay St	Park	Seal Change	8	2023	$3,120	18
537	Seal	Hay St	Seal Change	End	8	2023	$1,178	18
547	Seal	High St Camp/T	Bing	Red Bridge	8	2023	$14,368	18
560	Seal	High St Longford	Seal Change	End	8	2023	$927	18
572	Seal	Hobart Rd	Bridge	Assumed Boundary	8	2023	$43,697	18
610	Seal	Huxtable Lane	Russell St	Collins St	8	2023	$1,842	18
657	Seal	Lake River Rd	00 Macquarie River	Seal Change	8	2023	$35,893	18
712	Seal	Liffey Rd	00 Bishopbourne Rd	Liffey River	8	2023	$28,600	18
709	Seal	Liffey Rd	00 Bishopbourne Rd	Pave Change	8	2023	$13,304	18
702	Seal	Liffey Rd	00 Bishopbourne Rd	Seal Change	8	2023	$16,422	18
699	Seal	Liffey Rd	3.91 Green Rises	4.77 Bracknell	8	2023	$29,484	18
700	Seal	Liffey Rd	4.77 Bracknell	Seal Change	8	2023	$25,090	18
766	Seal	Macquarie River Rd	00 Poatina Hwy	Seal Change	8	2023	$38,000	18

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771	Seal	Macquarie River Rd	00 Poatina Hwy	Seal Change	8	2023	$17,284	18
779	Seal	Macquarie River Rd	00 Poatina Hwy	Seal Change	8	2023	$45,725	18
758	Seal	Macquarie River Rd	13.70 Darlington Park	Culvert	8	2023	$46,868	18
763	Seal	Macquarie River Rd	20.23 Barton	20.55 Isis	8	2023	$21,137	18
759	Seal	Macquarie River Rd	Culvert	Pave Change	8	2023	$12,897	18
760	Seal	Macquarie River Rd	Pave Change	Seal Change	8	2023	$33,859	18
754	Seal	Macquarie River Rd	Seal Change	Seal Change	8	2023	$23,199	18
784	Seal	Macquarie St Cressy	Cressy Rd	Gittenby St	8	2023	$3,706	18
812	Seal	Main St Perth	Clarence	Start RH K&C	8	2023	$1,331	18
807	Seal	Main St Perth	Mary	King	8	2023	$2,705	18
813	Seal	Main St Perth	Start RH K&C	End RH K&C	8	2023	$1,814	18
818	Seal	Maitland La	00 Green Rises	End of Seal	8	2023	$1,892	18
827	Seal	Malcombe St	Catherine	Burghley	8	2023	$6,781	18
842	Seal	Marlborough St Longford	Bulwer	Lewis	8	2023	$1,380	16
881	Seal	Mount Joy Rd	00 Barton Rd	Seal Change	8	2023	$8,497	16
887	Seal	Mount Joy Rd	00 Barton Rd	Seal Change	8	2023	$28,900	18
885	Seal	Mount Joy Rd	00 Barton Rd	Seal Change	8	2023	$31,464	18
886	Seal	Mount Joy Rd	00 Barton Rd	Seal Change	8	2023	$14,436	18
884	Seal	Mount Joy Rd	00 Barton Rd	Seal Change	8	2023	$26,338	18
899	Seal	Mulgrave St	Phillip St	Arthur St	8	2023	$8,676	18
953	Seal	Norfolk St	Drummond St	Seal Change	8	2023	$3,411	18
954	Seal	Norfolk St	Seal Change	Frederick	8	2023	$4,031	18
956	Seal	Norfolk St	Width Change	End	8	2023	$2,036	18
994	Seal	Pareeno Rd	00 Illawarra Rd	Culvert	8	2023	$47,968	18
1011	Seal	Phillip St	Cromwell St	Seal Change	8	2023	$7,514	20
1014	Seal	Phillip St	Midlands Hwy	Mulgrave St	8	2023	$7,858	18
1012	Seal	Phillip St	Seal Change	York Main Rd	8	2023	$2,568	18
1015	Seal	Pitts Lane	Liffey	Pave Change	8	2023	$14,204	18
1029	Seal	Powranna Rd	00 Midlands Hwy	12.77 Bridge	8	2023	$34,738	18
1034	Seal	Powranna Rd	00 Midlands Hwy	16.76 Barlington	8	2023	$43,424	18
1027	Seal	Powranna Rd	00 Midlands Hwy	9.21 E Panshanger	8	2023	$42,240	18
1028	Seal	Powranna Rd	00 Midlands Hwy	Seal Change	8	2023	$29,382	18
1030	Seal	Powranna Rd	00 Midlands Hwy	Seal Change	8	2023	$9,076	18
1504	Seal	Sassafras St	Seal Change	Seal Change	8	2023	$4,014	18
1107	Seal	Saundridge Rd	Seal Change	Change	8	2023	$11,938	18
1123	Seal	Saundridge St	Murfett St	Last House	8	2023	$7,354	18
1195	Seal	Talbot St	Catherine St	Cressy Rd	8	2023	$11,250	18

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1234	Seal	Tooms Lake Rd	15.43 Cattle Grid	Seal Change	8	2023	$7,062	16
1214	Seal	Tooms Lake Rd	Seal Change	Seal Change	8	2023	$7,280	18
1227	Seal	Tooms Lake Rd	Seal Change	Seal Change	8	2023	$25,568	18
1231	Seal	Tooms Lake Rd	Seal Change	Seal Change	8	2023	$4,896	18
1220	Seal	Tooms Lake Rd	Seal Change	Seal Change	8	2023	$10,098	18
1225	Seal	Tooms Lake Rd	Seal Change	Seal Change	8	2023	$3,876	18
1232	Seal	Tooms Lake Rd	Seal Change	Seal Change	8	2023	$8,064	18
1537	Seal	Torlesse St	Forster St	Pavement Change	8	2023	$3,938	16
1319	Seal	Valleyfield Rd	00 Barton Rd	Seal Change	8	2023	$16,340	18
1323	Seal	Valleyfield Rd	00 Barton Rd	Seal Change	8	2023	$4,518	18
1324	Seal	Valleyfield Rd	00 Barton Rd	Seal Change	8	2023	$33,176	18
1327	Seal	Valleyfield Rd	00 Barton Rd	Seal Change	8	2023	$21,924	18
1450	Seal	Valleyfield Rd	Barton	Pave Change	8	2023	$5,916	18
1358	Seal	Wellington St Longford	Lewis	Cracroft Cl	8	2023	$7,985	16
1360	Seal	Wellington St Ross	Seal Change	End of Seal	8	2023	$1,452	18
1359	Seal	Wellington St Ross	Tooms Lake Rd	Seal Change	8	2023	$1,080	18
1361	Seal	West Cambok Ln	Main Rd NBL	Side Entry Pit	8	2023	$11,268	30
1362	Seal	West Cambok Ln	Side Entry Pit	Change	8	2023	$42,912	30
1375	Seal	Weston St	00 Brumby St	Pave Change	8	2023	$5,040	18
1386	Seal	William St Campb. T	M'Lands H'Way	East St	8	2023	$5,867	18
1387	Seal	William St Cressy	Archer St	Cressy Rd	8	2023	$9,049	20
1403	Seal	Wilson St	Cressy Rd	Archer St	8	2023	$5,478	18
206	Unsealed Pavement	Bryants Lane	00 Deddington Rd	Fenceline	8	2023	$40,000	10
367	Unsealed Pavement	Delmont	00 Macquarie River Rd	Macquarie Settlement	8	2023	$39,350	20
1558	Unsealed Pavement	Fitzroy St Pt 2	Bridge St Ross	Gate	8	2023	$1,575	20
564	Unsealed Pavement	High St Ross	Rail X	Park	8	2023	$2,025	20
817	Unsealed Pavement	Maitland La	00 Green Rises	Start of Seal	8	2023	$19,000	20
952	Unsealed Pavement	Nivelle St	End of Seal	End	8	2023	$270	20
1176	Unsealed Pavement	Story's Creek Rd	00 Esk Hwy	Change	8	2023	$24,075	10
1177	Unsealed Pavement	Story's Creek Rd	00 Esk Hwy	Drain	8	2023	$52,988	10
1331	Unsealed Pavement	Verwood Rd	00 Auburn Rd	Change	8	2023	$15,300	20
1333	Unsealed Pavement	Verwood Rd	Bridge	Ends at Gate	8	2023	$8,375	20
						Subtotal	$3,389,821	
1438.3	Footpath	Church St Ross Ext F/P	High	Change	9	2024	$2,484	70
119	Pavement	Bellevue	00 Midlands Hwy	Ends at Gate	9	2024	$264,690	80
341	Pavement	Deddington	00 Nile Road	Seal Change	9	2024	$305,100	70

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340	Pavement	Deddington	00 Nile Road	Seal Change	9	2024	$331,560	70
369	Pavement	Devon Hills	00 Midlands Hwy	Loop Rd	9	2024	$203,400	70
496	Pavement	Glenesk Rd	00 Nile Rd	Seal Change	9	2024	$256,575	70
525	Pavement	Green Rises	Change	Seal Change	9	2024	$148,500	70
550	Pavement	High St Evendale	Barclay	Russell	9	2024	$58,880	70
760	Pavement	Macquarie River Rd	Pave Change	Seal Change	9	2024	$262,350	70
785	Pavement	Macquarie St Cressy	Gatenby St	Condition Change	9	2024	$38,172	90
979	Pavement	Panshanger Rd	00 Woolmers	Seal Change	9	2024	$267,300	70
1087	Pavement	Royal George	00 St Pauls SBL	Old Seal Change	9	2024	$156,750	70
1080	Pavement	Royal George	00 St Pauls SBL	Seal Change	9	2024	$242,100	70
1086	Pavement	Royal George	00 St Pauls SBL	Seal Change	9	2024	$115,500	70
1379	Pavement	White Hills Rd	Seal Change	Dalmess	9	2024	$178,500	70
71	Seal	Auburn Rd	00 Midlands Hwy	Bolitree	9	2024	$6,760	18
65	Seal	Auburn Rd	00 Midlands Hwy	Seal Change	9	2024	$3,984	18
126	Seal	Bishopsbourne Rd	00 Illawarra	Seal Change	9	2024	$2,787	18
142	Seal	Blackwood Creek Rd	00 Saunderidge	2.20 Stoneycroft	9	2024	$17,940	18
192	Seal	Bridge St S/B	Church WBL	Change	9	2024	$9,152	14
201	Seal	Brumby St	00 Brickendon	End of Seal	9	2024	$1,949	18
251	Seal	Charles St Cressy	Saundridge St	Seal Change	9	2024	$9,807	18
258	Seal	Chintah Rd	00 Powaranna	Change	9	2024	$28,184	18
262	Seal	Chintah Rd	00 Powaranna	Spencer	9	2024	$42,550	18
271	Seal	Church St Cressy	Charles St	Murfett	9	2024	$13,348	20
333	Seal	Cromwell St	Nelson	Phillip St	9	2024	$7,845	20
332	Seal	Cromwell St	Seal Change	Nelson	9	2024	$4,136	20
404	Seal	Elphinstone Rd	00 Green Rises Rd	Seal Change	9	2024	$17,368	18
405	Seal	Elphinstone Rd	00 Green Rises Rd	Seal Change	9	2024	$16,920	18
403	Seal	Elphinstone Rd	Seal Change	Pave Change	9	2024	$22,680	18
423	Seal	Esplanade Camp T	Change	Bridge St	9	2024	$585	18
451	Seal	Forster St	Montagu	Torlesse St	9	2024	$9,926	18
462	Seal	Gemini Crt	Malcombe St	End of Bowl	9	2024	$18,932	30
520	Seal	Green Rises	Seal Change	Seal Change	9	2024	$16,700	18
694	Seal	Lewis St	Horne	Wellington St	9	2024	$5,504	18
696	Seal	Liffey Rd	00 Bishopbourne Rd	2.10 Pitts	9	2024	$41,473	18
698	Seal	Liffey Rd	00 Bishopbourne Rd	1.91 Green Rises	9	2024	$23,870	18
697	Seal	Liffey Rd	00 Bishopbourne Rd	Seal Change	9	2024	$12,960	18
765	Seal	Macquarie River Rd	00 Poatina Hwy	Seal Change	9	2024	$24,100	18
762	Seal	Macquarie River Rd	18.99 Rothbury	20.23 Barton	9	2024	$29,400	18

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808	Seal	Main St Perth	King	Frederick	9	2024	$5,523	18
810	Seal	Main St Perth	Scone	Talisker	9	2024	$2,604	18
845	Seal	Marlborough St Longford	Cracroft	End K&C	9	2024	$8,888	20
841	Seal	Marlborough St Longford	Hobhouse	Bulwer	9	2024	$1,916	16
894	Seal	Mountjoy Rd	00 Barton Rd	Seal Change	9	2024	$5,488	18
892	Seal	Mountjoy Rd	00 Barton Rd	Seal Change	9	2024	$17,214	18
1585	Seal	Mount Joy Rd	Seal Change	Seal Change	9	2024	$30,267	18
1036	Seal	Powranna Rd	00 Midlands Hwy	Cressy Main Rd	9	2024	$15,750	30
1026	Seal	Powranna Rd	00 Midlands Hwy	Seal Change	9	2024	$26,760	18
1200	Seal	Tannery La	00 Illawarra Rd	Bend Right	9	2024	$13,984	18
1222	Seal	Tooms Lake Rd	Seal Change	Bridge	9	2024	$49,301	20
1221	Seal	Tooms Lake Rd	Seal Change	Seal Change	9	2024	$84,538	20
1213	Seal	Tooms Lake Rd	Seal Change	Seal Change	9	2024	$7,344	18
1326	Seal	Valleyfield Rd	00 Barton Rd	Seal Change	9	2024	$15,956	18
1357	Seal	Wellington St Longford	Bulwer	Invis	9	2024	$5,460	18
1391	Seal	William St Perth	Dryden	Talisker St	9	2024	$2,621	16
1393	Seal	William St Perth	Frederick St	Elizabeth St	9	2024	$3,854	16
1390	Seal	William St Perth	Old Punt Rd	Dryden	9	2024	$2,234	16
1392	Seal	William St Perth	Talisker St	Frederick St	9	2024	$3,210	16
1415	Seal	Woolmers La	00 Midlands Hwy	Bridge Ctr	9	2024	$16,576	18
1411	Seal	Woolmers La	00 Midlands Hwy	Property Ent	9	2024	$56,296	18
207	Unsealed Pavement	Bryants Lane	00 Deddington Rd	Change	9	2024	$40,000	10
209	Unsealed Pavement	Bryants Lane	00 Deddington Rd	Double Gate LHS	9	2024	$34,088	10
210	Unsealed Pavement	Bryants Lane	00 Deddington Rd	Gate RHS	9	2024	$34,125	10
211	Unsealed Pavement	Bryants Lane	00 Deddington Rd	Nile Rd	9	2024	$29,375	10
1178	Unsealed Pavement	Story's Creek Rd	00 Esk Hwy	Stanhope	9	2024	$36,750	10
1179	Unsealed Pavement	Story's Creek Rd	Stanhope	Seal	9	2024	$5,225	10
						Subtotal	$3,775,969	

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Appendix B Projected 10 year Capital Upgrade/New Works program

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Capital Expenditure on Renewal/Replacement of existing assets	$5,127	$3,201	$364	$1,751	$722	$2,502	$2,300	$3,477	$3,390	$3,776
Capital Expenditure on Upgrade/New assets	$550	$550	$550	$550	$550	$550	$550	$550	$550	$550
Operational cost of existing assets	$395	$395	$395	$395	$395	$395	$395	$395	$395	$395
Maintenance cost of existing assets	$2,280	$2,280	$2,280	$2,280	$2,280	$2,280	$2,280	$2,280	$2,280	$2,280
Operational cost of New assets	$0	$1	$3	$4	$5	$7	$8	$9	$11	$12
Maintenance cost of New assets	$0	$8	$16	$23	$31	$39	$47	$55	$62	$70
Disposal of Surplus assets	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

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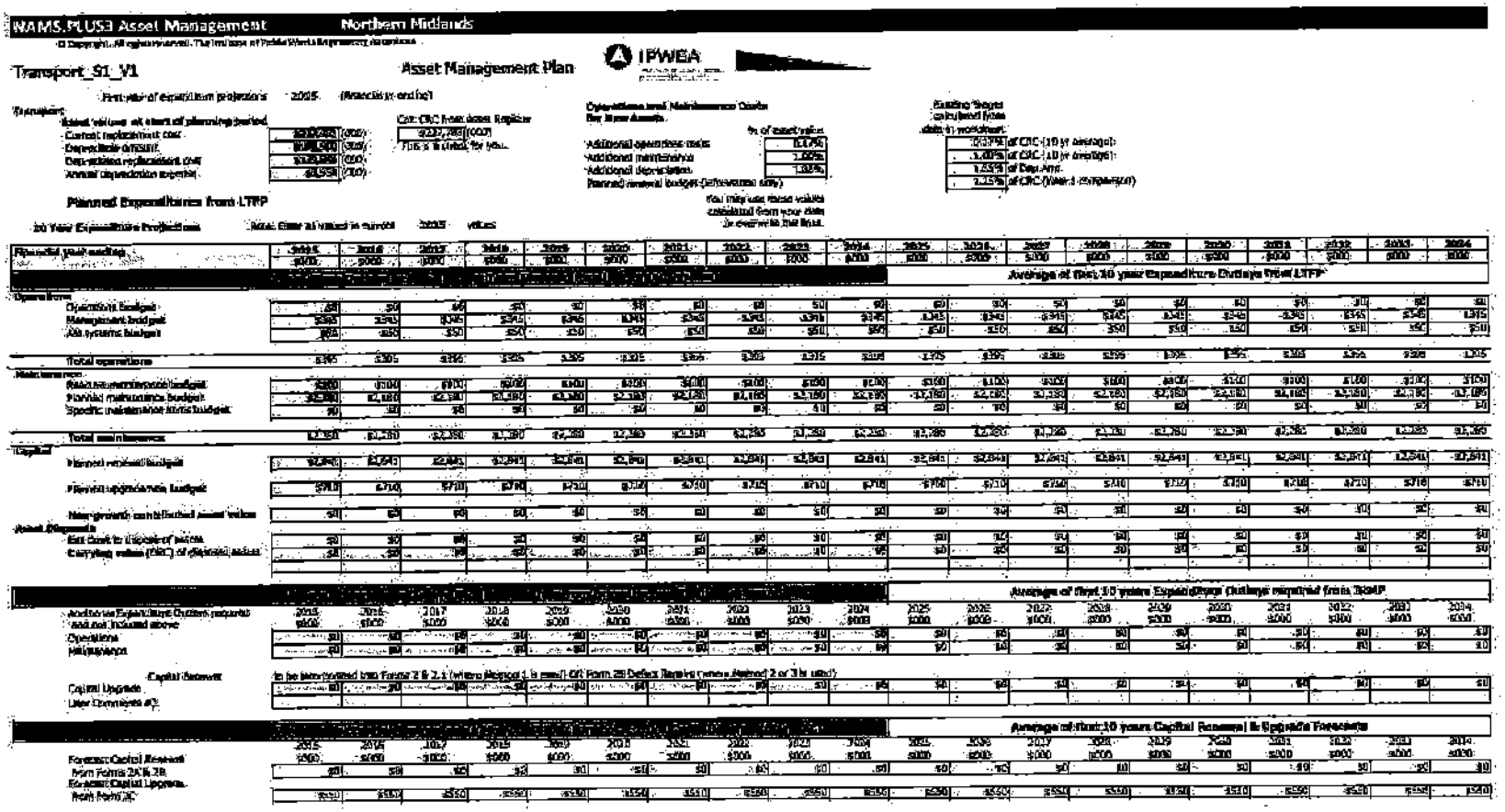
Appendix C LTFP Budgeted Expenditures Accommodated in AM Plan



NAMS.PLUS3 Asset Management — Northern Midlands

Transport_S1_V1 — Asset Management Plan

Planned Expenditures from LTFP

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Appendix D Planned Expenditure for LTFP

Northern Midlands >> Planned Expenditures for Long Term Financial Plan (Transport)								
Year End (Jun-Yr)	Road Operations Expenditure ($'000)	Total Maintenance Expenditure ($'000)	Projected Capital Renewal Expenditure ($'000)	Planned Capital Upgrade/ New Expenditure ($'000)	Planned Deposits ($'000)	Planned Capital Renewal Expenditure ($'000)	Shortfall in Renewal Expenditure (Projected - Planned) ($'000)	Cumulative Renewal Funding Shortfall ($'000)
2011	$640.42	$1,907.22	$5,815.75	$459.34	$0.00	$3,293.00	$2,522.75	$2,522.75
2012	$642.85	$1,914.43	$1,713.44	$459.34	$0.00	$3,293.00	-$1,579.56	$943.19
2013	$645.27	$1,921.65	$3,288.23	$459.34	$0.00	$3,293.00	-$4.77	$938.42
2014	$647.69	$1,928.87	$2,550.42	$459.34	$0.00	$3,293.00	-$742.58	$195.84
2015	$650.12	$1,936.09	$2,989.95	$459.34	$0.00	$3,293.00	-$303.05	-$107.21
2016	$652.54	$1,943.30	$5,196.26	$459.34	$0.00	$3,293.00	$1,903.26	$1,796.05
2017	$654.96	$1,950.52	$4,177.64	$459.34	$0.00	$3,293.00	$884.64	$2,680.70
2018	$657.39	$1,957.74	$1,849.08	$459.34	$0.00	$3,293.00	-$1,443.92	$1,236.77
2019	$659.81	$1,964.95	$2,648.09	$459.34	$0.00	$3,293.00	-$644.91	$591.86
2020	$662.23	$1,972.17	$2,781.53	$459.34	$0.00	$3,293.00	-$511.47	$80.40
2021	$664.66	$1,979.39	$3,558.32	$459.34	$0.00	$3,293.00	$265.32	$345.71
2022	$667.08	$1,986.61	$6,536.13	$459.34	$0.00	$3,293.00	$3,243.13	$3,588.84
2023	$669.51	$1,993.82	$3,146.03	$459.34	$0.00	$3,293.00	-$146.97	$3,441.88
2024	$671.93	$2,001.04	$3,522.60	$459.34	$0.00	$3,293.00	$229.60	$3,671.48
2025	$674.35	$2,008.26	$4,105.37	$459.34	$0.00	$3,293.00	$812.37	$4,483.85
2026	$676.78	$2,015.48	$1,104.75	$459.34	$0.00	$3,293.00	-$2,188.25	$2,295.60
2027	$679.20	$2,022.69	$2,199.96	$459.34	$0.00	$3,293.00	-$1,093.04	$1,202.56
2028	$681.62	$2,029.91	$5,848.83	$459.34	$0.00	$3,293.00	$2,555.83	$3,758.39
2029	$684.05	$2,037.13	$2,833.24	$459.34	$0.00	$3,293.00	-$459.76	$3,298.63
2030	$686.47	$2,044.34	$3,240.30	$459.34	$0.00	$3,293.00	-$52.70	$3,245.93
			$69,105.92	**$9,186.80**		**$65,860.00**	**$3,245.92**	

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Appendix E Road Hierarchy and Target Design Standards

Road Hierarchy Categories	Sub-Categories	Description of Categories	Target Design Standards
Category 5: Arterial State Gov't Responsibility	State Arterials	• Function is to carry the heaviest volumes of traffic, including commercial vehicles, and provide the principal routes for traffic flows in and around the municipality. These come under the jurisdiction of DIER and as such maintenance of the road pavement & surface is not the responsibility of Council.	
Category 4: Link Roads	Link Road	• Link roads provide the linkage between centres and they are supplementary to the arterial road system within the municipal area. • Link roads generally have a relatively high vehicle count.	• 6.2m wide seal; • 1.0m wide shoulders; • Pavement designed in accordance with DEIR Guide to Pavement Design, Technical Bulletin No.37
	Industrial Road	• Industrial roads provide heavy vehicle access directly to industries (including forestry) and have a high heavy vehicle count.	• 6.2m wide seal; • 1.0m wide shoulders; • Pavement depth in accordance with Technical Bulletin No.37
Category 3: Collector Roads	Collector – Sealed	• Carry moderate volumes of traffic and provide access by linking local areas to link and arterial roads. • They also provide links between the various collector roads. • They should have limited through traffic (this is not promoted or encouraged).	• 5.5m. wide seal; • Rehabilitation to existing standard; • Pavement depth in accordance with Technical Bulletin No.37
	Collector – Gravel	• Carry moderate volumes of traffic and provide access by linking local areas to link and arterial roads.	• 5.5m width pavement; • Resheeting depth 100 mm
Category 2: Local Access Roads	Access – Sealed	• Primary function is to provide access to properties; • They cater for relatively short distance travel to higher level roads.	• 4.8m wide seal; • Rehabilitation to existing standard; • Pavement depth in accordance with Technical Bulletin No.37
	Access – Gravel	• Primary function is to provide access to properties; • They cater for relatively short distance travel to higher level roads.	• 4.8m width pavement; • Resheeting depth 75 mm
Category 1: Low Maintenance Lanes and Tracks	Limited Access Roads	• Provide secondary property access	• 4.5m width pavement (sealed & gravel); • Resheeting depth 75 mm (gravel)
Non Council Responsibility	Crown Road Reserves	• In Crown or private ownership so not a Council responsibility.	
	Private Roads & Lanes	• In private ownership/control so not a Council responsibility.	

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Reference sources for descriptions:
- *Road Management Act 2004 (Victoria)*
- *International Infrastructure Management Manual – Australia/NZ Edition 2002*
- *UK Highway Code of Practice for Maintenance Management 2001*

Appendix F Inspection Requirements

Inspection Type	Purpose	Inspection Performed by & Reporting Requirements
Risk Assessment Reactive/Safety Inspection	▪ Safety inspections are designed to identify all defects likely to create danger or serious inconvenience to users of the network or the wider community. ▪ Safety issues may be detected as the result of: observation followed by notification to council either by members of the community or by council employees while undertaking their normal work duties with a subsequent safety inspection to be conducted by an appropriate council officer.	▪ Council representative with some knowledge of road maintenance techniques who may then call in a higher level of expertise if necessary. ▪ Recording to identify specific safety defect, time first reported, time inspected & by whom, subsequent action & time of completion.
Incident Inspection	▪ This inspection enables an incident condition report to be prepared for use in legal proceedings and the gathering of information for the analysis of the causes of accidents and the planning and implementation of road management and safety measures.	▪ Qualified engineer or experienced technical officer with extensive knowledge and experience in road construction and maintenance practices. ▪ Formal Incident Report prepared.
Programmed Inspection	▪ Footpaths and bridges - Inspection undertaken in accordance with a formal inspection schedule to determine if there are defects that need remedial work; ▪ Roads and kerb & channel – No formal program of inspections is undertaken to detect	▪ Engineer or technical officer with knowledge of road maintenance techniques; ▪ A record of the inspection is to be signed by the inspector for placing on council's asset database for reference purposes (NB: this may include insurance or litigation requirements).
Condition Inspection	▪ An inspection specifically to identify deficiencies in the structural integrity of the various components of the road infrastructure assets which if untreated, are likely to adversely affect network values. The deficiencies may well impact short-term serviceability as well as the ability of the component to continue to perform for the duration of its intended life span; ▪ The condition inspection process must also meet the requirements for accounting regulations and asset management; ▪ Regular or periodic assessment, measurement and interpretation of the resulting condition data is required so as to determine the need for any preventive or remedial action then development of relevant programs of rehabilitation or renewal works.	▪ Inspection undertaken under the direction of a qualified engineer or experienced technical officer with extensive knowledge and experience in road construction and maintenance practices; ▪ Specific data to be recorded is determined by requirements of the Asset Information System which is then used to assess asset component needs.

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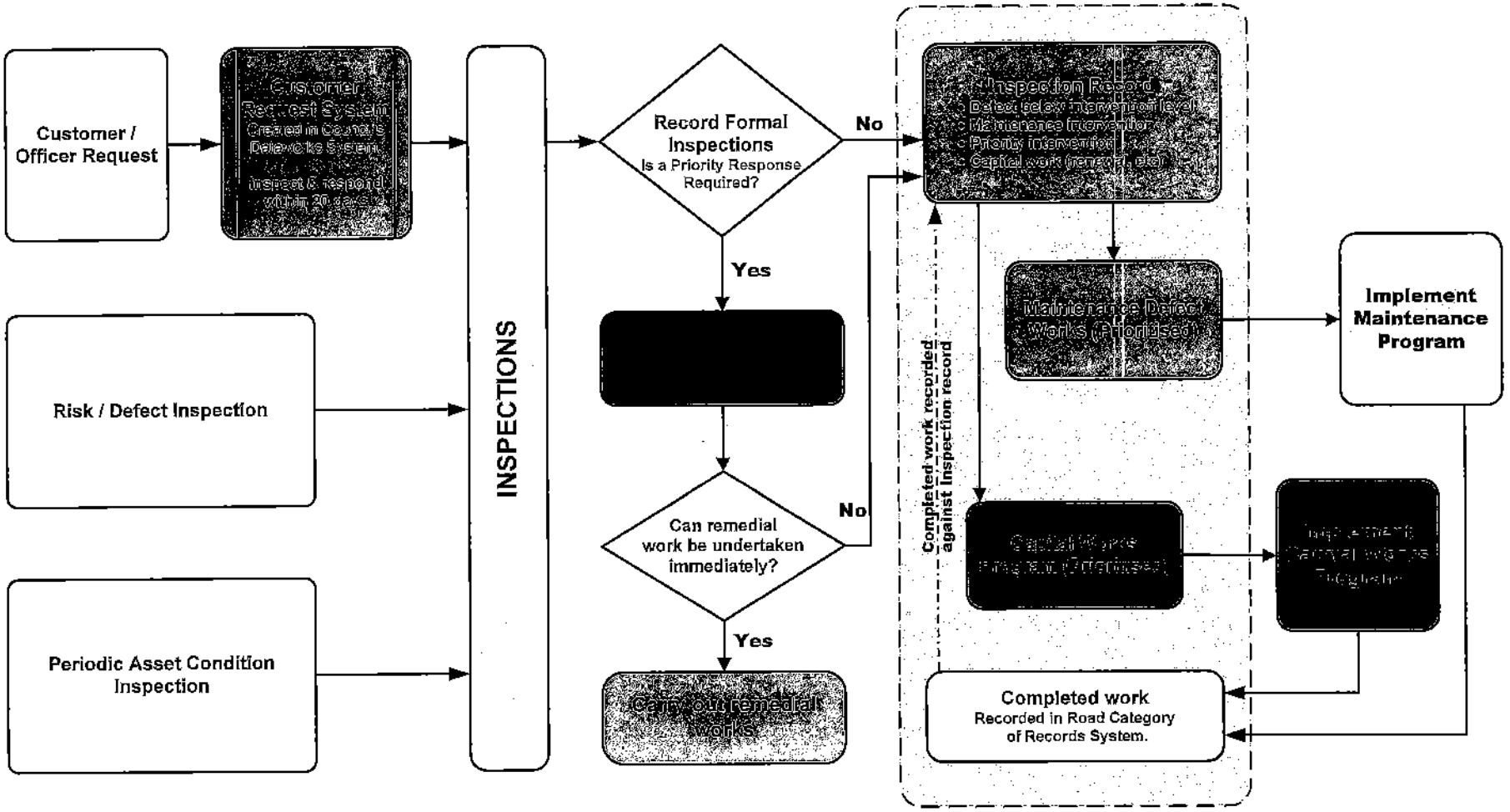
Road Asset Inspection Frequencies

Asset Group Category		Inspection Interval	
Hierarchy Category	Sub-Category	Programmed Inspections	Condition Inspections (for Structural & Physical Integrity)
Roads			
Category 5:	Primary Arterial	DIER responsibility	DIER responsibility
Category 4:	Link Roads	Annually	3-4 Years
Category 3:	Collector Road – Sealed	Annually	3-4 Years
	Collector Road – Gravel	Annually	3-4 Years
Category 2:	Local Access Road – Sealed	Annually	3-4 Years
	Local Access Road – Unsealed	Annually	3-4 Years
Category 1	Limited Access Road – Sealed	Annually	3-4 Years
	Limited Access Road – Unsealed	Annually	3-4 Years
Footpaths			
Category 3:	Shopping Zones	Annually	3-4 Years
Category 2:	Specific Pedestrian Generators	Annually	3-4 Years
Category 1:	Other Areas	Annually	3-4 Years
Kerb & Channel			
Category 4 Roads:	Link Roads & Industrial Roads	3 Years	3-4 Years
Category 3 Roads:	Collector	3 Years	3-4 Years
Category 2 Roads:	Local Access Roads & Streets	3 Years	3-4 Years
Category 1 Roads:	Limited Local Access Roads	3 Years	3-4 Years
Bridges/Major Culverts			
Category 4 Roads:	Link Roads & Industrial Roads	Annually	3-4 Years
Category 3 Roads:	Collector	Annually	3-4 Years
Category 2 Roads:	Local Access Roads & Streets	Annually	3-4 Years
Category 1 Roads:	Limited Local Access Roads	Annually	3-4 Years

Inspection Management Flow Chart



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Appendix G Maintenance Response Levels of Service (Defect Tolerance Levels)

INTERVENTION LEVELS – SEALED ROADS					
Service Code	Item	Defect Levels when Intervention is Required	Cat	Target Rectification Response Time	Unit
PH	Pothole Patching	Repair if conditions are wet and the hole is unsafe or likely to deteriorate. In dry conditions, repair if hole >35mm deep or 400mm diam.	4	Within 3 working days	m^2
			3	5 working days	m^2
			2	15 working days	m^2
			1	20 working days	m^2
WR	Wheel Rutting	Regulate if >50mm (Cat 4) or 75mm (Cat 3/2) deep under a 1.2m straight edge . Areas >25m^2	4	8 weeks	m^2
			3	16 weeks	m^2
			2	16 weeks	m^2
			1	20 weeks	m^2
CSR	Crack Sealing	Fill all cracks >10 mm wide and a length > 2.0m	4	6 weeks	lin.m
			3	12 weeks	lin.m
			2	12 weeks	lin.m
			1	20 weeks	lin.m
MR	Minor Reseals	If stripping >10m^2 & stone loss >50% without pavement failure.	4	4 weeks	m^2
			3	12 weeks	m^2
			2	12 weeks	m^2
			1	20 weeks	
DP	Depressions	Regulate if >50mm (Cat 4) or 75mm (Cat 3/2) deep under a 1.2m straight edge. Areas >25m^2.	4	8 weeks	m^2
			3	16 weeks	m^2
			2	16 weeks	m^2
			1	20 weeks	m^2
SW	Sweeping	Any area > 40m^2 that has build up that is visible in the travel path and/or is a potential hazard to vehicles or pedestrians.	4	Within 5 working days	hours
			3	2 weeks	hours
			2	3 weeks	hours
			1	4 weeks	hours

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INTERVENTION LEVELS – GRAVEL ROADS INCLUDING UNSEALED URBAN ROADS					
Service Code	Item	Defect Levels when Intervention is Required	Cat	Target Rectification / Response Time	UOM
GPP	Pot Holes	Frequency of holes 75mm deep or 400mm diameter is equal to or greater than: ▪ Category 3 roads - 1% of road area in any 100m section; ▪ Category 2 roads – 5% of road area in any 250m section	4	No gravel Category 4	
			3	4 weeks	m^2
			2	12 weeks	m^2
			1	Annual	m^2
WR	Rutting	Rutting concentration for a length of road & average depth not exceeding 75mm: ▪ Category 3 roads - 5% of road area of $10m^2$ in any $100m^2$; ▪ Category 2 roads - 10% of road area of $50m^2$ in any $100m^2$	4	No gravel Category 4	
			3	4 weeks	m^2
			2	16 weeks (grader cycle)	m^2
			1	Annual	m^2
C	Corrugations	Corrugation concentration for a length of road & average depth not exceeding: ▪ Category 3 roads - 75mm for 10% of road area in any 100m length & within 30 m of an intersection; ▪ Category 2 roads - 75mm for 20% of road area in any 100m	4	No gravel Category 4	
			3	4 weeks	m^2
			2	16 weeks (grader cycle)	m^2
			1	Annual	m^2
SS	Slippery Surface	Any Part	4	No gravel Category 4	
			3	5 working days	m^2
			2	4 weeks	m^2
			1	4 weeks	m^2
SC	Surface Scour	Area if long or transverse scouring exceeds 75mm depth: ▪ Urban gravel roads 25 m^2 ▪ Category 3 rural roads 25 m^2 ▪ Category 2 rural roads 50 m^2	4	No gravel Category 4	
			3	5 working days	m^2
			2	2 weeks	m^2
			1	4 weeks	m^2
LOM	Loss of Material	Subgrade with 20% or more of area showing loss of material in any 100m length:	4	No gravel Category 4	
			3	2 working days	m^2
			2	5 working days	m^2
			1	2 weeks	m^2

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INTERVENTION LEVELS – GRAVEL ROADS INCLUDING UNSEALED URBAN ROADS					
Service Code	Item	Defect Levels when Intervention is Required	Cat	Target Rectification Response Time	Unit
GPP	**Pot Holes**	Frequency of holes 75mm deep or 400mm diameter is equal to or greater than: ▪ Category 3 roads - 1% of road area in any 100m section; ▪ Category 2 roads – 5% of road area in any 250m section	4	No gravel Category 4	
			3	4 weeks	m^2
			2	12 weeks	m^2
			1	Annual	m^2
WR	**Rutting**	Rutting concentration for a length of road & average depth not exceeding 75mm: ▪ Category 3 roads - 5% of road area of $10m^2$ in any $100m^2$; ▪ Category 2 roads - 10% of road area of $50m^2$ in any $100m^2$	4	No gravel Category 4	
			3	4 weeks	m^2
			2	16 weeks (grader cycle)	m^2
			1	Annual	m^2
C	**Corrugations**	Corrugation concentration for a length of road & average depth not exceeding: ▪ Category 3 roads - 75mm for 10% of road area in any 100m length & within 30 m of an intersection; ▪ Category 2 roads - 75mm for 20% of road area in any 100m	4	No gravel Category 4	
			3	4 weeks	m^2
			2	16 weeks (grader cycle)	m^2
			1	Annual	m^2
SS	**Slippery Surface**	Any Part	4	No gravel Category 4	
			3	5 working days	m^2
			2	4 weeks	m^2
			1	4 weeks	m^2
SC	**Surface Scour**	Area if long or transverse scouring exceeds 75mm depth: ▪ Urban gravel roads $25\ m^2$ ▪ Category 3 rural roads $25\ m^2$ ▪ Category 2 rural roads $50\ m^2$	4	No gravel Category 4	
			3	5 working days	m^2
			2	2 weeks	m^2
			1	4 weeks	m^2
LOM	**Loss of Material**	Subgrade with 20% or more of area showing loss of material in any 100m length:	4	No gravel Category 4	
			3	2 working days	m^2
			2	5 working days	m^2
			1	2 weeks	m^2

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INTERVENTION LEVELS – GRAVEL ROADS INCLUDING UNSEALED URBAN ROADS (Continued)					
Service Code	Item	Defect Levels when Intervention is Required	Cat	Target Rectification / Response Time	Unit
IH	**Isolate Hazards**	All hazards to be marked – devices Hazards Include flood, fires, storms, traffic accidents to ensure the safety of the public and protection of the asset.	4	No gravel Category 4	
			3	4 hours	hours
			2	4 hours	hours
			1	4 hours	hours
FD	**Foundation Defects**	Heaving or settlement of road surface area: ▪ Category 2 roads > 100mm deep or high for >5m²; ▪ Category 3 roads > 100mm deep or high for >10m²	4	No gravel Category 4	
			3	4 weeks	m²
			2	8 weeks	m²
			1	No action	m²
CC	**Culverts**	Waterway to be free, water build up less 50mm above I.L.	4	No gravel Category 4	
			3	Annually	m
			2	Annually	m
			1	As required	m
TDR	**Table, Mitre & Open Drains**	Covers all unlined open drains, catch drains, spoon drains, table drains and waterways that contribute to the structural integrity of the roadway. No build up - free to drain.	4	No gravel Category 4	
			3	Annually	m
			2	Annually	m
			1	As required	m

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Appendix H Risk Assessment for Roads and Footpaths

Defect Type	Level of Defect	Location	Risk Event & Potential Consequence	Consequence Rating	Road Cat.	Likelihood Ranking	Assessed Risk
Pothole	Beyond the point where intervention is required – maintenance is now a priority.	Urban (lower speeds)	Loss of control causing vehicle crash, serious injuries to several people	4 - Major	4	C - Possible	H
					3	D - Unlikely	H
					2	VH - Rare	M
					1	VH - Rare	M
		Rural (higher speeds)	Loss of control causing vehicle crash, multiple fatalities	5 - Catastrophic	4	C - Possible	VH
					3	C - Possible	H
					2	D - Unlikely	H
					1	D - Unlikely	M
		Urban (lower speeds)	Loss of control causing vehicle crash, minor injuries to several people	3 - Moderate	4	C - Possible	H
					3	D - Unlikely	M
					2	VH - Rare	L
					1	VH - Rare	L
		Rural (higher speeds)	Loss of control causing vehicle crash, serious injuries to several people	4 - Major	4	C - Possible	H
					3	C - Possible	H
					2	D - Unlikely	M
					1	D - Unlikely	L
	At intervention level	Urban (lower speeds)	Vehicle sustains damage	2 - Low	4	C - Possible	H
					3	C - Possible	M
					2	D - Unlikely	M
					1	VH - Rare	L
		Rural (higher speeds)	Vehicle sustains damage	2 - Low	4	D - Unlikely	H
					3	D - Unlikely	M
					2	C - Possible	M
					1	D - Unlikely	L

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Appendix H – Risk Assessment – Roads & Footpaths continued

Defect Type	Level of Defect	Location	Risk Event & Potential Consequence	Consequence Rating	Road Cat.	Likelihood Ranking	Assessed Risk
Edge Breaks, Drop offs, Wheel Ruts & Depressions, and Pavement Shoving	Beyond the point where intervention is required – maintenance is now a priority.	Urban (lower speeds)	Loss of control causing vehicle crash, serious injuries to several people	4 - Major	4	D - Unlikely	H
					3	D - Unlikely	M
					2	VH - Rare	M
					1	VH - Rare	L
		Rural (higher speeds)	Loss of control causing vehicle crash, multiple fatalities	5 - Catastrophic	4	C - Possible	VH
					3	C - Possible	H
					2	D - Unlikely	M
					1	D - Unlikely	M
		Urban (lower speeds)	Loss of control causing vehicle crash, minor injuries to several people	3 - Moderate	4	D - Unlikely	H
					3	D - Unlikely	M
					2	VH - Rare	L
					1	VH - Rare	L
		Rural (higher speeds)	Loss of control causing vehicle crash, serious injuries to several people	4 - Major	4	C - Possible	H
					3	C - Possible	H
					2	D - Unlikely	M
					1	D - Unlikely	L
	At intervention level	Urban (lower speeds)	Vehicle sustains damage	2 - Low	4	C - Possible	H
					3	C - Possible	M
					2	D - Unlikely	M
					1	VH - Rare	L
		Rural (higher speeds)	Vehicle sustains damage	2 - Low	4	B - Likely	H
					3	B - Likely	H
					2	C - Possible	M
					1	D - Unlikely	M
Crack Sealing	Risk is assessed as being the same whether at or beyond the Intervention Level	Urban (lower speeds)	Structural risk only	2 - Low	4	D - Unlikely	H
		Rural (higher speeds)	Structural risk only	2 - Low	4	D - Unlikely	H

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Appendix H – Risk Assessment – Roads & Footpaths continued

Defect Type	Level of Defect	Location	Risk Event & Potential Consequence	Consequence Rating	Road Cat.	Likelihood Ranking	Assessed Risk
Delamination	Risk is assessed as being the same whether at or beyond the Intervention Level	Urban (lower speeds)	Vehicle sustains damage	2 - Low	4	VH - Rare	M
		Rural (higher speeds)	Vehicle sustains damage	2 - Low	4	VH - Rare	M
Stripped Seals & Slick Surfaces	Risk is assessed as being the same whether at or beyond the Intervention Level	Urban (lower speeds)	Loss of control causing vehicle crash, serious injuries to several people	4 - Major	4	D - Unlikely	H
		Rural (higher speeds)	Loss of control causing vehicle crash, multiple fatalities	5 - Catastrophic	4	D - Unlikely	H
Bleeding Seals	Risk is assessed as being the same whether at or beyond the Intervention Level	Urban (lower speeds)	Loss of control causing vehicle crash, serious injuries to several people; also a public nuisance in urban areas	4 - Major	4	VH - Rare	M
		Rural (higher speeds)	Loss of control causing vehicle crash, serious injuries to several people	4 - Major	4	VH - Rare	M

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Appendix H – Risk Assessment – Roads & Footpaths continued

Defect Type	Level of Defect	Location	Risk Event & Potential Consequence	Consequence Rating	Road Cat.	Likelihood Ranking	Assessed Risk
Potholes, rutting and scouring	Beyond the point where intervention is required – maintenance is now a priority.	Urban (lower speeds)	Loss of control causing vehicle crash, serious injuries to several people	4 - Major	4	N/A	
					3	N/A	
					2	VH - Rare	M
					1	VH - Rare	L
		Rural (higher speeds)	Loss of control causing vehicle crash, multiple fatalities	5 - Catastrophic	4	C - Possible	H
					3	C - Possible	H
					2	D - Unlikely	M
					1	VH - Rare	M
		Urban (lower speeds)	Loss of control causing vehicle crash, minor injuries to several people	3 - Moderate	4	N/A	
					3	N/A	
					2	D - Unlikely	M
					1	D - Unlikely	L
		Rural (higher speeds)	Loss of control causing vehicle crash, serious injuries to several people	4 - Major	4	C - Possible	H
					3	C - Possible	H
					2	D - Unlikely	M
					1	VH - Rare	M
	At intervention level	Urban (lower speeds)	Vehicle sustains damage	2 - Low	4	N/A	
					3	N/A	
					2	D - Unlikely	M
					1	VH - Rare	L
		Rural (higher speeds)	Vehicle sustains damage	2 - Low	4	B - Likely	H
					3	B - Likely	H
					2	C - Possible	M
					1	D - Unlikely	L

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Appendix H – Risk Assessment – Roads & Footpaths continued

Defect Type	Level of Defect	Location	Risk Event & Potential Consequence	Consequence Rating	Cat.	Likelihood Ranking	Assessed Risk
Footpaths Edge lips, pavers dislocated, concrete bays raised or broken - where repairs can be undertaken by lip grinding	Risk is assessed as being the same whether at or beyond the Intervention Level	Urban	Person falls and sustains serious injury	3 - Moderate	3	A - Almost Certain	VH
					2	A - Almost Certain	VH
					1	B - Likely	H
Footpaths Pavers dislocated or missing, concrete bays cracked, raised or broken, asphalt lifted by roots, depressed, cracked or potholes - where minor works & repairs can be undertaken	Risk is assessed as being the same whether at or beyond the Intervention Level	Urban	Person falls and sustains serious injury	3 - Moderate	3	A - Almost Certain	VH
					2	A - Almost Certain	VH
					1	B - Likely	H

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Appendix I Projected Capital Works

- Road Pavement & Seal Improvement program (based on age, condition, & visual assessment)

Maloneys Road Score & Road Reconstruction Program	Reconstruct 2015-2016	2015-2016	Reconstruct 2021-2022	[redacted]	Urban Street Upgrade	Year
	Reconstruct 2016-2017	[redacted]	Reconstruct 2022-2023	2022-2023	K&G and Road Verge	[redacted]
	Reconstruct 2017-2018	[redacted]	Reconstruct 2023-2024	[redacted]	Not Programmed	[redacted]
	Reconstruct 2018-2019	2018-2019	Reconstruct 2024-2025	[redacted]	Remove From List	[redacted]
	Reconstruct 2019-2020	[redacted]	Reconstruct 2025-2026	2025-2026	Reshape Road	[redacted]
	Reconstruct 2020-2021	[redacted]		[redacted]		

I.D. No.	STREET NAME 969878	FROM Street Name or Description	Dist. m	TO Street Name or Description	Dist. m	O/A Wid m	Total Pav Length	O/A Cond 0-10	Type	Comments	Year Programmed
1138	Smith St	Abel Tasman Av.	0	Labour	140	4.8	182	6.0	Street	Changed to footpath	[redacted]
1561	Connorville Rd	Macquarie River Rd	0	Gate	1,105	3.3	1,105	8.0		PRIVATE ROAD	[redacted]
927	Newry St Ext of Tanne	Tannery	0	End	500	5.5	500	8.0	Rural	Take off list .Fenced off	[redacted]
116	Bellevue	00 Midlands Hwy	2,660	Seal Change	3,210	4.2	550	8.0	Rural	Low Usage	[redacted]
1189	Story's Creek Rd	19.87 Bridge Seal	20,430	Bridge - Storys Ck	21,275	4.0	845	8.0	Rural	Low Usage	[redacted]
951	Nivelle St	Badajos St Fence Lin	0	End of Seal	263	3.8	263	7.0	Street	Low Usage	[redacted]
1208	The Stock Route	Saundridge St	0	Seal Change	85	4.6	85	7.0	Street	Low Usage	[redacted]
109	Bedford St	Start of Seal	212	Franklin	269	2.4	57	7.0	Street	Low Usage	[redacted]
307	Conara Rd	Bend Right	295	Start K&C	900	5.7	605	7.0	Rural	Low Usage	[redacted]
310	Conara Rd	Gate	1,495	End	1,626	5.6	131	7.0	Rural	Low Usage	[redacted]
184	Bridge St Campb T	Clare	2,102	End of Seal	2,270	2.6	168	7.0	Street	Low Usage	[redacted]
1071	Rossarden Rd	Pole No 161	3,950	Culvert	5,570	5.0	1,620	7.0	Rural	Low Usage	[redacted]
1573	Gay St	Goderich St	151	Howick St	250	4.8	99	8.0	Street	Low Usage	[redacted]
1190	Story's Creek Rd	Bridge - Storys Ck Bri	21,275	21.9 Old Storys Ck	23,020	5.0	1,745	7.0	Rural	Low Usage	[redacted]
492	Glenelg St	Pedder St BOK	0	Church	285	4.5	285	6.0	Street	Reconstructed 2014-2015	Completed
923	New St Campb. T	M'Lands H'Way	0	Leake St	227	13.5	234	8.0	Street	Tree Roots .Maintence Required	[redacted]
1399	Wilmores La	00 Cressy Main Rd	1,101	Seal Change	1,295	5.0	194	6.0	Rural	Reconstruct Section /Complete	2015-2016
1400	Wilmores La	00 Cressy Main Rd	1,295	Loading Ramp	2,690	5.6	1,395	8.0	Rural	Reconstruct /Complete	2015-2016
1401	Wilmores La	Loading Ramp	2,690	Seal Change	3,808	5.7	1,118	6.0	Rural	Reconstruct /Complete	2015-2016
361	Delmont	00 Maquarie River Rd	1,800	Seal Change	2,485	5.6	685	8.0	Rural	Reconstruct /Complete	2015-2016
364	Delmont	00 Maquarie River Rd	3,910	Seal Change	4,920	5.2	1,010	8.0	Rural	Reconstruct /Complete	2015-2016
755	Macquarie River Rd	Seal Change	10,680	11.29 Macquarie St	11,675	5.6	995	6.0	Rural	Reconstruct /Complete	2015-2016
460	Gatenby St	Spencers Lane	0	Macquarie	292	9.2	298	4.0	Street	K&G Section East side/Complete	[redacted]
493	Glenelg St	Church St	285	Queen	640	4.5	355	6.0	Street	Reconstruct /Complete	2015-2016
156	Bond St Campb. T	Midlands Hwe	0	Grant St	289	6.0	291	4.0	Street	K&G Section Sth side/Complete	[redacted]

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I.D. No.	STREET NAME 966978	FROM Street Name or Description	Dist. m	TO Street Name or Description	Dist. m	O/A Wid m	Total Pav Length	O/A Cond 0-10	Type	Comments	Year Programmed
421	Eskley Perth Nursing H	Seal Change	185	Home Ent.	1,065	4.7	880	7.0	Rural	Tree Root Concerns. Road Repairs Carried Out	2015-2016
774	Macquarie River Rd	00 Poatina Hwy	32,940	Seal Change	33,865	5.1	925	8.0	Rural	Consider Reconstruction	
1548	Macquarie River Rd	Seal Change	33,865	Bridge	34,215	4.8	350	4.0	Rural	Consider Reconstruction	
1412	Woolmers La	00 Midlands Hwy	3,000	5.35 Point Rd	4,490	6.2	1,490	6.0	Rural	Consider Reconstruction	
1413	Woolmers La	00 Midlands Hwy	4,490	Panshager	5,800	6.1	1,310	6.0	Rural	Consider Reconstruction	
933	Nile Rd	00 High St Evandale	7,300	Bryants	8,085	6.9	785	6.0	Rural	Consider Reconstruction	
225	Burghley St Longford	High St	155	Pultney St	380	8.9	215	5.0	Street	Consider Street Reconstruction	
226	Burghley St Longford	Pultney St	380	Malcombe St	609	8.9	236	6.0	Street	Consider Street Reconstruction	2016-2017
561	High St Ross	Esplanade	0	Church St	111	4.2	111	6.0	Street	Program Reconstruction	2016-2017
180	Bridge St Campb T	Church	782	Midlands Hwy	920	5.1	138	3.0	Street	K&g,Carparking and Street Rec	2016-2017
722	Logan Rd	00 Huxtable St Evend	2,685	Seal Change	3,490	5.3	805	5.0	Rural	Urban k&g and road verge	2016-2017
1257	Torlesse St	WBL No 1	0	Leake St	108	4.4	108	3.0	Street	Urban k&g and road verge	2016-2017
684	Leake St	Mason St	0	Torlesse St	232	5.4	244	3.0	Street	Urban k&g and road verge	2016-2017
852	Mason St Campb T	Leake St	213	Midlands Hwy	429	5.9	210	4.0	Street	Urban k&g and road verge	2016-2017
333	Cromwell Street	Phillip Street		Nelson Place				2.0	Street	Urban k&g and road verge	2016-2017
935 +	Nile Rd Township	00 High St Evandale	10,385	Start of Kerb Left	10,585	7.2	200	6.0	Rural	Urban k&g and road verge	2016-2017
1411	Woolmers La	00 Midlands Hwy	730	Property Ent.	3,000	6.2	2,270	6.0	Rural	Consider Reconstruction	
99	Barton Rd	00 Midlands Hwy	8,090	Seal Change	9,050	4.9	935	6.0	Rural	Consider Reconstruction	
100	Barton Rd	00 Midlands Hwy	9,050	Pave Change	10,230	4.8	1,180	6.0	Rural	Consider Reconstruction	
105	Barton Rd	00 Midlands Hwy	11,400	Seal Change	13,795	5.3	2,395	6.0	Rural	Urban k&g and road verge	
559&560	High Street Long	Burghley		No 43					Street	Urban k&g and road One side	2017-2018
235	Carins St	Union St	0	End	200	6.0	203	6.0	Street	Urban k&g and road Part Sub	2017-2018
37	Arthur St Perth	Rail X	565	Clarence St	832	8.3	267	6.0	Street	Consider Reconstruction	2017-2018
579	Hobhouse St	Catherine St	897	Burghley St	1,064	10.4	152	6.0	Street	Consider Reconstruction	2017-2018
999	Paton Street	00 Burghley	0	End	151		151		Street	Urban Street Upgrade	2017-2018
	Youl Road	Subject to funding by State Growth the owners in conjunction with By Pass negotiations								Urban k&g and road reconst	?
132	Bishopsbourne Rd	00 Illawarra	7,375	Seal Change	8,520	5.8	1,145	5.0	Rural	Consider Reconstruction	2018-2019
133	Bishopsbourne Rd	00 Illawarra	8,520	9.08 Armstrongs	9,980	5.3	460	5.0	Rural	Consider Reconstruction	2018-2019
525	Green Rises	Change	9,600	Seal Change	10,590	5.0	990	6.0	Rural	Consider Reconstruction	2018-2019
931	Nile Rd	00 High St Evandale	4,845	5.10 Clarendon L R	5,705	6.8	860	6.0	Rural	Consider Reconstruction	2018-2019
1033	Powranna Rd	00 Midlands Hwy	14,010	Pave Change	15,020	6.0	1,010	6.0	Rural	Consider Reconstruction	2018-2019
1450	Valleyfield Rd	Barton	0	Pave Change	200	5.1	200	6.0	Rural	Consider Reconstruction	2018-2019
1322	Valleyfield Rd	00 Barton Rd	8,505	Seal Change	10,410	5.0	1,905	6.0	Rural	Consider Reconstruction	2018-2019
822	Malcombe St	Wellington St	0	Laycock	130	6.2	136	6.0	Street	Urban Street Upgrade	2018-2019

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I.D. No.	STREET NAME 965978	FROM Street Name or Description	Dist. m	TO Street Name or Description	Dist. m	O/A Wid m	Total Pav Length	O/A Cond 0-10	Type	Comments	Year Programmed
574	Hobhouse St	End Path	168	Laycock St	245	8.0	68	3.0	Street	Urban Street Upgrade	2018-2019
232	Burnett St	Pultney St	0	Change	82	6.2	87	2.0	Street	K&G and Road Verge	[redacted]
550	High St Evandale	Barclay	444	Russell	812	3.2	368	4.0	Street	K&G and Road Verge	[redacted]
1011	Phillip St	Cromwell St	256	Seal Change	413	5.8	164	3.0	Street	K&G and Road Verge	[redacted]
1012	Phillip St	Seal Change	413	Youl Main Rd	520	6.0	107	3.0	Street	K&G and Road Verge	[redacted]
540	Herberts Rd	Hobhouse St	0	Bulwer	237	5.6	226	2.0	Street	K&G and Road Verge	[redacted]
104	Barton Rd	00 Midlands Hwy	10,890	Seal Change	11,400	5.8	510	5.0	Rural	Consider Reconstruction	[redacted]
106	Barton Rd	00 Midlands Hwy	13,795	Macquarie	14,900	5.3	1,105	5.0	Rural	Consider Reconstruction	[redacted]
1118	Saundridge Rd	Bridge	11,530	Bridge	13,235	5.2	1,705	6.0	Rural	Consider Reconstruction	[redacted]
1108	Saundridge Rd	Change	1,750	Seal Change	4,205	6.5	2,455	6.0	Rural	Consider Reconstruction	[redacted]
320	Cox St	Nile EBL	0	End	259	6.4	267	4.0	Street	K&G and full Road Construction	2019-2020
197	Bridge St South	Montagu	256	Mason	515	4.8	269	2.0	Street	K&G and Road Verge	[redacted]
213	Bulwer St	Wellington St	0	Seal Change	172	8.2	177	2.0	Street	K&G and Road Verge	[redacted]
573	Hobhouse St	Wellington St	0	End Path	168	8.0	174	2.0	Street	K&G and Road Verge	[redacted]
574	Hobhouse St	End Path	168	Laycock	245	8.0	77	3.0	Street	K&G and Road Verge	[redacted]
681	Laycock St	Bulwer	0	Hobhouse St	237	7.3	244	3.0	Street	K&G and Road Verge	[redacted]
1100	Russell St	High St	0	Junction	381	9.3	385	2.0	Street	K&G and Road Verge	[redacted]
1101	Russell St	Junction	381	Huxtable EBL	487	9.0	113	2.0	Street	K&G and Road Verge	[redacted]
97	Barton Rd	00 Midlands Hwy	6,120	Seal Change	6,600	6.4	615	6.0	Rural	Check Asset No	[redacted]
98	Barton Rd	00 Midlands Hwy	6,600	Seal Change	8,090	6.4	1,780	6.0	Rural	Consider Reconstruction	[redacted]
495	Glenesk Rd	00 Nile Rd	0	Seal Change	970	5.7	970	6.0	Rural	Consider Reconstruction	[redacted]
496	Glenesk Rd	00 Nile Rd	970	Seal Change	2,525	5.2	1,555	6.0	Rural	Consider Reconstruction	[redacted]
532	Haselwood	0Brumby Street	0	Marlborough	1,105		1,180	6.0	Rural	Consider Reconstruction	[redacted]
664	Lake River Rd	00 Macquarie River	7,265	Seal Change	8,395	5.0	1,130	6.0	Rural	Consider Reconstruction	[redacted]
665	Lake River Rd	00 Macquarie River	8,395	Seal Change	9,050	5.8	655	6.0	Rural	Consider Reconstruction	[redacted]
666	Lake River Rd	00 Macquarie River	9,050	9.70 Glen	9,780	5.9	770	5.0	Rural	Consider Reconstruction	[redacted]
851	Mason St Campb T	Davidson St	0	Leake St	213	4.9	228	4.0	Street	K&G and Road Verge	[redacted]
221	Bulwer St	Burghley	1,183	BRIDGE	1,373	6.1	190	2.0	Street	K&G and Road Verge	[redacted]
50	Ashby Rd	00 Midlands Hwy	5,765	Seal Change	6,705	5.3	940	6.0	Rural	Consider Reconstruction	[redacted]
59	Auburn Rd	00 Midlands Hwy	2,390	Culvert	2,780	4.5	390	6.0	Rural	Consider Reconstruction	[redacted]
756	Macquarie River Rd	11.29 Macquarie Setl	11,675	Seal Change	12,300	5.4	625	4.0	Rural	Consider Reconstruction	[redacted]
757	Macquarie River Rd	Seal Change	12,300	13.70 Darlington Pa	13,790	5.3	1,490	4.0	Rural	Consider Reconstruction	[redacted]
4	Adelaide St	Adelaide SBL	0	Seal Change	40	4.8	40	6.0	Street	Urban Street Upgrade	2021-2022
5	Adelaide St	Seal Change	40	End of Seal	170	4.5	130	4.0	Street	Urban Street Upgrade	2021-2022
197	Bridge St Sth	Montague to North		Adelaide				2.0	Street	Urban Street Upgrade	2021-2022

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I.D. No.	STREET NAME 965978	FROM Street Name or Description	Dist. m	TO Street Name or Description	Dist. m	O/A Wid m	Total Pav Length	O/A Cond 0-10	Type	Comments	Year Programmed
194	Bridge St South	Adelaide St	0	Broad St	136	5.1	136	4.0	Street	Urban Street Upgrade	2021-2022
195	Bridge St South	Broad St	136	Seal Change	218	5.0	82	5.0	Street	Urban Street Upgrade	2021-2022
196	Bridge St South	Seal Change	218	Montagu	256	7.9	38	3.0	Street	Urban Street Upgrade	2021-2022
368	Devon Hills	00 Midlands Hwy	0	Christine	1,105	6.8	1,105	5.0	Street	Urban Street Upgrade	2021-2022
369	Devon Hills	00 Midlands Hwy	1,105	Loop Rd	2,235	5.9	1,130	6.0	Street	Urban Street Upgrade	2021-2022
370	Devon Hills	00 Midlands Hwy	2,235	Seal Change	3,345	5.9	1,110	6.0	Street	Urban Street Upgrade	2021-2022
13	Archer Street	Wilson	215	William	342		132	2.0	Street	K&G and Road Verge	2021-2022
1387	William St	Archer	0	Cressy Road	153		153	1.0	Street	K&G and Road Verge	2021-2022
536	Hay St	Park	370	Seal Change	500	6.0	130	2.0	Street	K&G and Road Verge	2021-2022
984	Park St Longford	Howick St	245	Hay St	319	9.0	62	3.0	Street	K&G and Road Verge	2021-2022
131	Bishopsbourne Rd	00 Illawarra	5,080	Rail X	7,375	5.6	2,295	5.0	Rural	Consider Reconstruction	2022-2023
340	Deddington	00 Nile Road	1,233	Seal Change	3,075	5.4	1,842	6.0	Rural	Consider Reconstruction	2022-2023
341	Deddington	00 Nile Road	3,075	Seal Change	4,770	5.5	1,695	6.0	Rural	Consider Reconstruction	2022-2023
1006	Perth Mill Rd	00 Evandale Rd	0	Range Rd	1,660	6.2	1,660	6.0	Rural	Consider Reconstruction	2022-2023
8	Anstey St	Lewis	0	Cracroft St	314	5.0	321	4.0	Street	Urban Street Upgrade plus k&g	2022-2023
250	Cemetery Rd	Drummond St	0	End of Bowl	247	4.9	254	4.0	Street	Urban Street Upgrade plus k&g	2022-2023
327	Cracroft St	Home	957	Wellington	1,278	5.7	334	4.0	Street	Urban Street Upgrade plus k&g	2022-2023
978	Panshanger Rd	00 Woolmers	520	Pave Change	850	6.0	330	6.0	Rural	Consider Reconstruction	
979	Panshanger Rd	00 Woolmers	850	Seal Change	2,140	6.0	1,290	6.0	Rural	Consider Reconstruction	
849	Marlborough St Longfo	00 William St	5,345	Chatsworth	6,125	5.8	780	6.0	Street	Program Reconstruction	
1379	White Hills Rd	Seal Change	1,500	Dalmess	2,350	8.4	850	6.0	Rural	Minor Work Required	
295	Clarendon Stat.	00 Nile Road	0	Seal Change	1,740	5.7	1,740	6.0	Rural	Reconsider	
1047	Range Rd	Perth Mill Road	0	End of Circuit	1,115	5.5	1,115	6.0	Rural	Program Reconstruction	
905	Murfett St	Saundridge St	0	Seal Change	102	5.6	108	4.0	Street	Reconstruct ??	2023-2024
785	Macquarie St Cressy	Galenby St	108	Condition Change	250	5.7	137	6.0	Street	To be considered	2023-2024
1124	Saundridge St East	Main St	0	End K&C	164	7.2	168	3.0	Street	Urban Street Upgrade plus k&g	2023-2024
275	Church St Pt 2	Glenelg St	0	West St	630	5.0	648	5.0	Street	Urban Street Upgrade plus k&g	2023-2024
569	Hobart Rd	Seal Change	340	1.70 Marchington	1,665	11.4	1,325	5.0	Rural	Consider Reconstruction	
570	Hobart Rd	1.70 Marchington	1,665	Seal Change	2,675	12.5	1,010	5.0	Rural	Consider Reconstruction	
1023	Powranna Rd	00 Midlands Hwy	3,340	Seal Change	4,860	6.2	1,520	5.0	Rural	Consider Reconstruction	
1034	Powranna Rd	00 Midlands Hwy	15,020	16.76 Barlington	16,860	5.9	1,840	6.0	Rural	Consider Reconstruction	
1108	Saundridge Rd	Change	1,750	Condition Change	4,205	5.5	2,455	6.0	Rural	Consider Reconstruction	
1080	Royal George	00 St Pauls SBL	720	Seal Change	2,065	5.6	1,345	6.0	Rural	Consider Reconstruction	2025-2026
1086	Royal George	00 St Pauls SBL	8,100	Seal Change	8,800	5.3	700	6.0	Rural	Consider Reconstruction	2025-2026
1087	Royal George	00 St Pauls SBL	8,800	Old Seal Change	9,750	5.3	950	6.0	Rural	Consider Reconstruction	2025-2026

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I.D. No.	STREET NAME 965978	FROM Street Name or Description	Dist. m	TO Street Name or Description	Dist. m	O/A Wid m	Total Pav Length	O/A Cond 0-10	Type	Comments	Year Programmed
1116	Saundridge Rd	Blackwod Ck	9,705	Bridge	10,350	5.5	645	5.0	Rural	Consider Reconstruction	2025-2026
1119	Saundridge Rd	Bridge	13,235	Poatina	14,050	5.1	985	5.0	Rural	Consider Reconstruction	2025-2026
614	Isis Rd	00 Macquarie River	20	Seal Change	835	4.8	815	6.0	Rural	Consider Reconstruction	2025-2026
616	Isis Rd	00 Macquarie River	1,520	Old Seal Change	3,285	4.8	1,765	6.0	Rural	Consider Reconstruction	2025-2026
93	Barton Rd	00 Midlands Hwy	0	Old Seal Change	1,670	5.2	1,670	5.0	Rural	Consider Reconstruction	2026-2027
94	Barton Rd	00 Midlands Hwy	1,870	Old Seal Change	2,670	5.2	1,000	5.0	Rural	Consider Reconstruction	2026-2027
95	Barton Rd	00 Midlands Hwy	2,670	Seal Change	3,625	5.2	955	5.0	Rural	Consider Reconstruction	2026-2027
1414	Woolmers La	00 Midlands Hwy	5,800	Seal Change	6,100	6.0	300	5.0	Rural	Consider Reconstruction	2026-2027
1419	Woolmers La	00 Midlands Hwy	9,560	Cracroft	9,930	5.5	370	5.0	Rural	Consider Reconstruction	2026-2027
129	Bishopsbourne Rd	00 Illawarra	2,680	Seal Change	3,675	5.6	995	5.0	Rural	Consider Reconstruction	2026-2027
928	Nile Rd	00 High St Evandale	845	Seal Change	1,845	6.8	1,000	5.0	Rural	Consider Reconstruction	2026-2027
929	Nile Rd	00 High St Evandale	1,845	Seal Change	3,475	6.8	1,630	5.0	Rural	Consider Reconstruction	2026-2027
930	Nile Rd	00 High St Evandale	3,475	3.84 Bridge	4,845	6.8	1,370	5.0	Rural	Consider Reconstruction	2026-2027
934	Nile Rd	00 High St Evandale	8,085	Seal Change	10,385	7.2	2,300	5.0	Rural	Consider Reconstruction	2026-2027
1571	Nile Rd	Seal Change	10,680	Bridge	10,890	6.0	210	5.0	Rural	Consider Reconstruction	2026-2027
940	Nile Rd	00 High St Evandale	12,480	Seal Change	13,665	5.2	1,185	5.0	Rural	Consider Reconstruction	2026-2027
942	Nile Rd	00 High St Evandale	14,125	14.80 Bridge	15,775	5.6	1,650	5.0	Rural	Consider Reconstruction	2026-2027
943	Nile Rd	00 High St Evandale	15,775	18.53 Fernhill	18,355	5.8	2,580	5.0	Rural	Consider Reconstruction	2026-2027
658	Lake River Rd	00 Macquarie River	2,555	Seal Change	3,460	5.0	905	5.0	Rural	Consider Reconstruction	2026-2027
663	Lake River Rd	00 Macquarie River	6,600	Seal Change	7,265	6.0	665	5.0	Rural	Consider Reconstruction	2026-2027
50	Ashby Rd	00 Midlands Hwy	5,765	Seal Change	6,705	5.3	940	6.0	Rural	Consider Reconstruction	2026-2027

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Footpath Improvement Program

DRAFT DOCUMENT (Subject to changes) Footpath Replacement Program 2015/2016

Seg I.D. No.	ROAD OR STREET NAME	Segment FROM Street Name or Description	Dist. m	TO Street Name or Description	Dist. m	Loc	Footpath Length Metres	Width metres	Area sqm	Driveway Square Metres	Side of street	Rep With	SM REC	Rate Council	Comments Relating To Footpath	F/P Priority	REPLACE YEAR	REPLACEMENT COST Council to Fill in
[redacted]																		$ 13,524.00
[redacted]																		$ 17,088.00
[redacted]																		$ 28,590.50
[redacted]																		$ 1,802.00
413	Fairlough Street	Midlands Hwy		Doctors		Perth	114	1.80	205		West	Conc	New		Plus 2 PC	5	2015-2016	$ 24,000.00
[redacted]																		$ 25,256.40
[redacted]																		$ 12,391.80
[redacted]																		$ 37,848.00
[redacted]																		522,327.90
[redacted]																		$ 23,483.50
[redacted]																		$ 17,492.17
498	Glenelg Street	Church	285	Cowan	640	Camp	355	1.80	516	nil	East			$112.08	516 sm Footpath 61.3 sm driveway	13		$ 64,724.00
37	Arthur Street	Fairlough	565	Clarence	832	Perth	250	1.60	530	100	Sth ?	Conc	New		To be seperately quoted when required	14	2015-2016	$ 110,000.00
473	George Street	Fairlough Street	0	End Kerb	130	Perth	130	1.80	234		South	Conc	New			16	2015-2016	$ 24,000.00
New	St Georges Square	Smith Street		Tasman Ave	130	Long	130	2.50	325 +			Conc	New		Plus section in St Georges Square	17	2015-2016	$ 50,000.00
1131	Wellington St	No 14	1,091	High	1,201	Long	110	1.80	198	20	West	Conc	Rep		Near RSL	18	2015-2016	$ 25,000.00
1252	Wellington Street			Swan Ave		Long	20	1.80	36		East	Conc	New		Plus 2 PC		2015-2016	$ 5,500.00
1345	Wellington Street	Cnr Cressy Rd		Archer		Long	75	3.00	225	Nil	West	Exp Ag	Replace				2015-2016	$ 30,000

DRAFT DOCUMENT (Subject to changes) Footpath Replacement Program 2016/2017 to 2017/2018

Seg I.D. No.	ROAD OR STREET NAME	Segment Footpath Details All Segments FROM Street Name or Description	Dist. m	TO Street Name or Description	Dist. m	Loc	Footpath Length Metres	Width metres	Area sqm	Driveway Square Metres	Side of street	Rep With	Str REC	Footpath General $/m Rate Council	Comments Relating To Footpath	F/P Priority	REPLACE YEAR	REPLACEMENT COST Council to Fill In
1358	Wellington	Hobhouse	2,022	Bulwer	2,278	Long	240	1.80	432	144	West	Conc	Replace	$104	Reduce by section done		2016-2017	$ 63,360.00
107	Goderich	William	0	Archer	79	Long	80	1.80	144		East	Conc	New	$104	Near Boundary.Not Urgent .After private driveway reconstructe		2016-2017	$ 17,000.00
785 &786	Main Street Cressy	Sth B No 134	195	No 120	370	Cressy	175	1.50	330	66	West	Conc	Rep	$108	66 sm driveways		2016-2017	$ 38,000.00
794	Main Street	No 120	370	Bus Park	485	Cressy	115	1.50	173		West	Conc	Rep	$108			2016-2017	$ 22,000.00
796	Main Street	Newsagent	880	Church	947	Cressy	67	1.50	101	20	East		Rep	$108	20 sm driveway		2016-2017	$ 15,000.00
1143	Smith St	Bowick	873	Hay St	955	Long	147	1.80	264		North	Conc	New	$104			2016-2017	$ 35,000.00
823	Malcombe	Laycock	130	Marlborough	434	Long	285	1.80	530	50	North	Conc	New	$104			2016-2017	$ 79,000.00
1944	Queen	Bridge Street	191	Glenelg Street	365	Camp	172	1.80	310	207		Conc	New	$117			2016-2017	$ 49,000.00
1952	Glenelg Street	Peddar	0	Church	285	Camp	218	1.80	513	?		Conc	New	$117			2016-2017	$ 80,000.00
																		$ 360,360.00
	Barclay Street	Macquarie	?	Leopold	?	Evan		?			South				Requested by Richard Goss		2017-2018	
353	High Street	Collins		End of kerb	1.6	Evan					Asphalt		Rep	$108	To be considered		2017-2018	$ 40,000.00
350	High St	Barclay St	444	11A	804	Evan	160	1.80	288		East	Exp Agg	Upgrade	$140	Exposed Aggregate Plus 2 PC		2017-2018	$ 40,320.00
824	Malcombe	Marlborough	434	Pakenham	806	Long	172	1.80	309	36	North		New	$108			2017-2018	$ 37,260.00
825	Malcombe	Packenham	806	Catherine	735	Long	75	1.80	135	18	North		New	$108			2017-2018	$ 16,524.00
827	Malcombe	Catherine	794	Burghley	957	Long	160	1.80	288	70	North		New	$108			2017-2018	$ 38,664.00
	Smith	Hay		Goderich		Long	85	1.80	117	12	North		New	$108			2017-2018	$ 13,932.00
378	Pulmey	Marlborough	319	Packenham	490	Long	145	1.80	261	33	North	Conc	New	$108			2017-2018	$ 31,752.00
378	Pulmey	Catherine	667	Burghley	840	Long	180	1.80	288	58	North	Conc	50/50	$108			2017-2018	$ 35,208.00
378	Pulmey	Wellington	0	Marlborough	312	Long	312	1.80	558	84	North	Conc	New	$108	Sth Side .Near Kerb		2017-2018	$ 67,176.00
																		$ 358,636.00
797	Main Street	Church St	220	Hotel	1,118		198	1.50	294		West		Rep	$116			2018-2019	$ 34,104.00
797	Main Street	Sth Of Hotel	1,136	Nth Of Hotel	1,170		54	1.50	81		West		Rep	$116			2018-2019	$ 9,396.00
797	Main Street	Nth Of Hotel	1,170	King Street	1,214		44	1.50	66		West		Rep	$116			2018-2019	$ 7,656.00
796	Main Street	Saundridge	633	Church	947	Cressy	298	1.50	500	72	West	Conc	Rep	$116	Includes 12 driveways		2018-2019	$ 66,352.00
334	Hay	Burghley	0	Smith	182	Long	153	1.80	300	60	East	Conc	New	$112	Near Boundary .Not Urgent.Wide Road Low Traffic		2018-2019	$ 39,200.00
974 973	Packenham street	Pulmey St	515	Malcombe	735	Long	220	1.80	396	60	East		New	$112			2018-2019	$ 51,072.00
976	Packenham street	Malcombe St	745	Hobhouse St	966	Long	220	1.80	396	60	East		New	$112			2018-2019	$ 51,072.00
977	Packenham street	Hobhouse	966	Bulwer	1,102	Long	220	1.80	396	108	East		New	$112			2018-2019	$ 56,448.00
327	Burghley	Malcombe St	609	Hobhouse St	835	Long	120	1.80	216	Nil	West		New	$112			2018-2019	$ 24,192.00
	Yonl Road	Edward St	0	Phillip St	374	Path	374	1.80	673		Sth	Conc	New	$112	Near property boundary		2018-2019	$ 100,000.00
																		$ 439,492.00

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DRAFT DOCUMENT (Subject to changes) Footpath Replacement Program 2019/2020 to 2022/2023

Seg I.D. No.	ROAD OR STREET NAME	Segment FROM Street Name or Description	FROM Dist. m	TO Street Name or Description	TO Dist. m	Loc	Footpath Details All Segments: Footpath Length Metres	Width metres	Area sqm	Driveway Square Metres	Side of street	Rep With	SM REC	sm Rate Council	Footpath General Comments Relating To Footpath	F/P Priority	REPLACE YEAR	REPLACEMENT COST Council to Fill In
784	Main Street	No 133	275		438		143	1.50	215	80	East		Rep	$120			2019-2020	$ 35,400.00
795	Main Street		490	Saundridge	633		143	1.80	215	100	East		Rep	$120			2019-2020	$ 37,800.00
1611	Phillip St	Cromwell	258	Seal Change	413	Perth	157	1.80	283	Nil	Nth	Conc	New	$116			2019-2020	$ 32,828.00
113	Phillip St	Seal Change	413	Youl Rd	520	Perth	107	1.80	193	Nil	Nth	Conc	New	$116			2019-2020	$ 22,388.00
38 & 39	Arthur Street	Clarence St		Sandlay			120	1.80	216	64	Sth		New	$116			2019-2020	$ 32,480.00
176	Bridge	Esplanade	0	King	252	Camp	270	1.80	486	286 seal	East	Conc	New	$132	Plus 8 drives 10.8 x 3.3	13	2019-2020	$ 80,000.00
228	Burghley	Hobhouse	835	Bulwer	1,074	Long	228	1.80	396	72	East		New	$116			2019-2020	$ 54,288.00
227	Burghley	No 52		Hobhouse		125		1.80	225		West		New	$116			2019-2020	$ 26,100.00
355	High St Longford	Marlborough St	205	Packenham St	378	Long	160	1.80	288	Nil	Nth	Conc	Rep	$116			2019-2020	$ 33,408.00
356	High St Longford	Packenham St	378	Catherine St	547	Long	169	1.80	304	4	Nth	Conc	Rep	$116			2019-2020	$ 35,728.00
677	Latour	Lyttleton	0	Archer	122	Long	110	1.80	198		West		New	$116			2019-2020	$ 22,968.00
678	Latour	Archer	122	Smith	274		152	1.80	274	40				$116			2019-2020	$ 36,424.00
																		$ 390,420.00
458	Frederick street	Scone St	705	Clarence St	951	Perth	200	1.80	360	20	Nth		Replace	$120			2020-2021	$ 45,600.00
179	Hobhouse St	Catherine St	597	Burghley st	1,064	Long	160	1.80	288	72	Nth		New	$120			2019-2020	$ 43,200.00
178	Hobhouse St	Pakenham	720	Catherine St	897	Long	170	1.80	306	14	Nth		New	$120			2019-2020	$ 38,400.00
176	Hobhouse St	No 34	369	Marlborough	549	Long	180	1.80	324	70	Nth		New	$120			2019-2020	$ 47,280.00
577	Hobhouse	Marlborough	549	Pakenham	720	Long	171	1.80	308					$120			2019-2020	$ 36,960.00
1358	Wellington	Hobhouse	2,022	Bulwer	2,278	Perth	240	1.80	432	144	West		Replace	$120			2020-2021	$ 69,120.00
531	Hay St	Smith	162	park	370	Perth	190	1.80	342	12	East		New	$120			2020-2021	$ 42,480.00
459	Frederick street	Scone St	705	Clarence St	951	Perth	200	1.80	360	20	Nth		Rep	$120			2020-2021	$ 45,600.00
																		$ 368,640.00
791	Main Street	Spencers Lane	1,234	Macquarie St	1,533	Cressy	300	1.50	450	84	East	Conc		$130			2021-2022	$ 69,420.00
318	Bulwer	Wellington	0	Seal Change	172		172	1.80	309	49	South	Conc	New	$125			2021-2022	$ 44,625.00
319	Bulwer	Seal Change	172	Laycock	368		196	1.80	352	40	South	Conc	New	$125			2021-2022	$ 49,000.00
317	Bulwer	Laycock	368	Stocker	426		58	1.80	104	52	South	Conc	New	$125			2021-2022	$ 19,500.00
316	Bulwer	Stocker	426	Marlborough	674		248	1.80	446	80	South	Conc	New	$125			2021-2022	$ 65,750.00
220	Bulwer	Catherine	1,031	Burghley	1,182		152	1.80	273	100	South	Conc	New	$125			2021-2022	$ 46,625.00
685	Laycock	No 14		Malcombe			60	1.80	108	Nil	West	Conc	New	$125			2021-2022	$ 13,500.00
680	Laycock	Malcombe		No 20 A			70	1.80	126	Nil	West	Conc	New	$125			2021-2022	$ 15,750.00
682	Laycock	Hobhouse		Bulwer			220	1.80	396	Nil	West	Conc	New	$125			2021-2022	$ 49,500.00
																		$ 373,670.00
792	Main Street	Service Station	857	Spencers Lane	1,200	Cressy	343	1.50	515	210	East	Conc		$135	Inclus das 35sm driveways		2022-2023	$ 97,875.00
1479	Marlborough	Pulney	597	Malcombe	925	Perth	220	1.80	396	40	West		Replace	$130			2022-2023	$ 56,680.00
1472	Marlborough	Malcombe	925	Hobhouse	1,044	Perth	219	1.80	394	50	West		Replace	$130			2022-2023	$ 57,720.00
423	Malcombe	Wellington	0	Laycock	130	Long	130	1.80	234	Nil	North	Conc	New	$130			2022-2023	$ 30,420.00
679	Latour	Archer	122	Smith	285	Long	120	1.80	216		West	Conc	New	$130	West side Near Kerb		2022-2023	$ 28,080.00
1139	Smith	Latour	140	Wellington	295	Long	120	1.80	216	50	South	Conc	New	$130	Sth side Near Kerb		2022-2023	$ 34,580.00
841	King Street	Cressy road	0	Bend	109		109	1.50	163				Replace	$135			2022-2023	$ 22,005.00
842	King Street	Bend	109	Exist Conc	298		189	1.50	284				Replace	$135			2022-2023	$ 38,340.00
																		$ 365,700.00

DRAFT DOCUMENT (Subject to changes) Footpath Replacement Program 2023/2024 to 2025/2026

Seg I.D. No.	ROAD OR STREET NAME	Segment FROM Street Name or Description	Dist. m	TO Street Name or Description	Dist. m	Loc	Footpath Length Metres	Width metres	Area sqm	Driveway Square Metres	Side of street	Rep With	SM REC	Footpath General $/m Rate Council	Comments Relating To Footpath	F/P Priority	REPLACE YEAR	REPLACEMENT COST Council to Fill in
390	Drummond St	Drummond C West	917	End of kerb	991	Perth	74	1.80	133		Nth	Conc	New	$135	Nth side. Near Kerb		2023-2024	$ 17,955.00
371	Drummond Cresc	Kerb	394	Drummond	474	Perth	87	1.80	156		West	Conc	New	$135	West side	16	2023-2024	$ 21,060.00
373	Drummond Cr East	Drummond East	0	Charles	291	Perth	290	1.80	522			Conc	New	$135		16	2023-2024	$ 70,470.00
374	Drummond Cresc	Change	291	Start Kerb	391	Perth	99	1.80	178			Conc	New	$135		17	2023-2024	$ 24,030.00
379	Drummond St	Drummond C East	667	End K&g	808	Perth	81	1.80	146		Nth	Conc	New	$135	Nth side. Near Kerb	22	2023-2024	$ 19,710.00
953	Norfolk	Drummond	0	Seal Chang	125	Perth	125	1.80	225		East	Conc	New	$135			2023-2024	$ 30,375.00
954	Norfolk	Seal Change	125		261	Perth	136	1.80	245		East	Conc	New	$135			2023-2024	$ 33,075.00
459	Frederick	Clarence	951	William	1164	Perth	213	1.80	384			Conc	New	$135			2023-2024	$ 51,840.00
395	Edward	Napoleon	0	Cromwell	252	Perth	252	1.80	454		North	Conc	New	$135			2023-2024	$ 61,290.00
																		$ 329,805.00
884	Lewis Street	Tasmania St	1100	Wellington	1248	Long	120	1.80	216			Conc	New	$140			2024-2025	$ 30,240.00
1204	Tasmania Street	Lewis	0	Bulwer	135	Long	140	1.80	252			Conc	New	$140			2024-2025	$ 35,280.00
239	Catherine St	William	0	High	206	Long	206	1.80	371			Conc	Replace	$140	Consider Width		2024-2025	$ 51,940.00
239,7,240	Catherine St	High	206	No 23		Long	70	1.80	126			Conc	New	$140			2024-2025	$ 17,640.00
247	Catherine St	Talbot		Crecroft		Long	45	1.80	81			Conc	New	$140			2024-2025	$ 11,340.00
248	Catherine St	Crecroft		End		Long	123	1.80	221			Conc	New	$140			2024-2025	$ 30,940.00
1198	Talisha	Clarence	288	William	504	Perth	216	1.80	392			Conc	New	$140			2024-2025	$ 54,880.00
38	Arthur	Clarence	832	Seal Chang	935	Perth	103	1.80	185		South	Conc	New	$140			2024-2025	$ 25,900.00
34	Arthur	0	935		968	Perth	33	1.80	59		South	Conc	New	$140			2024-2025	$ 8,260.00
39	Arthur	0	968	End	1000	Perth	32	1.80	58		South	Conc	New	$140			2024-2025	$ 8,120.00
12	Archer Street	No 32	87	Wilson	215	Cressy	128	1.50	192	24	West	Conc	New	$140			2024-2025	$ 30,240.00
1403	Wilson	Cressy Road	0	Archer St	161	Cressy	156	1.50	234			Conc	New	$140			2024-2025	$ 33,930.00
1124	Saundridge Street East	Cressy Road		End kerb	164	Cressy	164	1.80	246	84	North	Conc	New	$145			2024-2025	$ 44,950.00
																		$ 383,880.00
603	Horne Street	Lewis		Crecroft	300	Long	300	1.80	540			Conc	New	$145			2025-2026	$ 78,300.00
971	Old post	Clarence	0	William	237	Perth	238	1.80	428			Conc	New	$145			2025-2026	$ 62,060.00
1699	Pultney	Pakenham	480	Catherine	667	Long	177	1.80	319			Conc	New	$145	Should be part of subdivision conditions		2025-2026	$ 44,660.00
321	Crecroft	Catherine	0	Cressy Rd	250	Long	250	1.80	450			Conc	New	$145			2025-2026	$ 65,250.00
322	Crecroft	Cressy Road	250	Marlborough	349	Long	80	1.80	144			Conc	New	$145			2025-2026	$ 20,880.00
323	Crecroft	Marlborough	349	Mews Crt	429	Long	70	1.80	126			Conc	New	$145			2025-2026	$ 18,270.00
324	Crecroft	Mews Crt	429	Equis Court	571	Long	142	1.80	256			Conc	New	$145			2025-2026	$ 37,120.00
326	Crecroft	Equis Court	571	Anstey	653	Long	82	1.80	148			Conc	New	$145			2025-2026	$ 21,460.00
1195	Talbot Street	Catherine St	0	Cressy Rd	254	Long	254	1.80	457			Conc	New	$145			2025-2026	
470/471	George Street	Park	590	Gay St	762	Long	200	1.80	371			Conc	New	$145			2025-2026	
1188	Stocker	Lewis	0	Bulwer	135	Long	135	1.80	243			Conc	New	$145			2025-2026	
510/511	Goderich	Park	419	Gay St	630	Long	211	1.80	380			Conc	New	$145			2025-2026	

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- Bridge Improvement Program

Bridge Number	Location Area	Map Ref	Map Co-ord	Location Road	Water Course	Deck Area	Year Const	Age	Abut Type	Rep With	Replace Date / 2	Rep Cost 2	Bridge Builder	
3259	LONG	OCONNORS	059553	LAKE RIVER ROAD	DARCOL RIVULET	65.50	2001	12	VG Conc	CONC	015-016	$ 160,000	Bridge Pro Completed	Comp
2530	LONG	CRESSY	113813	POWRANNA ROAD	MACQUARIE RIVER	199.60	1988	25	TIMB	CONC	015-016	$ 1,888,000	Allow for 2 lanes	In Prog
	LONG	CRESSY	112813	POWRANNA ROAD	MACQUARIE RIVER	40.50	1987	26	VG Conc	CONC	015-016	Included above	Includes raising road 1.5 m	In Prog
5757	FING	HENRY	811688	ROYAL GEORGE ROAD	UNNAMED CREEK	34.50	1995	18	VG Conc	CONC	015-016	$ 70,000	By Council	In Prog
7350	LONG	DELMONT	080781	MACQUARIE ROAD	LAKE RIVER	396.20	1992	21	TIMB	CONC	015-016	$ 1,400,000	Allow for 2 lanes	1
											015-016	$ 3,518,000		
1130	LONG	LONGFORD	122913	WOOLMERS LANE	MACQUARIE RIVER	187.20	1992	21	TIMB	CONC	016-017	$ 1,600,000	Allow for 2 lanes	2
2150	FING	ROYS	703651	SNOW HILL ROAD	SNOW CREEK	18.00	1981	32	VG Conc	CONC	016-017	$ 25,000	By Council	3
2353	FING	ROYS	789691	ROYAL GEORGE ROAD	LEWIS HILL CREEK	45.50	1994	19	VG Conc	CONC	016-017	$ 720,000	By Contract	5
3725	FING	HENRY	835695	MOSHANES ROAD	HOP POLE CREEK	60.74	1996	17	Timb Piles	CONC	016-017	$ 300,000	By Contract	6
											016-017	$ 1,945,000		
1306	FING	ROSSARDEN	616864	ROSSARDEN ROAD	STOREYS CREEK	45.13	2004	9	VG Conc	CONC	017-018	$ 120,000	Replaced by Gunns	7
5241	CAMP	CAMP	404573	BRIDGE STREET	UNNAMED CREEK	18.50	1978	25	STONE	TIMBER	017-018	$ 14,000	Council With Timber	8
											017-018	$ 134,000		
1499	FING	MANGANA	609906	STORYS CREEK ROAD	STOREYS CREEK	60.5	1997	16	VG Conc	CONC	018-019	$ 100,000	By Contract	9
4030	FING	STANHOPE	598-577	STORYS CREEK ROAD	TASMANIA CREEK	31.45	1997	16	Conc Pier	CONC	018-019	$ 120,000	By Contract	10
2119	EVAN	STANHOPE	564-852	GIPPS CREEK ROAD	UNNAMED CREEK	42.20	1997	16	TIMB	CONC	018-019	$ 180,000	By Contract	11
1520	EVAN	HAMLETH	437735	BRAMBLETYE	HORSE PADDOCK CREEK	28.20	1998	15		CONC	018-019	$ 90,000	By Council	4
											018-019	$ 410,000		
4619	ROSS	MORRISTON	478318	TOOMS LAKE	MACQUARIE RIVER	89.80	1998	15	TIMB	CONC	019-020	$ 360,000	By Contract	12
5928	FING	HENRY	842652	OLD COACHMANS ROAD	UNNAMED CREEK	18.50	1999	14	VG Conc	CONC	019-020	$ 70,000	By Council	14
1815	LONG	POATINA	921776	HOP VALLEY	GARCIAS CREEK	48.7	1996	18	CONC	CONTIM	019-020	$ 150,000	Doolan DeckTee Span	15
4519	ROSS	ELLENTHORPE	257446	VERWOOD	TERNDALE CREEK	21.50	2000	13	CONC	CONC	019-020	$ 60,000		16
											019-020	$ 630,000		
9997	Mersley	LIFFEY	842855	OFF GULF ROAD	LIFFEY RIVER	51.84	2011		CONC		030-031	$ 200,000	$ 200,000.00	17
1981	LONG	OCONNORS	067603	LAKE RIVER ROAD	SHOEBRIDGE CREEK	27.50	1980	17	TIMB	Steel Pipe			Mon tor Pipe put in by Gunns	

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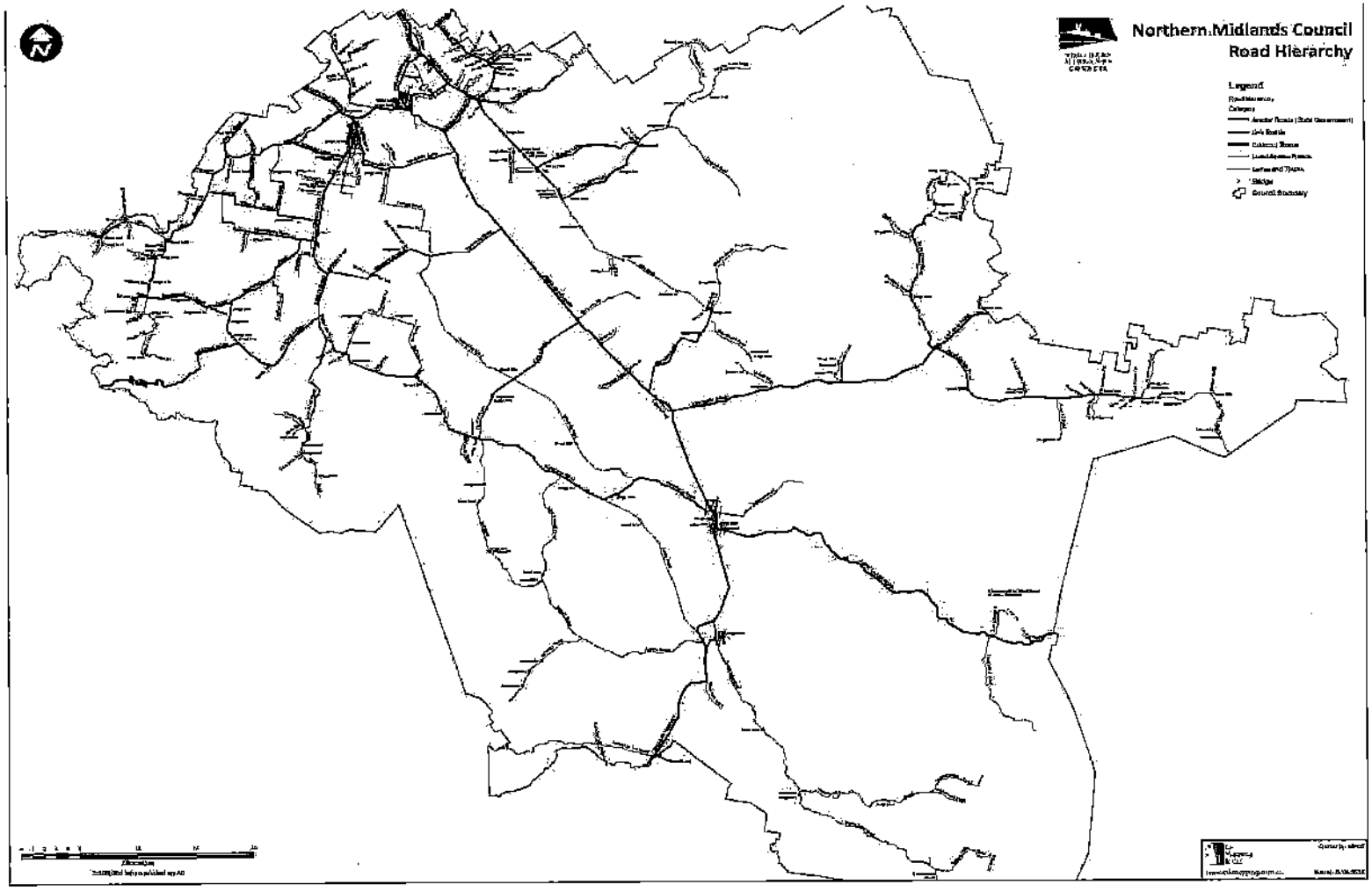
Appendix J Road Map



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Appendix K Road Project Business Case (Draft)

Introduction

Council has developed a system for analytically determining the priority given to a proposed capital project, by introducing a fair process of assessment for each nominated project. Adopting this method of project prioritisation ensures a justified decision making process with respect to good practice asset management. A standard and consistent application for nominating potential capital projects will result in a complete and auditable process. This process will incorporate; works program development, identifying asset requirements, setting appropriate levels of service, levels of maintenance intervention, selection of treatment options and the process of prioritisation and optimisation of the programmed works to ensure best value for money.

This approach to capital project evaluation is based on the *IIMM* structured process of prioritising capital works using Multi-Criteria Analysis and Benefit-Cost Analysis. Multi-Criteria Analysis involves ranking projects individually on Risk/Safety, Technical, Corporate, Social, Environmental impacts and also on criteria that directly applies to the particular asset category. Each criterion is nominated a ranking system which is then weighted based on the importance of the criteria. All scores are added to create a project priority percentage, which allows for comparison to similar projects, the higher percentage resulting in higher priority.

The Benefit-Cost Analysis provides the link between Multi-Criteria Analysis and the projects predicted lifecycle costs to council. The analysis results in a Benefit Cost Ratio that is comparable with similar projects in determining "value for money".

Risk Management

One of the main objectives in developing this process of project identification is the initial evaluation of risk associated with undertaking a project, or, safety/risk issues associated with NOT completing a project. Large or complex projects may involve the completion of a risk assessment in accordance with the relative Asset Management Plan (AMP) and Infrastructure Risk Management Plan (IRMP). General projects relatively small may be assessed mindful of the associated content in the AMP and IRMP.

Level of Service

Council has devised within the AMP's documented current service level standards for each respective asset category. Each asset category service level has an optimum performance target which has identified areas requiring improvement. Through analysis of the areas requiring improvement has evolved a number of capital projects to raise the current level of service to meet the optimum performance targets. Due to the large number of project identified it is essential to devise a semi automated process of prioritisation to filter projects of importance to the top of the list.

Project Priority Rating

The following criteria measures the potential impact the project will have on the various areas of identified importance.

Risk/Safety

Risk priority is assessed in accordance with an Infrastructure Risk Management Plan **(yet to be implemented)** for the particular asset category, based on the likelihood and consequence of failure. Probable risks associated with asset creation/ upgrade/ renewal include;

- → Physical Risk; potential for personal damage/injury to the user if assets remain in service
- → Financial Risk; over expenditure on maintenance to sustain a serviceable asset, uncertain funding and/or conditions of the proposed project
- → Political Risk; If asset falls below service standard will attract public concern and/or political pressure for asset creation/upgrade due to community demand.

The scoring for risk/safety is to be scaled to suit the significants of each asset class and category as documented in the respective asset management plans.

0. Nil risk or safety issues involved
1. Low risk with minor consequences
2. Medium risk
3. Medium – High
4. High

The scoring of this criterion has the highest weighting of 25% due to the risk based approach to identifying priority projects.

Technical

Technical priority is assessed based on the current standard of the asset/s and the project's ability to improve the asset's function/condition. This may be further based on the assessed condition of the asset and the estimated remaining life to determine its priority. Improvement of the asset's function by comparing the current capacity of the existing assets to the proposed upgrade of the assets through;

- → Technology enhancement
- → Higher design standard
- → Increased serviceability
- → Condition/Life remaining
- → Improved function efficiency

The scoring of technical aspects is to be scaled to suit the significants of each asset class and category as documented in the respective asset management plans.

1. Neutral
2. Good Condition / Minimal improved function
3. Average Condition / Some improvement in function
4. Requires work / Significant improvement in function

5. End of serviceable life / Optimum improved function

The scoring of the Technical criteria has adopted a 20% weighting to recognise the process of logical assessment in the asset lifecycle and potential function efficiencies.

Corporate
Corporate priority is linked to whether the project is a commitment through a Council resolution and/or included in the following Council approved documents:

→ Asset Management Policy

→ Risk Management Policy

→ Asset Management Plan/Strategy

→ Emergency Response Plan

→ Business Plans

Projects stated in the above Council approved documents are to be scored relative to the documented importance of the project outcome. For example, Council policy is to provide a footpath on at least one side of the road connecting all urban streets from town centres to town boundaries (resulting in streets closer to town centres gaining a higher priority for footpath construction, hence higher pedestrian use). The scoring of corporate responsibilities is to be scaled to suit the significants of each asset class and category as documented in the respective asset management plans.

0. Neutral
1. Low
2. Medium
3. High

The scoring of the corporate criteria has adopted a 20% weighting due to the importance of Council commitments and approved policies.

Transport – Road Category
This is related to the specified road category of the asset, as documented in the *Road Asset Management Plan*;

1. Arterial
2. Link or Industrial
3. Collector
4. Local Access

Social/Community Impact
This criterion is based on the perceived community benefit through project completion. This can be measured and assessed based on the number of residential properties directly affected or the potential number of users the completed project will attract.

→ Number of properties in the general area of the project

→ Public/community usage

→ Public/community perception of project outcome

→ Social community involvement

The scoring of Social/Community aspects is to be scaled to suit the significants of each asset class and category as documented in the respective asset management plans.

0. Neutral
1. Low
2. Medium
3. High

The scoring of the Social/Community criteria has adopted a 10% weighting to recognise the importance of community satisfaction with Council projects.

Environment

Environmental impact is assessed based on the significants of the surrounding environment, including the natural and built environment.

→ Impact on Flora and Fauna; removal of trees and significant native species

→ Impact on landscape; rural scenic character or urban town character

→ Cultural heritage

→ Pollution; residents affected by increased traffic volume, noise

The scoring of Environment aspects is to be scaled to suit the significants of each asset class and category as documented in the respective asset management plans.

1. Neutral
2. Low
3. Medium
4. High

The scoring of the Environment criteria has adopted a 10% weighting to recognise the importance of environmental conditions when proposing a Capital Project.

Capital Project Business Case application forms to be adopted:

Capital Project Business Case

Capital Project Creation/Upgrade/Renewal Selection Criteria

Project Description: _____

Details:

Date: _____

Project Size: ☐ Small ☐ Medium ☐ Large

Project Origin:
- ☐ Council decision
- ☐ General Manager
- ☐ Engineering Services
- ☐ Community Body
- ☐ Resident request

Asset Class:
- ☐ Transport
- ☐ Stormwater
- ☐ Buildings
- ☐ Parks & Reserves

Asset Category:
- ☐ Road Reconstruction
- ☐ Road Reseal
- ☐ Kerb & Channel
- ☐ Footpath
- ☐ Bridges
- ☐ Carparks
- ☐ Other Road Assets
- ☐ SW Latrobe
- ☐ SW Port Sorell
- ☐ Building Substructure
- ☐ Building Superstructure
- ☐ Building Internal
- ☐ Building Services
- ☐ _____

Project Type:
- ☐ Creation
- ☐ Upgrade
- ☐ Renewal

Project Priority Rating

	Criteria	Rating	Weighting	Score
	Risk/Safety is to be assessed in accordance with the Infrastructure Risk Management Plan, based on the likelihood and consequence of failure	/ 4	25%	/ 100
	Technical is to be assessed based on the current standard of the asset/s and the project's ability to improve the asset's condition/function	/ 5	20%	/ 100
	Corporate is linked to whether the project is a commitment through a Council resolution or includes in the strategic plan or policy e.g. extension/new infrastructure from the town centre out.	/ 3	20%	/ 60
Asset Class (please circle the primary asset class)	**Transport - Road Category** is related to the specified road category of the asset (1) Residential (2) Commercial (3) Collector	/ 3	15%	/ 45
	Stormwater - Significant Stormwater Link priority is assessed based on the significance of the projects within the stormwater network	/ 3	15%	/ 45
	Buildings - Building Usage priority is based on the current building use and the effective use of the completed project	/ 3	15%	/ 45
	Parks & Reserves - Park/Reserve Usage priority is based on the current park/reserve use and the effective use of the completed project	/ 3	15%	/ 45
	Social/Community Impact community benefit through project completion e.g. number of properties affected	/ 3	10%	/ 30
	Environment environmental impact is assessed based on the significants of the surrounding environment, including the natural and built environment	/ 3	10%	/ 30
			Total	/ 365
		PROJECT SCORE		%

Capital Project Business Case

Capital Project Construction and Lifecycle Costs

Project Construction Cost Breakdown

Creation/New works which creates assets that did not previously exist	%	$
Upgrade works that improves an asset beyond its existing capacity	%	$
Renewal/Replacement major work which does not increase assets capacity but restores, rehabilitates, replaces or renews to original service potential	%	$
Estimated Project Construction Cost		$

Asset Lifecycle Costs

Asset's Useful Life (years): Years

the asset useful life is for the asset component with the longest lifespan
e.g. a road reconstruction is therefore based on the pavement asset as it would have the longest lifespan.

Criteria	Cost
Asset Operational Costs costs for operations including; personnel, materials, fuel, energy, management...	
Current Annual Operation Costs	$
Proposed Annual Operational Costs	$
Proposed Lifecycle Operational Costs	$
Asset Maintenance Costs work that does not increase service potential or life but ensures that the asset provides service for expected amount of time	
Current Annual Maintenance Costs	$
Proposed Annual Maintenance Costs	$
Proposed Lifecycle Maintenance Costs	$
Asset Depreciation/Renewal Costs Required capital renewals to ensure the project reaches expected useful life. Eg: Road reconstruction project requires reseals throughout pavement life.	
Current Annual Depreciation/Renewal Costs	$
Proposed Annual Depreciation/Renewal Costs	$
Proposed Lifecycle Depreciation/Renewal Costs	
Total Asset Lifecycle Cost	$

Project Notes:

Appendix L Abbreviations

AAAC	Average annual asset consumption
AM	Asset management
AM Plan	Asset management plan
ARI	Average recurrence interval
ASC	Annual service cost
BOD	Biochemical (biological) oxygen demand
CRC	Current replacement cost
CWMS	Community wastewater management systems
DA	Depreciable amount
DRC	Depreciated replacement cost
EF	Earthworks/formation
IRMP	Infrastructure risk management plan
LCC	Life Cycle cost
LCE	Life cycle expenditure
LTFP	Long term financial plan
MMS	Maintenance management system
PCI	Pavement condition index
RV	Residual value
SoA	State of the Assets
SS	Suspended solids
vph	Vehicles per hour
WDCRC	Written down current replacement cost

Appendix M Glossary

Annual service cost (ASC)

1) Reporting actual cost
   The annual (accrual) cost of providing a service including operations, maintenance, depreciation, finance/opportunity and disposal costs less revenue.
2) For investment analysis and budgeting
   An estimate of the cost that would be tendered, per annum, if tenders were called for the supply of a service to a performance specification for a fixed term. The Annual Service Cost includes operations, maintenance, depreciation, finance/ opportunity and disposal costs, less revenue.

Asset

A resource controlled by an entity as a result of past events and from which future economic benefits are expected to flow to the entity. Infrastructure assets are a sub-class of property, plant and equipment which are non-current assets with a life greater than 12 months and enable services to be provided.

Asset category

Sub-group of assets within a class hierarchy for financial reporting and management purposes.

Asset class

A group of assets having a similar nature or function in the operations of an entity, and which, for purposes of disclosure, is shown as a single item without supplementary disclosure.

Asset condition assessment

The process of continuous or periodic inspection, assessment, measurement and interpretation of the resultant data to indicate the condition of a specific asset so as to determine the need for some preventative or remedial action.

Asset hierarchy

A framework for segmenting an asset base into appropriate classifications. The asset hierarchy can be based on asset function or asset type or a combination of the two.

Asset management (AM)

The combination of management, financial, economic, engineering and other practices applied to physical assets with the objective of providing the required level of service in the most cost effective manner.

Asset renewal funding ratio

The ratio of the net present value of asset renewal funding accommodated over a 10 year period in a long term financial plan relative to the net present value of projected capital renewal expenditures identified in an asset management plan for the same period [AIFMG Financial Sustainability Indicator No 8].

Average annual asset consumption (AAAC)*

The amount of an organisation's asset base consumed during a reporting period (generally a year). This may be calculated by dividing the depreciable amount by the useful life (or total future economic benefits/service potential) and totalled for each and every asset OR by dividing the carrying amount (depreciated replacement cost) by the remaining useful life (or remaining future economic benefits/service potential) and totalled for each and every asset in an asset category or class.

Borrowings

A borrowing or loan is a contractual obligation of the borrowing entity to deliver cash or another financial asset to the lending entity over a specified period of time or at a specified point in time, to cover both the initial capital provided and the cost of the interest incurred for providing this capital. A borrowing or loan provides the means for the borrowing entity to finance outlays (typically physical assets) when it has insufficient funds of its own to do so, and for the lending entity to make a financial return, normally in the form of interest revenue, on the funding provided.

Capital expenditure

Relatively large (material) expenditure, which has benefits, expected to last for more than 12 months. Capital expenditure includes renewal, expansion and upgrade. Where capital projects involve a combination of renewal, expansion and/or upgrade expenditures, the total project cost needs to be allocated accordingly.

Capital expenditure - expansion

Expenditure that extends the capacity of an existing asset to provide benefits, at the same standard as is currently enjoyed by existing beneficiaries, to a new group of users. It is discretionary expenditure, which increases future operations and maintenance costs, because it increases the organisation's asset base, but may be associated with additional revenue from the new user group, eg. extending a drainage or road network, the provision of an oval or park in a new suburb for new residents.

Capital expenditure - new
Expenditure which creates a new asset providing a new service/output that did not exist beforehand. As it increases service potential it may impact revenue and will increase future operations and maintenance expenditure.

Capital expenditure - renewal
Expenditure on an existing asset or on replacing an existing asset, which returns the service capability of the asset up to that which it had originally. It is periodically required expenditure, relatively large (material) in value compared with the value of the components or sub-components of the asset being renewed. As it reinstates existing service potential, it generally has no impact on revenue, but may reduce future operations and maintenance expenditure if completed at the optimum time, eg. resurfacing or resheeting a material part of a road network, replacing a material section of a drainage network with pipes of the same capacity, resurfacing an oval.

Capital expenditure - upgrade
Expenditure, which enhances an existing asset to provide a higher level of service or expenditure that will increase the life of the asset beyond that which it had originally. Upgrade expenditure is discretionary and often does not result in additional revenue unless direct user charges apply. It will increase operations and maintenance expenditure in the future because of the increase in the organisation's asset base, eg. widening the sealed area of an existing road, replacing drainage pipes with pipes of a greater capacity, enlarging a grandstand at a sporting facility.

Capital funding
Funding to pay for capital expenditure.

Capital grants
Monies received generally tied to the specific projects for which they are granted, which are often upgrade and/or expansion or new investment proposals.

Capital investment expenditure
See capital expenditure definition

Capitalisation threshold
The value of expenditure on non-current assets above which the expenditure is recognised as capital expenditure and below which the expenditure is charged as an expense in the year of acquisition.

Carrying amount
The amount at which an asset is recognised after deducting any accumulated depreciation / amortisation and accumulated impairment losses thereon.

Class of assets
See asset class definition

Component
Specific parts of an asset having independent physical or functional identity and having specific attributes such as different life expectancy, maintenance regimes, risk or criticality.

Core asset management
Asset management which relies primarily on the use of an asset register, maintenance management systems, job resource management, inventory control, condition assessment, simple risk assessment and defined levels of service, in order to establish alternative treatment options and long-term cashflow predictions. Priorities are usually established on the basis of financial return gained by carrying out the work (rather than detailed risk analysis and optimised decision- making).

Cost of an asset
The amount of cash or cash equivalents paid or the fair value of the consideration given to acquire an asset at the time of its acquisition or construction, including any costs necessary to place the asset into service. This includes one-off design and project management costs.

Critical assets
Assets for which the financial, business or service level consequences of failure are sufficiently severe to justify proactive inspection and rehabilitation. Critical assets have a lower threshold for action than non-critical assets.

Current replacement cost (CRC)
The cost the entity would incur to acquire the asset on the reporting date. The cost is measured by reference to the lowest cost at which the gross future economic benefits could be obtained in the normal course of business or the minimum it would cost, to replace the existing asset with a technologically modern equivalent new asset (not a second hand one) with the same economic benefits (gross service potential) allowing for any differences in the quantity and quality of output and in operating costs.

Deferred maintenance
The shortfall in rehabilitation work undertaken relative to that required to maintain the service potential of an asset.

Depreciable amount
The cost of an asset, or other amount substituted for its cost, less its residual value.

Depreciated replacement cost (DRC)
The current replacement cost (CRC) of an asset less, where applicable, accumulated depreciation calculated on the basis of such cost to reflect the already consumed or expired future economic benefits of the asset.

Depreciation / amortisation
The systematic allocation of the depreciable amount (service potential) of an asset over its useful life.

Economic life
See useful life definition.

Expenditure
The spending of money on goods and services. Expenditure includes recurrent and capital outlays.

Expenses
Decreases in economic benefits during the accounting period in the form of outflows or depletions of assets or increases in liabilities that result in decreases in equity, other than those relating to distributions to equity participants.

Fair value
The amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties, in an arms length transaction.

Financing gap
A financing gap exists whenever an entity has insufficient capacity to finance asset renewal and other expenditure necessary to be able to appropriately maintain the range and level of services its existing asset stock was originally designed and intended to deliver. The service capability of the existing asset stock should be determined assuming no additional operating revenue, productivity improvements, or net financial liabilities above levels currently planned or projected. A current financing gap means service levels have already or are currently falling. A projected financing gap if not addressed will result in a future diminution of existing service levels.

Heritage asset
An asset with historic, artistic, scientific, technological, geographical or environmental qualities that is held and maintained principally for its contribution to knowledge and culture and this purpose is central to the objectives of the entity holding it.

Impairment Loss
The amount by which the carrying amount of an asset exceeds its recoverable amount.

Infrastructure assets
Physical assets that contribute to meeting the needs of organisations or the need for access to major economic and social facilities and services, eg. roads, drainage, footpaths and cycleways. These are typically large, interconnected networks or portfolios of composite assets. The components of these assets may be separately maintained, renewed or replaced individually so that the required level and standard of service from the network of assets is continuously sustained. Generally the components and hence the assets have long lives. They are fixed in place and are often have no separate market value.

Investment property
Property held to earn rentals or for capital appreciation or both, rather than for:
(a) use in the production or supply of goods or services or for administrative purposes; or
(b) sale in the ordinary course of business.

Key performance indicator
A qualitative or quantitative measure of a service or activity used to compare actual performance against a standard or other target. Performance indicators commonly relate to statutory limits, safety, responsiveness, cost, comfort, asset performance, reliability, efficiency, environmental protection and customer satisfaction.

Level of service
The defined service quality for a particular service/activity against which service performance may be measured. Service levels usually relate to quality, quantity, reliability, responsiveness, environmental impact, acceptability and cost.

Life Cycle Cost *
1. **Total LCC** The total cost of an asset throughout its life including planning, design, construction, acquisition, operation, maintenance, rehabilitation and disposal costs.
2. **Average LCC** The life cycle cost (LCC) is average cost to provide the service over the longest asset life cycle. It comprises average operations, maintenance expenditure plus asset consumption expense, represented by depreciation expense projected over 10 years. The Life Cycle Cost does not indicate the funds required to provide the service in a particular year.

Life Cycle Expenditure
The Life Cycle Expenditure (LCE) is the average operations, maintenance and capital renewal expenditure accommodated in the long term financial plan over 10 years. Life Cycle Expenditure may be compared to average Life Cycle Cost to give an initial indicator of affordability of projected service levels when considered with asset age profiles.

Loans / borrowings
See borrowings.

Maintenance
All actions necessary for retaining an asset as near as practicable to an appropriate service condition, including regular ongoing day-to-day work necessary to keep assets operating, eg road patching but excluding rehabilitation or renewal. It is operating expenditure required to ensure that the asset reaches its expected useful life.

- **Planned maintenance**
  Repair work that is identified and managed through a maintenance management system (MMS). MMS activities include inspection, assessing the condition against failure/breakdown criteria/experience, prioritising scheduling, actioning the work and reporting what was done to develop a maintenance history and improve maintenance and service delivery performance.
- **Reactive maintenance**
  Unplanned repair work that is carried out in response to service requests and management/ supervisory directions.
- **Specific maintenance**
  Maintenance work to repair components or replace sub-components that needs to be identified as a specific maintenance item in the maintenance budget.
- **Unplanned maintenance**
  Corrective work required in the short-term to restore an asset to working condition so it can continue to deliver the required service or to maintain its level of security and integrity.

Maintenance expenditure *
Recurrent expenditure, which is periodically or regularly required as part of the anticipated schedule of works required to ensure that the asset achieves its useful life and provides the required level of service. It is expenditure, which was anticipated in determining the asset's useful life.

Materiality
The notion of materiality guides the margin of error acceptable, the degree of precision required and the extent of the disclosure required when preparing general purpose financial reports. Information is material if its omission, misstatement or non-disclosure has the potential, individually or collectively, to influence the economic decisions of users taken on the basis of the financial report or affect the discharge of accountability by the management or governing body of the entity.

Modern equivalent asset
Assets that replicate what is in existence with the most cost-effective asset performing the same level of service. It is the most cost efficient, currently available asset which will provide the same stream of services as the existing asset is capable of producing. It allows for technology changes and, improvements and efficiencies in production and installation techniques

Net present value (NPV)
The value to the organisation of the cash flows associated with an asset, liability, activity or event calculated using a discount rate to reflect the time value of money. It is the net amount of discounted total cash inflows after deducting the value of the discounted total cash outflows arising from eg the continued use and subsequent disposal of the asset after deducting the value of the discounted total cash outflows.

Non-revenue generating investments
Investments for the provision of goods and services to sustain or improve services to the community that are not expected to generate any savings or revenue to the Council, eg. parks and playgrounds, footpaths, roads and bridges, libraries, etc.

Operations
Regular activities to provide services such as public health, safety and amenity, eg street sweeping, grass mowing and street lighting.

Operating expenditure
Recurrent expenditure, which is continuously required to provide a service. In common use the term typically includes, eg power, fuel, staff, plant equipment, on-costs and overheads but excludes maintenance and depreciation. Maintenance and depreciation is on the other hand included in operating expenses.

Operating expense
The gross outflow of economic benefits, being cash and non cash items, during the period arising in the course of ordinary activities of an entity when those outflows result in decreases in equity, other than decreases relating to distributions to equity participants.

Operating expenses
Recurrent expenses continuously required to provide a service, including power, fuel, staff, plant equipment, maintenance, depreciation, on-costs and overheads.

Operations, maintenance and renewal financing ratio
Ratio of estimated budget to projected expenditure for operations, maintenance and renewal of assets over a defined time (eg 5, 10 and 15 years).

Operations, maintenance and renewal gap
Difference between budgeted expenditures in a long term financial plan (or estimated future budgets in absence of a long term financial plan) and projected expenditures for operations, maintenance and renewal of assets to achieve/maintain specified service levels, totalled over a defined time (e.g. 5, 10 and 15 years).

Pavement management system (PMS)
A systematic process for measuring and predicting the condition of road pavements and wearing surfaces over time and recommending corrective actions.

PMS Score
A measure of condition of a road segment determined from a Pavement Management System.

Rate of annual asset consumption *
The ratio of annual asset consumption relative to the depreciable amount of the assets. It measures the amount of the consumable parts of assets that are consumed in a period (depreciation) expressed as a percentage of the depreciable amount.

Rate of annual asset renewal *
The ratio of asset renewal and replacement expenditure relative to depreciable amount for a period. It measures whether assets are being replaced at the rate they are wearing out with capital renewal expenditure expressed as a percentage of depreciable amount (capital renewal expenditure/DA).

Rate of annual asset upgrade/new *
A measure of the rate at which assets are being upgraded and expanded per annum with capital upgrade/new expenditure expressed as a percentage of depreciable amount (capital upgrade/expansion expenditure/DA).

Recoverable amount
The higher of an asset's fair value, less costs to sell and its value in use.

Recurrent expenditure
Relatively small (immaterial) expenditure or that which has benefits expected to last less than 12 months. Recurrent expenditure includes operations and maintenance expenditure.

Recurrent funding
Funding to pay for recurrent expenditure.

Rehabilitation
See capital renewal expenditure definition above.

Remaining useful life
The time remaining until an asset ceases to provide the required service level or economic usefulness. Age plus remaining useful life is useful life.

Renewal
See capital renewal expenditure definition above.

Residual value
The estimated amount that an entity would currently obtain from disposal of the asset, after deducting the estimated costs of disposal, if the asset were already of the age and in the condition expected at the end of its useful life.

Revenue generating investments
Investments for the provision of goods and services to sustain or improve services to the community that are expected to generate some savings or revenue to offset operating costs, eg public halls and theatres, childcare centres, sporting and recreation facilities, tourist information centres, etc.

Risk management
The application of a formal process to the range of possible values relating to key factors associated with a risk in order to determine the resultant ranges of outcomes and their probability of occurrence.

Section or segment
A self-contained part or piece of an infrastructure asset.

Service potential
The total future service capacity of an asset. It is normally determined by reference to the operating capacity and economic life of an asset. A measure of service potential is used in the not-for-profit sector/public sector to value assets, particularly those not producing a cash flow.

Service potential remaining
A measure of the future economic benefits remaining in assets. It may be expressed in dollar values (Fair Value) or as a percentage of total anticipated future economic benefits. It is also a measure of the percentage of the asset's potential to provide services that is still available for use in providing services (Depreciated Replacement Cost/Depreciable Amount).

Specific Maintenance
Replacement of higher value components/sub-components of assets that is undertaken on a regular cycle including repainting, replacement of air conditioning equipment, etc. This work generally falls below the capital/ maintenance threshold and needs to be identified in a specific maintenance budget allocation.

Strategic Longer-Term Plan
A plan covering the term of office of councillors (4 years minimum) reflecting the needs of the community for the foreseeable future. It brings together the detailed requirements in the Council's longer-term plans such as the asset management plan and the long-term financial plan. The plan is prepared in consultation with the community and details where the Council is at that point in time, where it wants to go, how it is going to get there, mechanisms for monitoring the achievement of the outcomes and how the plan will be resourced.

Sub-component
Smaller individual parts that make up a component part.

Useful life
Either:
(a) the period over which an asset is expected to be available for use by an entity, or
(b) the number of production or similar units expected to be obtained from the asset by the entity.
It is estimated or expected time between placing the asset into service and removing it from service, or the estimated period of time over which the future economic benefits embodied in a depreciable asset, are expected to be consumed by the Council.

Value in Use
The present value of future cash flows expected to be derived from an asset or cash generating unit. It is deemed to be depreciated replacement cost (DRC) for those assets whose future economic benefits are not primarily dependent on the asset's ability to generate net cash inflows, where the entity would, if deprived of the asset, replace its remaining future economic benefits.

Source: IPWEA, 2009, Glossary

Additional and modified glossary items show.

NORTHERN
MIDLANDS
COUNCIL

STORMWATER

Asset Management Plan

Version 1b

January 2016

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1c	March 2017	Reviewed with no material changes	MB		NMC 3/17

TABLE OF CONTENTS

1. EXECUTIVE SUMMARY

Context

Northern Midlands Council provides a stormwater network within town areas to drain the majority of properties, roads reservations and public open spaces.

This stormwater asset management plan includes all stormwater related assets of pipes, council maintained open drains, manholes, stormwater entry pits and grates, pollutant traps, and detention storage facilities.

Bridges, kerb and channel, open drains, and rural roadside drainage are referenced in Council's Transport Asset Management Plan.

Council employs a Plumbing Inspector to oversee stormwater house connections. New stormwater works are predominantly undertaken by private subdividers. Council stormwater extensions are undertaken by the maintenance staff or by contractors.

Council is currently working on Stormwater Management Plans for each of its towns beginning with Perth, Cressy and Longford. In addition, detailed engineering studies are being undertaken on improvements to the Translink Industrial Precinct stormwater system, and the West Perth Stormwater System.

The Stormwater Service

The Stormwater network comprises:

- 90.842 kms total length of pipes (2,690 records) with value of $28,880,912
- 2,661 Manholes, pits and grates with value of $5,837,362.

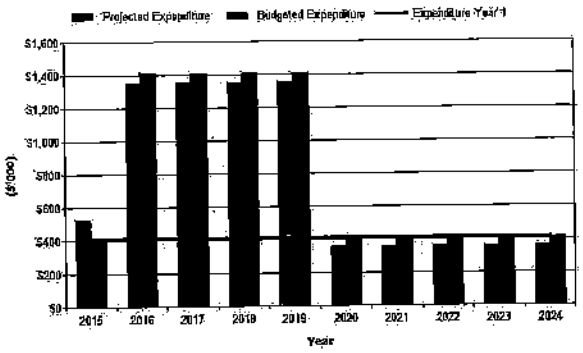
These infrastructure assets have a total replacement value of $34,045,073.

What does it Cost?

The projected outlays necessary to provide the services covered by this Asset Management Plan (AM Plan) includes operations, maintenance, renewal and upgrade of existing assets over the 10 year planning period is $7.735m or $773,000 on average per year.

Estimated available funding for this period is $8.1m or $810,000 on average per year which is 105% of the cost to provide the service. This is fully funding average expenditure per year (subject to grant funding or reserve funding of the Translink Stormwater Upgrade Plan). Projected expenditure required to provide services in the AM Plan compared with planned expenditure currently included in the Long Term Financial Plan are shown in the graph below.

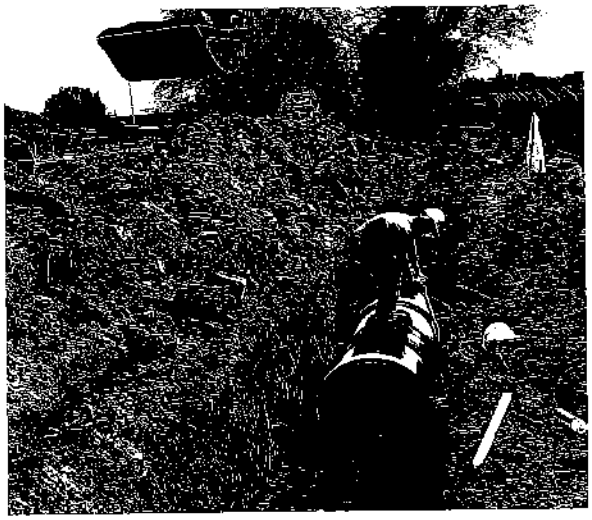
Northern Midlands - Projected and Budget Expenditure for (Stormwater_S1_V1)



What we will do

We plan to provide Stormwater services for the following:

- Operation, maintenance, renewal and upgrade of stormwater to meet service levels set by Council in annual budgets.
- Stormwater within the 10 year planning period.



What we cannot do

Works and services that cannot be provided under present funding levels possibly are:

- Major upgrades of stormwater systems at Translink Industrial Precinct and West Perth may need to be staged over several years without external funding sources being identified;
- Extension of the Longford Flood levee systems.

Managing the Risks

There are risks associated with providing the service and not being able to complete all identified activities and projects. We have identified major risks as:

- adequate maintenance of assets
- renewal at optimal time
- over-engineering/design
- emergency management.

We will endeavour to manage these risks within available funding by:

- maintenance levels
- condition assessments at regular intervals
- qualified experienced staff.

Confidence Levels

This AM Plan is based on medium level of confidence of information.

The Next Steps

The actions resulting from this asset management plan are:

- Asset data collection/refining and modelling,
- Review risk analysis of stormwater network to better identify priority items,
- Capital works expenditure to be further refined/ investigated,
- Incorporate any relevant components as a result of the Urban Drainage Act 2013 noting a key requirement being the development of Stormwater System Management Plan for the urban area within 6 years which is to specify:
  - i) Plans for the management of any assets used for the delivery of a stormwater service
  - ii)The level of risk from flooding for each urban stormwater catchment
  - iii) Any other matters prescribed in the regulations or that the council considers appropriate.

Questions you may have

What is this plan about?

This asset management plan covers the infrastructure assets that serve the Northern Midlands Council community's stormwater needs. These assets include stormwater pipes and associated pits throughout the community that enable people to live without water inundation where possible.

What is an Asset Management Plan?

Asset management planning is a comprehensive process to ensure delivery of services from infrastructure is provided in a financially sustainable manner.

An asset management plan details information about infrastructure assets including actions required to provide an agreed level of service in the most cost effective manner. The plan defines the services to be provided, how the services are provided and what funds are required to provide the services.

Why is there a funding shortfall?

Most of the Council's stormwater network was constructed by developers and from government grants, often provided and accepted without consideration of ongoing operations, maintenance and replacement needs.

Many of these assets are approaching the later years of their life and require replacement, services from the assets are decreasing and maintenance costs are increasing.

Our present funding levels are sufficient to continue to provide existing services at current levels in the medium term.

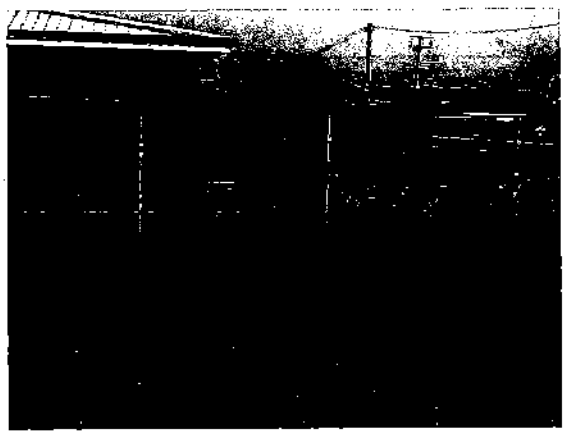
What options do we have?

Resolving any funding shortfall involves several steps:

1. Improving asset knowledge so that data accurately records the asset inventory, how assets are performing and when assets are not able to provide the required service levels,
2. Improving our efficiency in operating, maintaining, renewing and replacing existing assets to optimise life cycle costs,
3. Identifying and managing risks associated with providing services from infrastructure,
4. Making trade-offs between service levels and costs to ensure that the community receives the best return from infrastructure,
5. Identifying assets surplus to needs for disposal to make saving in future operations and maintenance costs,
6. Consulting with the community to ensure that stormwater services and costs meet community needs and are affordable,
7. Developing partnership with other bodies, where available to provide services,
8. Seeking additional funding from governments and other bodies to better reflect a 'whole of government' funding approach to infrastructure services.

What happens if we don't manage any shortfall?

It is likely that we will have to reduce service levels in some areas, unless new sources of revenue are found to fund any shortfall. For stormwater, the service level reduction may include open drains in urban areas, some flash flooding in heavy rain events.



What can we do?

We can develop options, costs and priorities for future stormwater services, consult with the community to plan future services to match the community service needs with ability to pay for services and maximise community benefits against costs.

2. INTRODUCTION

2.1 Background

This asset management plan is to demonstrate responsive management of assets (and services provided from assets), compliance with regulatory requirements, and to communicate funding needed to provide the required levels of service over a 20 year planning period.

The asset management plan follows the format for AM Plans recommended in Section 4.2.6 of the International Infrastructure Management Manual[1].

The asset management plan is to be read with the organisation's Asset Management Policy, Asset Management Strategy and the following associated planning documents:

- 'Mapping Our Direction' – 2007-2017 Strategic Plan Volumes 1 & 2
  This document outlines Council's vision and guiding principles to meet strategic objectives.
- Annual / Financial Report
  This outlines Council's activities and achievements for the financial year compared to its annual plan and strategic objectives, it also reports on the financial performance and position of Council.
- Annual Plan
  A detailed plan of projects and financial commitments for each year.
- Asset Management Policy & Strategy
  These documents outline Council's commitment to Asset Management.
- 10 Year Financial Plan
  This plan details Council's planned financial operating results, financial position and cash flows for each of the next 10 years. It outlines all aspects the key financial strategy objectives, funding parameters and commitments.
- 10 Year Capital Works Plan
  A detailed list of scheduled capital works projects for each year for the next 10 years.

This infrastructure assets covered by this asset management plan are shown in Table 2.1. These assets are used to provide stormwater services to the community.

Table 2.1: Assets covered by this Plan

Asset category	Dimension	Replacement Value
Drainage Mains	90.842 kms (2,690 recorded assets)	$28,880,912
• Pits (including Gross Pollutant Traps, headwalls, grated pits, manholes and side entry pits)	2,661 recorded assets	$5,837,362
TOTAL		**$34,045,073.**

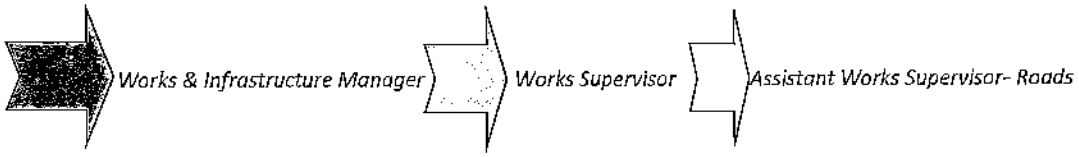
Key stakeholders in the preparation and implementation of this asset management plan are: Shown in Table 2.1.1.

[1] IPWEA, 2011, Sec 4.2.6, *Example of an Asset Management Plan Structure*, pp 4|24 – 27.

Table 2.1.1: Key Stakeholders in the AM Plan

Key Stakeholder	Role in Asset Management Plan
Councillors/Board Members	• Represent needs of community/shareholders, • Allocate resources to meet the organisation's objectives in providing services while managing risks, • Ensure organisation is financial sustainable.
CEO/General Manager	• To maintain a proactive approach to customer requests and • To maintain asset management systems and procedures which can better inform decisions by Councillors
Community	• The business community and residents in general (reporting perceived shortcomings, damage, safety concerns etc) • Tourists and visitors to the area
Emergency Services	• Emergency services reporting concerns with the current infrastructure in relation to their needs
Governments	• Governments providing input with regard to overall infrastructure performance in conjunction with infrastructure under their jurisdiction
Utility Services	• Utility companies providing input with regard to access to their assets
Developers	▪ Developers providing input with regard to their interests in future investment in the infrastructure
Neighbouring Councils	▪ Neighbouring councils with maintaining a dialogue in regard to asset management practices, construction standards, resource sharing etc

Our organisational structure for service delivery from infrastructure assets is detailed below,



2.2 Goals and Objectives of Asset Management

The organisation exists to provide services to its community. Some of these services are provided by infrastructure assets. We have acquired infrastructure assets by 'purchase', by contract, construction by our staff and by donation of assets constructed by developers and others to meet increased levels of service.

Our goal in managing infrastructure assets is to meet the defined level of service (as amended from time to time) in the most cost effective manner for present and future consumers. The key elements of infrastructure asset management are:

- Providing a defined level of service and monitoring performance,
- Managing the impact of growth through demand management and infrastructure investment,
- Taking a lifecycle approach to developing cost-effective management strategies for the long-term that meet the defined level of service,
- Identifying, assessing and appropriately controlling risks, and
- Having a long-term financial plan which identifies required, affordable expenditure and how it will be financed.[2]

[2] Based on IPWEA, 2011, IIMM, Sec 1.2 p 1|7.

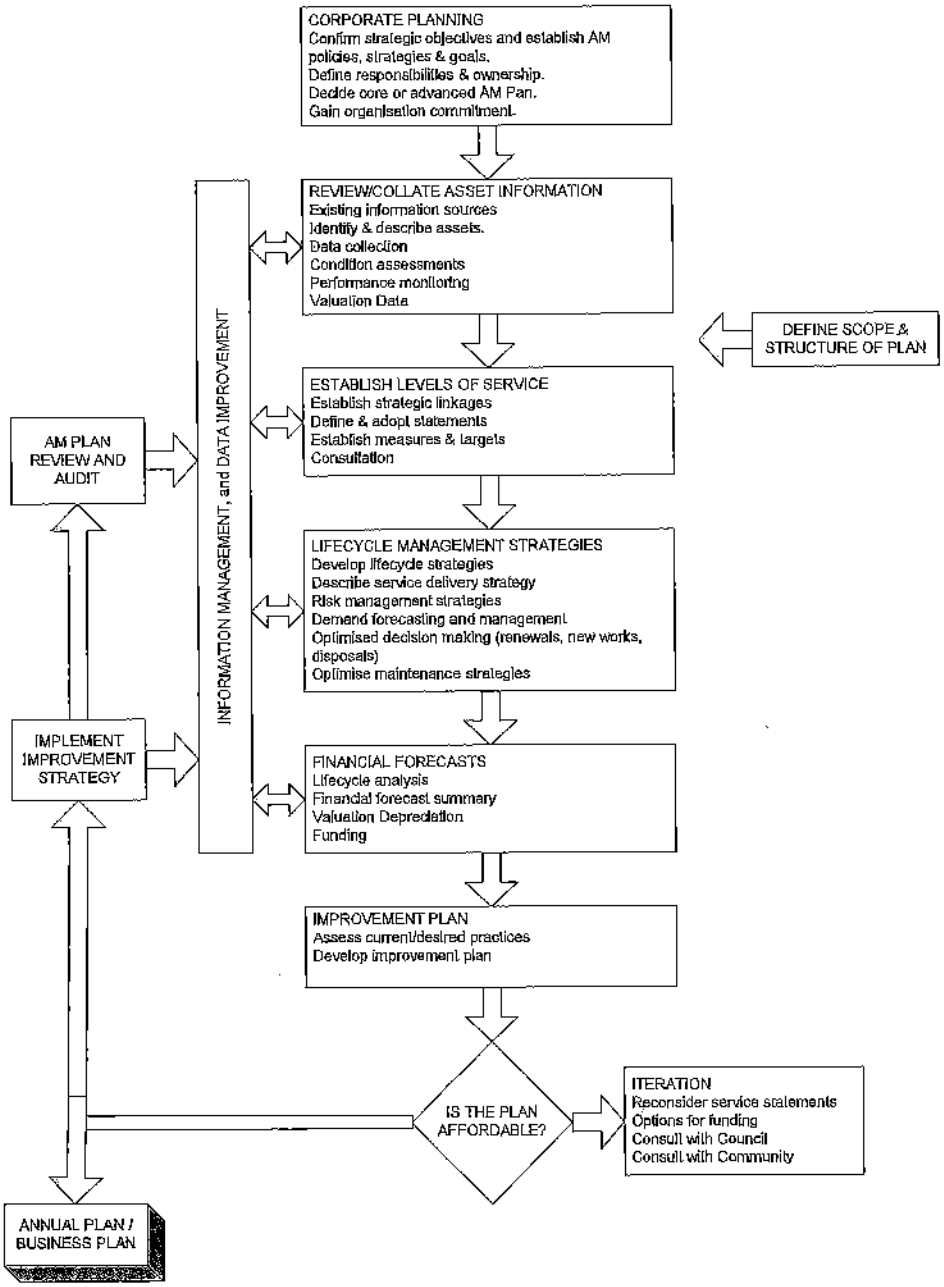
2.3 Plan Framework

Key elements of the plan are

- Levels of service – specifies the services and levels of service to be provided by the organisation,
- Future demand – how this will impact on future service delivery and how this is to be met,
- Life cycle management – how Council will manage its existing and future assets to provide defined levels of service,
- Financial summary – what funds are required to provide the defined services,
- Asset management practices,
- Monitoring – how the plan will be monitored to ensure it is meeting organisation's objectives,
- Asset management improvement plan.

A road map for preparing an asset management plan is shown below.

Road Map for preparing an Asset Management Plan
Source: IPWEA, 2006, IIMM, Fig 1.5.1, p 1.11.



2.4 Core and Advanced Asset Management

This asset management plan is prepared as a 'core' asset management plan over a 20 year planning period in accordance with the International Infrastructure Management Manual[3]. It is prepared to meet minimum legislative and organisational requirements for sustainable service delivery and long term financial planning and reporting. Core asset management is a 'top down' approach where analysis is applied at the 'system' or 'network' level.

Future revisions of this asset management plan will move towards 'advanced' asset management using a 'bottom up' approach for gathering asset information for individual assets to support the optimisation of activities and programs to meet agreed service levels in a financially sustainable manner.

2.5 Community Consultation

In all cases, the asset functionality and asset maintenance targets need to be clearly defined with the community (users) and the asset service provider (Council) to determine the "line of best fit" having regard to practicality and economics. That is, a level of service provided within a reasonable duty of care in an affordable financially sustainable manner that considers community expectations in regard to safety and overall condition of the stormwater network.

Consultation with the community has been developed as a two-way process in order to encourage feedback and to assist with the corporate decision making process in determining future and strategic direction.

Council operates a Local District Committee Structure for the towns and villages of Ross, Campbell Town, Avoca/Royal George, Perth, Cressy, Longford and Evandale that is designed to measure and compare community satisfaction with Council and its services and provides data to ensure continuous improvement. These forums provide Council advice of a wide range of issues in their area.

In addition the Council's Customer Request System is tracked to determine the level of dissatisfaction with Council's local stormwater systems.

Council uses this information in developing the Strategic Management Plan and in allocation of resources in the annual budget.

3. LEVELS OF SERVICE

3.1 Customer Research and Expectations

Council engineers and technical officers have traditionally worked to the provision of a level of service that is an assumed to be the community's expectation.

During any future consultation process Council will test this assumption to make sure that it is correct or amend it accordingly. The assumptions are that the stormwater network will provide for:

- Adequate drainage for roads and streets,
- Drainage for public open spaces to ensure the safety of the public and allow use of these areas at all times of year
- Adequate drainage for properties and businesses;
- Acceptable water quality at point of discharge;
- The use of Water Sensitive Urban Design Principles including re-use of stormwater and reducing the amount of stormwater discharged to the stormwater system.

In the future consideration could be given to formally research customer expectations with respect to stormwater drainage assets. This may be investigated for future updates of the asset management plan.

[3] IPWEA, 2011, IIMM.

3.2 Strategic and Corporate Goals

This asset management plan is prepared under the direction of Council's vision, mission, goals and objectives.

Council's vision is:

> Northern Midlands communities will be vibrant, sustainable and resilient, promoting their diversity and conserving the heritage values of our towns. Our competitive strengths will attract more people to the municipality, increase employment, business activity and property values. Our community pride will be based on co-operation and self help, evident by our leadership in environmental management. Each community's needs will be met with fair and appropriate quality services, creating high community satisfaction with Council's performance and high employee morale and well-being.

Council's mission is:

> Northern Midlands is committed to providing effective, innovative and efficient service to the community it represents. It aims to encourage active local communities of distinct character and to foster a sense of pride in the Northern Midlands area.

Relevant Council goals and objectives and how these are addressed in this asset management plan are:

Table 1.2: Council Goals and how these are addressed in this Plan

Goal	Objective	How Goal and Objectives are addressed in the Asset Management Plan (AMP)
Improved governance and accountability	To demonstrate to owners, customers and stakeholders that services are being managed sustainably and delivered effectively and efficiently	This will be addressed with the successful completion and adoption of this AMP by Council
Enhanced service management and customer satisfaction	To identify current service levels and target levels to work towards	This will be an ongoing task to be monitored and reviewed with future revisions of this AMP
Improved risk management	To identify and address all known significant risks to Stormwater assets	The Risk Management Plan will document a structured approach to the identification and management of significant risks
Improved financial efficiency	To model and identify financial efficiencies within the asset category	This will be an ongoing task to be monitored and reviewed with future revisions of this AMP
Sustainability	Improved decision making	To consider all viable options (including demand management) and all aspects of decisions

The organisation will exercise its duty of care to ensure public safety is accordance with the infrastructure risk management plan prepared in conjunction with this AM Plan. Management of infrastructure risks is covered in Section 5.2

3.3 Legislative Requirements

The organisation has to meet many legislative requirements including Australian and State legislation and State regulations. These include:

Table 3.3: Legislative Requirements

Legislation	Requirement
Local Government Act	Sets out role, purpose, responsibilities and powers of local governments including the preparation of a long term financial plan supported by asset management plans for sustainable service delivery.
Sewers and Drains Act 1954	An Act to make better provision for schemes and systems of drainage.
Local Government (Highways) Act and Regulations	An Act concerning the functions with respect to highways and certain other ways and places open to the public
Occupational Health, Safety and Welfare Act & Regulations	Setting out minimum requirements in regard to the safety and wellbeing of workers and the public in and around infrastructure work sites
Work, Health and Safety Act 2012	Sets out requirements in regards to the safety and wellbeing of workers and the public in and around work sites.
Road and Jetties Act (1935)	An Act to consolidate and amend certain enactments relating to roads and jetties and to make provision for the establishment and maintenance of aerodromes.

The organisation will exercise its duty of care to ensure public safety in accordance with the infrastructure risk management plan linked to this AM Plan. Management of risks is discussed in Section 5.2.

3.4 Levels of Service

Service levels are defined service levels in two terms, customer levels of service and technical levels of service.

Community Levels of Service measure how the community receives the service and whether the organisation is providing community value.

Community levels of service measures used in the asset management plan are:

Quality	How good is the service?
Function	Does it meet users' needs?
Safety/Responsiveness	Is the service over or under used?

The organisation's current and expected community service levels are detailed in Tables 3.4 and 3.5. Table 3.4 shows the agreed expected community levels of service based on resource levels in the current long-term financial plan and community consultation/engagement.

Table 3.4: Community Level of Service

Key Performance Measure	Level of Service	Performance Measure Process	Performance Target	Current Performance
COMMUNITY LEVELS OF SERVICE				
Quality	Provide stormwater drainage system that meets community expectations by adequate collection and disposal	Number of customer service requests / complaints	<1 per month	No. of reported incidents ??
Function	Drainage point for all properties in town areas	No of properties where there is no stormwater discharge point	1 in 500 properties have to pump stormwater from property	Nil properties not meeting standard
Safety	Minimise flooding of roads and properties and ponding of stormwater for long periods	Inspections during rainfall events – number of reports of inconvenience claims, health or ponding.	<5 per annum	No. of requests ?? pa
Responsiveness	Council's response to various community raised issues ranging from calls about problems, handling correspondence and service applications	(a) Provision of a 24 hour, 7 day per week call-out service to attend to issues (b) Percentage of issues responded to in set timeframes	100% of time 95% of time	
TECHNICAL LEVELS OF SERVICE				
Condition	Undertake inspections, routine maintenance tasks and repairs in a timely manner	Frequency of inspections, maintenance or repairs	Inspect every 24 months and repair within 3 months. Monthly cleaning of pits during autumn.	Not programmed
Accessibility	Ensure adequate stormwater drainage services are available within declared drainage districts	Number of reported property / road inundation events within serviced area following rain greater then 1in10 year event and discharge options exist	Flooding no more than one time in average 10 year period unless an upgrade or improvement program exists and a connection point or discharge option can be devised	Not currently measured
Cost Effectiveness	Provide services in a cost effective manner	Benchmarking against other councils or contractors	Validate cost of council compared to contractor undertaking works or cost to maintain system is < or = to that of other municipalities	On a case by case basis. No current benchmarking against other Councils.
Safety	Ensure stormwater infrastructure poses low risk to community and provides physical barriers or signage to identify and protect from hazards. Grates and covers are installed on stormwater entry pits.	Number of injury / damage claims, defect and condition survey results and site specific risk assessments	Less than 1 claim for compensation per 10 km of network and any high risks identified are addresses within 3 months	No currently measured

3.5 Technical Levels of Service

Technical Levels of Service - Supporting the community service levels are operational or technical measures of performance. These technical measures relate to the allocation of resources to service activities that the organisation undertakes to best achieve the desired community outcomes and demonstrate effective organisational performance.

Service and asset managers plan, implement and control technical service levels to influence the customer service levels.[4]

Table 3.5 shows the technical level of service expected to be provided under this AM Plan. The agreed sustainable position in the table documents the position agreed by the Council/Board following community consultation and trade-off of service levels performance, costs and risk within resources available in the long-term financial plan.

Table 3.5: Technical Levels of Service

Key Performance Measure	Level of Service	Performance Measure Process	Performance Target	Current Performance
TECHNICAL LEVELS OF SERVICE				
Condition	Undertake inspections, routine maintenance tasks and repairs in a timely manner	Frequency of inspections, maintenance or repairs	Inspect every 24 months and repair within 3 months. Monthly cleaning of pits during autumn.	Not programmed
Accessibility	Ensure adequate stormwater drainage services are available within declared drainage districts	Number of reported property / road inundation events within serviced area following rain greater then 1in10 year event and discharge options exist	Flooding no more than one time in average 10 year period unless an upgrade or improvement program exists and a connection point or discharge option can be devised	Not currently measured
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[4] IPWEA, 2011, IIMM, p 2.22

4. FUTURE DEMAND

4.1 Demand Drivers

Drivers affecting demand include population change, changes in demographics, seasonal factors, vehicle ownership rates, consumer preferences and expectations, technological changes, economic factors, agricultural practices, environmental awareness, etc.

4.2 Demand Forecast

The present position and projections for demand drivers that may impact future service delivery and utilisation of assets were identified and are documented in Table 4.3.

4.3 Demand Impact on Assets

The impact of demand drivers that may affect future service delivery and utilisation of assets are shown in Table 4.3.

Table 4.3: Demand Drivers, Projections and Impact on Services

Demand factor	Present position	Projection	Impact on services
Population	12,775 as at 31/12/2015		Increase in population require an extension of the stormwater system to drain new properties and businesses
Demographics	Median age of 40 as at June 2011	Continued increase in median age	Increased median age may lead to more unit developments which will increase pressure on the existing system
Climate Change	Can be hotter, wetter, and windier.	May increase seasonal extremes in rainfall, temperature, winds and pressure systems	What was once a 1 in 20 year system may be 1 in 10 year system. May require review of service levels and capital upgrades.
Density	Smaller land sizes	Likely to increase number of multiple tenancies, gated communities for retirees	Consider impact and possible overloading of stormwater assets
Planning Scheme	Revised Development Plans	Changes to zoning to facilitate new domestic subdivisions	Implications on existing infrastructure, consider need to redirect, detain, reuse, upgrade – or limit development
Water Quality	Limit structures to make improvements to public environmental awareness	Greater demand on treating stormwater runoff to higher standards	Increase in cost to install, maintain and replace a stormwater system that reduces pollution
Defective Plumbing connections to sewer	Number of occurrences where stormwater enters into the sewer system	Ben Lomond Water to require rectification	May increase costs and require extensions for collection of stormwater from previously unserviced areas.

4.4 Demand Management Plan

Demand for new services will be managed through a combination of managing existing assets, upgrading of existing assets and providing new assets to meet demand and demand management. Demand management practices include non-asset solutions, insuring against risks and managing failures.

Non-asset solutions focus on providing the required service without the need for the organisation to own the assets and management actions including reducing demand for the service, reducing the level of service (allowing some assets to deteriorate beyond current service levels) or educating customers to accept appropriate asset failures[5].

[5] IPWEA, 2011, IIMM, Table 3.4.1, p 3|58.

Examples of non-asset solutions include providing services from existing infrastructure such as aquatic centres and libraries that may be in another community area or public toilets provided in commercial premises.

Opportunities identified to date for demand management are shown in Table 4.4. Further opportunities will be developed in future revisions of this asset management plan.

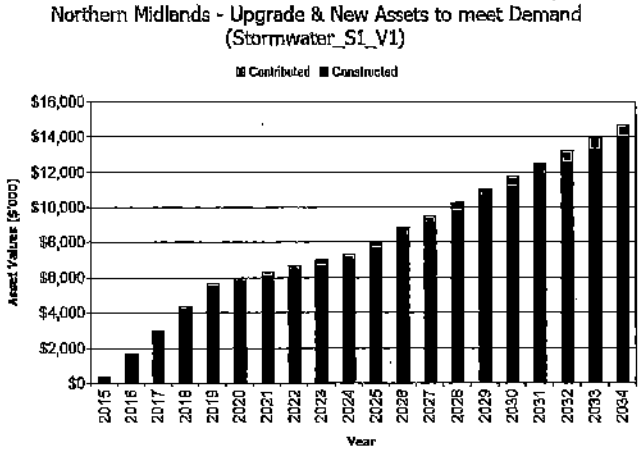
Table 4.4: Demand Management Plan Summary

Service Activity	Demand Management Plan
Development controls	Require land developers to assess the impact of their developments on the capacity of existing infrastructure and to upgrade it if required. Consider implementation of developer contribution for upgrade of existing council infrastructure to cope with increased inflow of proposed development (eg $ per new lot created). Also known as a "headworks charge". Consider measures to encourage greater level of on-site retention of stormwater (eg use of permeable paving, on-site retention systems etc). Consider greater restriction on developable land with respect to stormwater drainage issues.
Infrastructure design	Consider increasing the design standard of new / upgraded stormwater infrastructure Have to consider new/old infrastructure interface. e.g Investigate new construction techniques/materials such as open, permanent channels/swales in place of underground piping. Increase use of sediment/pollutant traps.
Renewal / Upgrade programming	Audit current system capacity to identify weaknesses in network. Continue to investigate alternative renewal treatments to lower lifecycle costs (eg pipe relining).

4.5 Asset Programs to meet Demand

The new assets required to meet growth will be acquired free of cost from land developments and constructed/acquired by the organisation. New assets constructed/acquired by the organisation are discussed in Section 5.5. The cumulative value of new contributed and constructed asset values are summarised in Figure 1.

Figure 1: Upgrade and New Assets to meet Demand



Acquiring these new assets will commit the organisation to fund ongoing operations, maintenance and renewal costs for the period that the service provided from the assets is required. These future costs are identified and considered in developing forecasts of future operations, maintenance and renewal costs in Section 5. *Projected expenditure after 10 years is based on average projected expenditure for the first 10 year period in the model.*

5. *LIFECYCLE MANAGEMENT PLAN*

The lifecycle management plan details how the organisation plans to manage and operate the assets at the agreed levels of service (defined in Section 3) while optimising life cycle costs.

5.1 Background Data

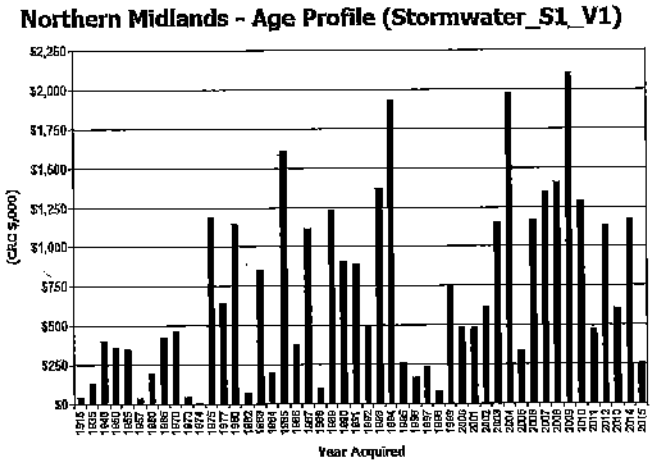
5.1.1 Physical parameters

The assets covered by this asset management plan are shown below (also refer Table 2.1).

- Mains 90.842 kms (2,690 individual assets)
- Pits, manholes etc 2,661 units

The age profile of the assets include in this AM Plan is shown in Figure 2.

Figure 2: Asset Age Profile



The data for age profile is sourced from Council's asset register. While ages of assets acquired prior to 1993 are largely based on estimates - this is considered to be accurate enough given the long lifecycle of stormwater assets.

5.1.2 Asset capacity and performance

The organisation's services are generally provided to meet design standards where these are available.

Locations where deficiencies in service performance are known are detailed in Table 5.1.2.

Table 5.1.2: Known Service Performance Deficiencies

Location	Service Deficiency
Drummond Street, Perth	An open drain maintained by State Growth runs along the southern side of Drummond Street. Due to the flat nature of the land in the Drummond Street area it is not possible to drain surface water from some properties to the stormwater system and localised flooding occurs in the yards of these properties.
West Perth	Refer West Perth Drainage Study
Translink Precinct	Refer Translink Stormwater Improvement Study

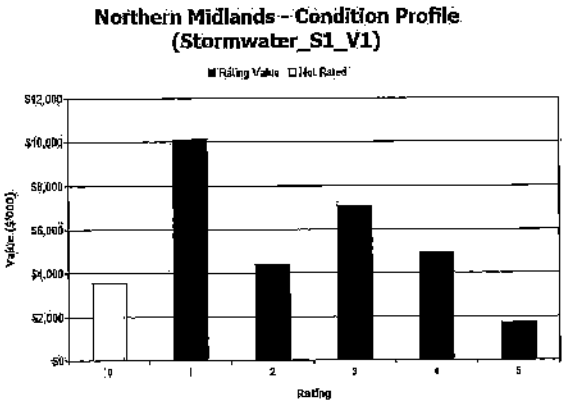
The above service deficiencies were identified from customer requests and inspections carried out by Council officers during rainfall events.

5.1.3 Asset condition

Council had not undertaken an asset condition of its underground stormwater infrastructure, although given the relative newness of the systems in their lifecycle it is expected condition rating will general be rates as 3 or better. For this reason the assets remaining life (useful life minus age) has been used as the most appropriate basis on which to model future renewals expenditure. It should be noted that, whilst this approach provides robust results for the network as a whole, it is less than ideal when considering any particular individual asset.

The condition profile of our assets is shown in Figure 3.

Fig 3: Asset Condition Profile



Condition is measured using a 1 – 5 grading system[6] as detailed in Table 5.1.3.

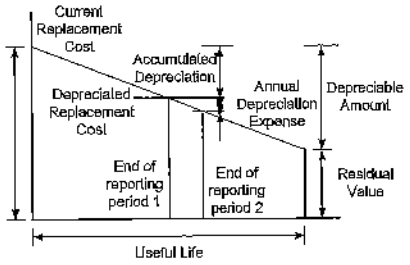
Table 5.1.3: Simple Condition Grading Model

Condition Grading	Description of Condition
1	**Very Good:** only planned maintenance required
2	**Good:** minor maintenance required plus planned maintenance
3	**Fair:** significant maintenance required
4	**Poor:** significant renewal/rehabilitation required
5	**Very Poor:** physically unsound and/or beyond rehabilitation

5.1.4 Asset valuations

The value of assets recorded in the asset register as at 1 July 2015 covered by this asset management plan is shown below. Assets were last revalued at 1 July 2015. Assets are valued at fair value to replace service capacity.

Replacement Cost	$34,045,073
Depreciable Amount	$25,593,208
Depreciated Replacement Cost[7]	$25,593,208
Annual Depreciation Expense	$403,693



Useful lives were reviewed in June 2013 by Pitt & Sherry (consultants).

[6] IPWEA, 2011, IIMM, Sec 2.5.4, p 2|79.
[7] Also reported as Written Down Current Replacement Cost (WDCRC).

Key assumptions made in preparing the valuations were:

- Depth of stormwater mains, and
- Age of stormwater mains.

There were no major changes from previous valuations.

Various ratios of asset consumption and expenditure have been prepared to help guide and gauge asset management performance and trends over time.

Rate of Annual Asset Consumption (Depreciation/Depreciable Amount)	1.6%
Rate of Annual Asset Renewal (Capital renewal exp/Depreciable amount)	0.20%

In 2015/16 the organisation plans to renew assets at 14.6% of the rate they are being consumed and will be increasing its asset stock by 1.3% in the year.

5.1.5 Historical Data

Council has made substantial improvement to urban stormwater systems over recent years and the expenditure breakdown for the last 5 year period is detailed in Table 5.1.5.

Table 5.1.5: Stormwater Asset Capital Expenditure History

Year	New Assets	Replacement Value
2010/11	$70,082	$404,161
2011/12	$146,450	$86,161
2012/13	$257,278	$77,681
2013/14	$299,248	$nil
2014/15	$584,563	$nil
TOTAL	**$1,357,621**	**$568,003**

5.2 Infrastructure Risk Management Plan

An assessment of risks[8] associated with service delivery from infrastructure assets has identified critical risks that will result in loss or reduction in service from infrastructure assets or a 'financial shock' to the organisation. The risk assessment process identifies credible risks, the likelihood of the risk event occurring, the consequences should the event occur, develops a risk rating, evaluates the risk and develops a risk treatment plan for non-acceptable risks.

Critical risks, being those assessed as 'Very High' - requiring immediate corrective action and 'High' – requiring prioritised corrective action identified in the Infrastructure Risk Management Plan, together with the estimated residual risk after the selected treatment plan is operational are summarised in Table 5.2. These risks are reported to management and Council.

Table 5.2: Critical Risks and Treatment Plans

Asset at Risk	What can Happen	Risk Rating (VH, H)	Risk Treatment Plan
Property flooding	Significant property damage/ minor injury	VH	Replace aged or damaged infrastructure Regular inspections of pits and grates to prevent blockages.

			Assesment of all new developments to ensure that the capacity of the system is sufficient.
Road flooding	Traffic delays, vehicular accident	H	Replace aged or damaged infrastructure Regular inspections of pits and grates to prevent blockages. Assesment of all new developments to ensure that the capacity of the system is sufficient.
Flooding or ponding in public open space	Minor injuries (e.g. slips trips or falls)	H	Regular inspection of pits and grates to remove blockages. Inspections during and after rainfall events
Discharge of pollutants into river system	Risk to downstream of river Damage to marine life and river eco-systems	H	Installation of gross pollutant traps if required Encourage implementation of water sensitive urban design principles Impose planning conditions on potential polluters to control pollutants at source with interceptor traps or other control methods
Road failure due to failure of stormwater system	Pavement failure / defects	H	Regular inspections Replacement of aged or damage infrastructure
Property (private and council)	Flooding due to restriction, capacity shortfall or excessive flow	Medium	Timely clearing of restrictions, sandbags, owner awareness, system upgrades
Roads (due to stormwater system failure or excessive water)	Isolation, aquaplaning, damage to roads, person or property	Medium	This is a regular occurrence in some communities and learned to be lived with. Road users to be responsible for their own actions regarding driving conditions and circumstances. Council to consider system upgrades, installation of signage, repairs etc.
Persons	Health issues due to stormwater in sewerage system causing sewer overflows, injury or drowning	Medium	Flooding generally poses no greater risk to community than normal function of creeks, drains, rivers etc. Responsible adults are expected to appropriately educate and manage children's exposure and decision making in relation to risks and their own behaviour.

Note * The residual risk is the risk remaining after the selected risk treatment plan is operational.

5.3 Routine Operations and Maintenance Plan

Operations include regular activities to provide services such as public health, safety and amenity, eg cleansing, street sweeping, grass mowing and street lighting.

Routine maintenance is the regular on-going work that is necessary to keep assets operating, including instances where portions of the asset fail and need immediate repair to make the asset operational again.

5.3.1 Operations and Maintenance Plan

Maintenance includes reactive, planned and cyclic maintenance work activities.

Reactive maintenance is unplanned repair work carried out in response to service requests and management/supervisory directions.

Planned maintenance is repair work that is identified and managed through a maintenance management system (MMS). MMS activities include inspection, assessing the condition against failure/breakdown experience, prioritising, scheduling, actioning the work and reporting what was done to develop a maintenance history and improve maintenance and service delivery performance.

Cyclic maintenance is replacement of higher value components/sub-components of assets that is undertaken on a regular cycle including repainting, building roof replacement, etc. This work generally falls below the capital/maintenance threshold.

Actual past maintenance expenditure is shown in Table 5.3.1.

Table 5.3.1: Maintenance Expenditure Trends

Year	Maintenance Expenditure	
	Planned and Specific	Unplanned
2011/12	$60,953	Not separated
2012/13	$88,620	Not separated
2013/14	$109,643	Not separated
2014/15	$85,174	Not separated

Maintenance expenditure levels are considered to be adequate to meet projected service levels, which may be less than or equal to current service levels. Where maintenance expenditure levels are such that will result in a lesser level of service, the service consequences and service risks have been identified and service consequences highlighted in this AM Plan and service risks considered in the Infrastructure Risk Management Plan.

Assessment and prioritisation of reactive maintenance is undertaken by Council staff using experience and judgement.

5.3.2 Operations and Maintenance Strategies

The organisation will operate and maintain assets to provide the defined level of service to approved budgets in the most cost-efficient manner. The operation and maintenance activities include:

- Scheduling operations activities to deliver the defined level of service in the most efficient manner,
- Undertaking maintenance activities through a planned maintenance system to reduce maintenance costs and improve maintenance outcomes. Undertake cost-benefit analysis to determine the most cost-effective split between planned and unplanned maintenance activities (50 – 70% planned desirable as measured by cost),
- Maintain a current infrastructure risk register for assets and present service risks associated with providing services from infrastructure assets and reporting Very High and High risks and residual risks after treatment to management and Council/Board,
- Review current and required skills base and implement workforce training and development to meet required operations and maintenance needs,
- Review asset utilisation to identify underutilised assets and appropriate remedies, and over utilised assets and customer demand management options,
- Maintain a current hierarchy of critical assets and required operations and maintenance activities,
- Develop and regularly review appropriate emergency response capability,
- Review management of operations and maintenance activities to ensure Council is obtaining best value for resources used.

Critical Assets

Critical assets are those assets which have a high consequence of failure but not necessarily a high likelihood of failure. By identifying critical assets and critical failure modes, organisations can target and refine investigative activities, maintenance plans and capital expenditure plans at the appropriate time.

Operations and maintenances activities may be targeted to mitigate critical assets failure and maintain service levels. These activities may include increased inspection frequency, higher maintenance intervention levels, etc. Critical assets failure modes and required operations and maintenance activities are detailed in Table 5.3.2.1.

Table 5.3.2.1: Critical Assets and Service Level Objectives

Critical Assets	Critical Failure Mode	Operations & Maintenance Activities
Mains	Not yet identified	
Pits	Not yet identified	

Standards and specifications

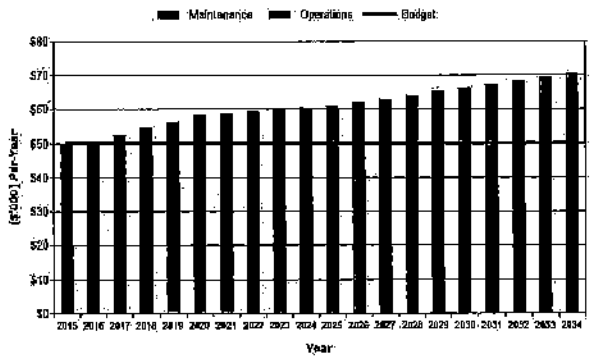
Maintenance work is carried out in accordance with the following Standards and Specifications.

- Municipal Standards
- Municipal Specifications
- Subdivison guidelines
- Plumbing Codes (AS 3500 etc.)
- IPWEA Municipal Standards and Specification

5.3.3 Summary of future operations and maintenance expenditures

Future operations and maintenance expenditure is forecast to trend in line with the value of the asset stock as shown in Figure 4. Note that all costs are shown in current 2015 dollar values (ie real values).

Figure 4: Projected Operations and Maintenance Expenditure



Deferred maintenance, ie works that are identified for maintenance and unable to be funded are to be included in the risk assessment and analysis in the infrastructure risk management plan.

Maintenance is funded from the operating budget where available. This is further discussed in Section 6.2.

5.4 Renewal/Replacement Plan

Renewal and replacement expenditure is major work which does not increase the asset's design capacity but restores, rehabilitates, replaces or renews an existing asset to its original or lesser required service potential. Work over and above restoring an asset to original service potential is upgrade/expansion or new works expenditure.

5.4.1 Renewal plan

Assets requiring renewal/replacement are identified from one of three methods provided in the 'Expenditure Template'.

- Method 1 uses Asset Register data to project the renewal costs using acquisition year and useful life to determine the renewal year, or
- Method 2 uses capital renewal expenditure projections from external condition modelling systems (such as Pavement Management Systems), or
- Method 3 uses a combination of average *network renewals* plus *defect repairs* in the *Renewal Plan* and *Defect Repair Plan* worksheets on the 'Expenditure template'.

Method 1 was used for this asset management plan.

The useful lives of assets used to develop projected asset renewal expenditures are shown in Table 5.4.1. Asset useful lives were last reviewed on 1 July 2013.[9]

Table 5.4.1: Useful Lives of Assets

Asset (Sub)Category	Useful life
Mains	100 Years
Pits	80 Years

5.4.2 Renewal and Replacement Strategies

The organisation will plan capital renewal and replacement projects to meet level of service objectives and minimise infrastructure service risks by:

- Planning and scheduling renewal projects to deliver the defined level of service in the most efficient manner,
- Undertaking project scoping for all capital renewal and replacement projects to identify:
    - the service delivery 'deficiency', present risk and optimum time for renewal/replacement,
    - the project objectives to rectify the deficiency,
    - the range of options, estimated capital and life cycle costs for each options that could address the service deficiency,
    - and evaluate the options against evaluation criteria adopted by the organisation, and
    - select the best option to be included in capital renewal programs,
- Using 'low cost' renewal methods (cost of renewal is less than replacement) wherever possible,
- Maintain a current infrastructure risk register for assets and service risks associated with providing services from infrastructure assets and reporting Very High and High risks and residual risks after treatment to management and Council/Board,
- Review current and required skills base and implement workforce training and development to meet required construction and renewal needs,
- Maintain a current hierarchy of critical assets and capital renewal treatments and timings required ,
- Review management of capital renewal and replacement activities to ensure Council is obtaining best value for resources used.

Renewal ranking criteria

Asset renewal and replacement is typically undertaken to either:

- Ensure the reliability of the existing infrastructure to deliver the service it was constructed to facilitate (eg replacing a bridge that has a 5 t load limit), or
- To ensure the infrastructure is of sufficient quality to meet the service requirements (eg roughness of a road).[10]

It is possible to get some indication of capital renewal and replacement priorities by identifying assets or asset groups that:

- Have a high consequence of failure,
- Have a high utilisation and subsequent impact on users would be greatest,
- The total value represents the greatest net value to the organisation,
- Have the highest average age relative to their expected lives,
- Are identified in the AM Plan as key cost factors,
- Have high operational or maintenance costs, and
- Where replacement with modern equivalent assets would yield material savings.[11]

The ranking criteria used to determine priority of identified renewal and replacement proposals is detailed in Table 5.4.2.

Table 5.4.2: Renewal and Replacement Priority Ranking Criteria

Criteria	Weighting	Ranking
Risk/Safety Risk priority is assessed in accordance with Council's Infrastructure Risk Management process which is based on probability and consequence of failure	25%	0 - 4
Technical Technical priority is assessed based on the project's ability to improve stormwater drainage capacity	20%	0 - 5
Corporate Corporate priority is linked to whether the projects are commitments through a Council resolution or included in Council policy and strategic plan.	20%	0 - 3
Social Community Impact Priority based on amount of community benefit through project completion	15%	0 - 3
Environment Environmental impact is assessed based on the significants of the surrounding environment.	20%	0 - 3
Total	100%	

Renewal will be undertaken using 'low-cost' renewal methods where practical. The aim of 'low-cost' renewals is to restore the service potential or future economic benefits of the asset by renewing the assets at a cost less than replacement cost.

Examples of low cost renewal include directional drilling, which avoids the additional costs associated with excavation in sensitive areas such as roads or private properties.

Renewal and replacement standards

Renewal work is carried out in accordance with the following Standards and Specifications.

- Sewers and Drains act 1954
- Local Government Highways Act
- Northern Midlands Council Standard Drawings
- State Growth standards and specifications
- Traffic Control AS1742.3 – Manual of uniform Traffic Control Devices. Part 3 Traffic Control Devices for Works on Roads

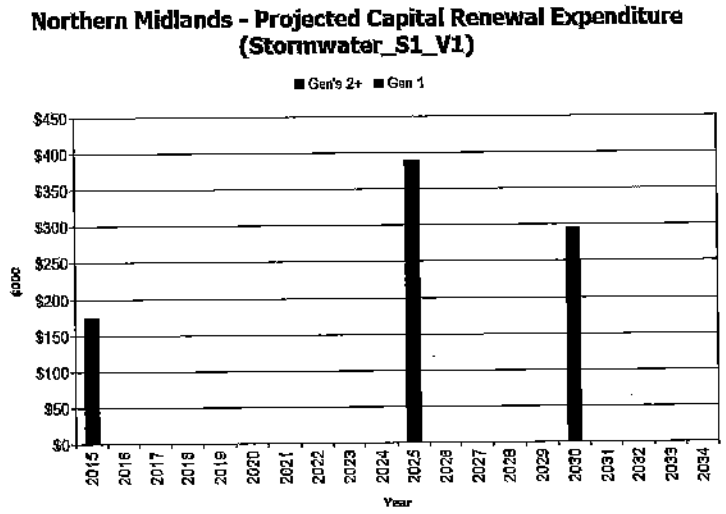
5.4.3 Summary of future renewal and replacement expenditure

[10] IPWEA, 2011, IIMM, Sec 3.4.4, p 3|60.
[11] Based on IPWEA, 2011, IIMM, Sec 3.4.5, p 3|66.

Projected future renewal and replacement expenditures are forecast to increase over time as the asset stock increases from growth. The expenditure is summarised in Fig 5. Note that all amounts are shown in real values.

The projected capital renewal and replacement program is shown in Appendix B.

Fig 5: Projected Capital Renewal and Replacement Expenditure



Deferred renewal and replacement, ie those assets identified for renewal and/or replacement and not scheduled in capital works programs are to be included in the risk analysis process in the risk management plan.

Renewals and replacement expenditure in the organisation's capital works program will be accommodated in the long term financial plan. This is further discussed in Section 6.2.

5.5 Creation/Acquisition/Upgrade Plan

New works are those works that create a new asset that did not previously exist, or works which upgrade or improve an existing asset beyond its existing capacity. They may result from growth, social or environmental needs. Assets may also be acquired at no cost to the organisation from land development. These assets from growth are considered in Section 4.4.

5.5.1 Selection criteria

New assets and upgrade/expansion of existing assets are identified from various sources such as councillor/director or community requests, proposals identified by strategic plans or partnerships with other organisations. Candidate proposals are inspected to verify need and to develop a preliminary renewal estimate. Verified proposals are ranked by priority and available funds and scheduled in future works programmes. The priority ranking criteria is detailed Table 5.4.2.

5.5.2 Capital Investment Strategies

The organisation will plan capital upgrade and new projects to meet level of service objectives by:

- Planning and scheduling capital upgrade and new projects to deliver the defined level of service in the most efficient manner,
- Undertake project scoping for all capital upgrade/new projects to identify:
    - the service delivery 'deficiency', present risk and required timeline for delivery of the upgrade/new asset,

- the project objectives to rectify the deficiency including value management for major projects,
- the range of options, estimated capital and life cycle costs for each options that could address the service deficiency,
- management of risks associated with alternative options,
- and evaluate the options against evaluation criteria adopted by Council, and
- select the best option to be included in capital upgrade/new programs,

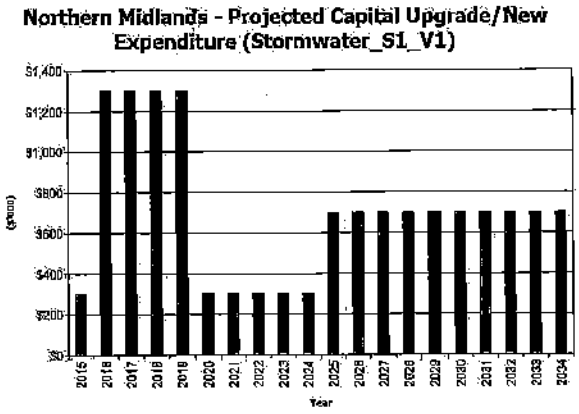
- Review current and required skills base and implement training and development to meet required construction and project management needs,
- Review management of capital project management activities to ensure Council is obtaining best value for resources used.

Standards and specifications for new assets and for upgrade/expansion of existing assets are the same as those for renewal shown in Section 5.4.2.

5.5.3 Summary of future upgrade/new assets expenditure

Projected upgrade/new asset expenditures are summarised in Fig 6. The projected upgrade/new capital works program is shown in Appendix C. All amounts are shown in real values.

Fig 6: Projected Capital Upgrade/New Asset Expenditure



Expenditure on new assets and services in the organisation's capital works program will be accommodated in the long term financial plan. This is further discussed in Section 6.2.

5.6 Disposal Plan

Disposal includes any activity associated with disposal of a decommissioned asset including sale, demolition or relocation. Assets identified for possible decommissioning and disposal are shown in Table 5.6, together with estimated annual savings from not having to fund operations and maintenance of the assets. These assets will be further reinvestigated to determine the required levels of service and see what options are available for alternate service delivery, if any. Any revenue gained from asset disposals is accommodated in Council's long term financial plan.

Where cashflow projections from asset disposals are not available, these will be developed in future revisions of this asset management plan.

Table 5.6: Assets Identified for Disposal

Asset	Reason for Disposal	Timing	Disposal Expenditure	Operations & Maintenance Annual Savings

Pipes & pits	Redundancy due to duplication	As needed	Nil revenue	Nil savings
Pipes & pits	Redundancy due to incorrect location or depth	As needed	Nil revenue	Nil savings
Pipes & pits	Redundancy due to upgrades (eg, new kerb and channel in a street)	As needed	Nil revenue	Nil savings
Pipes & pits	Redundancy due to capacity shortfall	As needed	Nil revenue	Nil savings

5.7 Service Consequences and Risks

The organisation has prioritised decisions made in adopting this AM Plan to obtain the optimum benefits from its available resources. Decisions were made based on the development of 3 scenarios of AM Plans.

Scenario 1 - What we would like to do based on asset register data

Scenario 2 – What we should do with existing budgets and identifying level of service and risk consequences (ie what are the operations and maintenance and capital projects we are unable to do, what is the service and risk consequences associated with this position). This may require several versions of the AM Plan.

Scenario 3 – What we can do and be financially sustainable with AM Plans matching long-term financial plans.

The development of scenario 1 and scenario 2 AM Plans provides the tools for discussion with the Council/Board and community on trade-offs between what we would like to do (scenario 1) and what we should be doing with existing budgets (scenario 2) by balancing changes in services and service levels with affordability and acceptance of the service and risk consequences of the trade-off position (scenario 3).

5.7.1 What we cannot do

There are some operations and maintenance activities and capital projects that are unable to be undertaken within the next 10 years. These include:

- Project not yet identified
- Project not yet identified.

5.7.2 Service consequences

Operations and maintenance activities and capital projects that cannot be undertaken will maintain or create service consequences for users. These include:

- Not yet identified
- Not yet identified

5.7.3 Risk consequences

The operations and maintenance activities and capital projects that cannot be undertaken may maintain or create risk consequences for the organisation. These include:

- Not yet identified
- Not yet identified

These risks have been included with the Infrastructure Risk Management Plan summarised in Section 5.2 and risk management plans actions and expenditures included within projected expenditures.

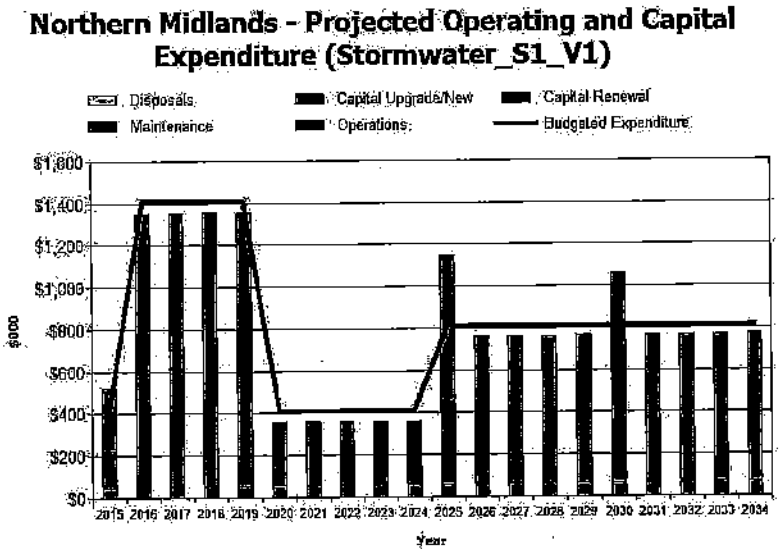
6. FINANCIAL SUMMARY

This section contains the financial requirements resulting from all the information presented in the previous sections of this asset management plan. The financial projections will be improved as further information becomes available on desired levels of service and current and projected future asset performance.

6.1 Financial Statements and Projections

The financial projections are shown in Fig 7 for projected operating (operations and maintenance) and capital expenditure (renewal and upgrade/expansion/new assets). Note that all costs are shown in real values.

Fig 7: Projected Operating and Capital Expenditure



6.1.1 Sustainability of service delivery

There are four key indicators for service delivery sustainability that have been considered in the analysis of the services provided by this asset category, these being the asset renewal funding ratio, long term life cycle costs/expenditures and medium term projected/budgeted expenditures over 5 and 10 years of the planning period.

Asset Renewal Funding Ratio

Asset Renewal Funding Ratio[12] 291%

The Asset Renewal Funding Ratio is the most important indicator and reveals that over the next 10 years, Council is forecasting that it will have all of the funds required for the optimal renewal and replacement of its assets.

Long term - Life Cycle Cost

Life cycle costs (or whole of life costs) are the average costs that are required to sustain the service levels over the asset life cycle. Life cycle costs include operations and maintenance expenditure and asset consumption (depreciation

[12] AIFMG, 2012, Version 1.3, Financial Sustainability Indicator 4, Sec 2.6, p 2.16

expense). The life cycle cost for the services covered in this asset management plan is $467,000 per year (average operations and maintenance expenditure plus depreciation expense projected over 10 years).

Life cycle costs can be compared to life cycle expenditure to give an initial indicator of affordability of projected service levels when considered with age profiles. Life cycle expenditure includes operations, maintenance and capital renewal expenditure. Life cycle expenditure will vary depending on the timing of asset renewals. The life cycle expenditure over the 10 year planning period is $110,000 per year (average operations and maintenance plus capital renewal budgeted expenditure in LTFP over 10 years).

A shortfall between life cycle cost and life cycle expenditure is the life cycle gap. The life cycle gap for services covered by this asset management plan is negative (surplus) $357,000 per year (-ve = gap, +ve = surplus).

Life cycle expenditure is 24% of life cycle costs.

The life cycle costs and life cycle expenditure comparison highlights any difference between present outlays and the average cost of providing the service over the long term. If the life cycle expenditure is less than that life cycle cost, it is most likely that outlays will need to be increased or cuts in services made in the future.

Knowing the extent and timing of any required increase in outlays and the service consequences if funding is not available will assist organisations in providing services to their communities in a financially sustainable manner. This is the purpose of the asset management plans and long term financial plan.

Medium term – 10 year financial planning period

This asset management plan identifies the projected operations, maintenance and capital renewal expenditures required to provide an agreed level of service to the community over a 10 year period. This provides input into 10 year financial and funding plans aimed at providing the required services in a sustainable manner.

These projected expenditures may be compared to budgeted expenditures in the 10 year period to identify any funding shortfall. In a core asset management plan, a gap is generally due to increasing asset renewals for ageing assets.

The projected operations, maintenance and capital renewal expenditure required over the 10 year planning period is $73,000 on average per year.

Estimated (budget) operations, maintenance and capital renewal funding is $110,000 on average per year giving a 10 year funding surplus of $37,000 per year. This indicates that Council expects to have 150% of the projected expenditures needed to provide the services documented in the asset management plan.

Medium Term – 5 year financial planning period

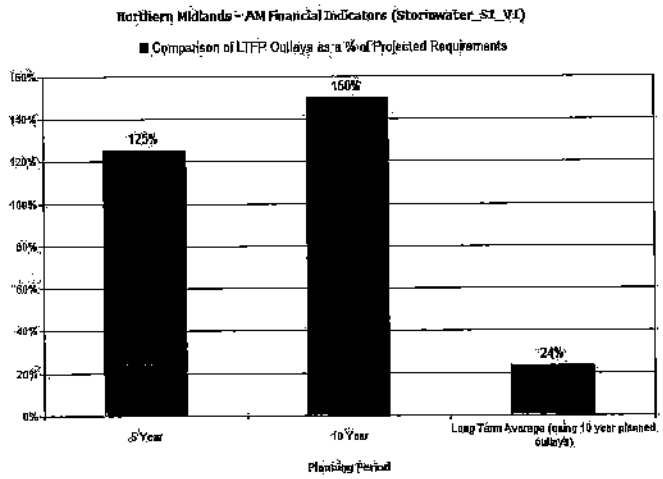
The projected operations, maintenance and capital renewal expenditure required over the first 5 years of the planning period is $88,000 on average per year.

Estimated (budget) operations, maintenance and capital renewal funding is $110,000 on average per year giving a 5 year funding surplus of $22,000. This indicates that Council expects to have 125% of projected expenditures required to provide the services shown in this asset management plan.

Asset management financial indicators

Figure 7A shows the asset management financial indicators over the 10 year planning period and for the long term life cycle.

Figure 7A: Asset Management Financial Indicators



Providing services from infrastructure in a sustainable manner requires the matching and managing of service levels, risks, projected expenditures and financing to achieve a financial indicator of approximately 1.0 for the first years of the asset management plan and ideally over the 10 year life of the Long Term Financial Plan.

Figure 8 shows the projected asset renewal and replacement expenditure over the 20 years of the AM Plan. The projected asset renewal and replacement expenditure is compared to renewal and replacement expenditure in the capital works program, which is accommodated in the long term financial plan

Figure 8: Projected and LTFP Budgeted Renewal Expenditure

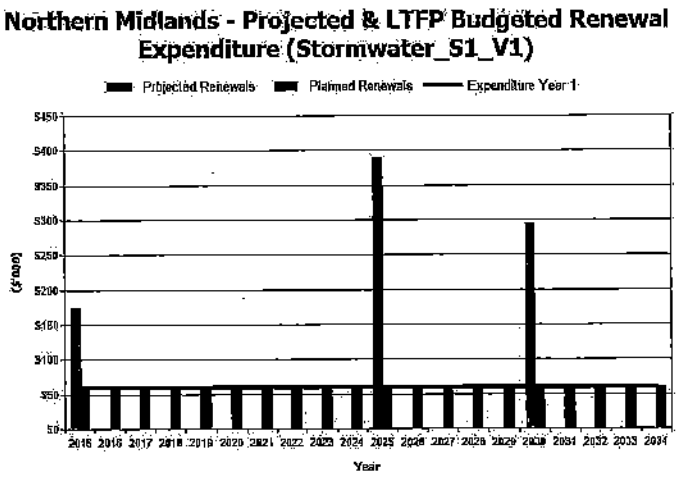


Table 6.1.1 shows the shortfall between projected renewal and replacement expenditures and expenditure accommodated in long term financial plan. Budget expenditures accommodated in the long term financial plan or extrapolated from current budgets are shown in Appendix D.

Table 6.1.1: Projected and LTFP Budgeted Renewals and Financing Shortfall

Year	Projected Renewals ($000)	LTFP Renewal Budget ($000)	Renewal Financing Shortfall ($000) (-ve Gap, +ve Surplus)	Cumulative Shortfall ($000) (-ve Gap, +ve Surplus)
2015	$175	$60	-$115	-$115
2016	$0	$60	$60	-$55
2017	$0	$60	$60	$5
2018	$0	$60	$60	$65
2019	$0	$60	$60	$125
2020	$0	$60	$60	$185
2021	$0	$60	$60	$245
2022	$0	$60	$60	$305
2023	$0	$60	$60	$365
2024	$0	$60	$60	$425
2025	$390	$60	-$330	$96
2026	$0	$60	$60	$156
2027	$0	$60	$60	$216
2028	$0	$60	$60	$276
2029	$0	$60	$60	$336
2030	$294	$60	-$234	$102
2031	$0	$60	$60	$162
2032	$0	$60	$60	$222
2033	$0	$60	$60	$282
2034	$0	$60	$60	$342

Note: A negative shortfall indicates a financing gap, a positive shortfall indicates a surplus for that year.

Providing services in a sustainable manner will require matching of projected asset renewal and replacement expenditure to meet agreed service levels with the corresponding capital works program accommodated in the long term financial plan.

A gap between projected asset renewal/replacement expenditure and amounts accommodated in the LTFP indicates that further work is required on reviewing service levels in the AM Plan (including possibly revising the LTFP) before finalising the asset management plan to manage required service levels and funding to eliminate any funding gap.

We will manage any 'gap' by developing this asset management plan to provide guidance on future service levels and resources required to provide these services, and review future services, service levels and costs with the community.

6.1.2 Projected expenditures for long term financial plan

Table 6.1.2 shows the projected expenditures for the 10 year long term financial plan.

Expenditure projections are in 2015 real values.

Table 6.1.2: Projected Expenditures for Long Term Financial Plan ($000)

Year	Operations ($000)	Maintenance ($000)	Projected Capital Renewal ($000)	Capital Upgrade/ New ($000)	Disposals ($000)
2015	$0	$50	$175	$300	$0
2016	$0	$50	$0	$1,300	$0
2017	$0	$52	$0	$1,300	$0
2018	$0	$54	$0	$1,300	$0
2019	$0	$56	$0	$1,300	$0
2020	$0	$58	$0	$300	$0
2021	$0	$59	$0	$300	$0

2022	$0	$59	$0	$300	$0
2023	$0	$60	$0	$300	$0
2024	$0	$60	$0	$300	$0
2025	$0	$61	$390	$700	$0
2026	$0	$62	$0	$700	$0
2027	$0	$63	$0	$700	$0
2028	$0	$64	$0	$700	$0
2029	$0	$65	$0	$700	$0
2030	$0	$66	$294	$700	$0
2031	$0	$67	$0	$700	$0
2032	$0	$68	$0	$700	$0
2033	$0	$69	$0	$700	$0
2034	$0	$70	$0	$700	$0

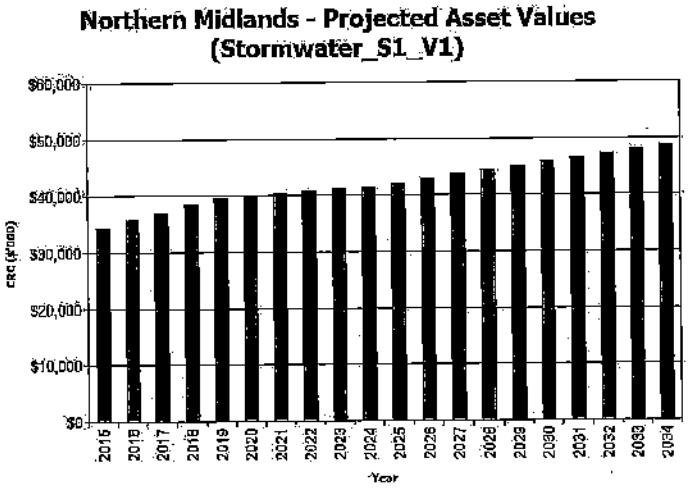
6.2 Funding Strategy

After reviewing service levels, as appropriate to ensure ongoing financial sustainability projected expenditures identified in Section 6.1.2 will be accommodated in the Council's 10 year long term financial plan.

6.3 Valuation Forecasts

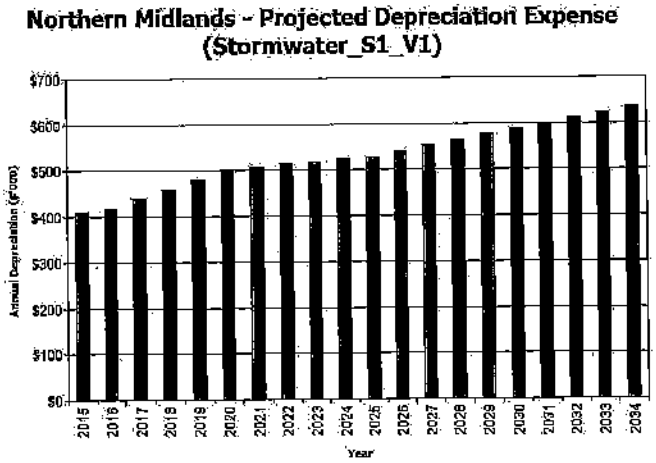
Asset values are forecast to increase as additional assets are added to the asset stock from construction and acquisition by Council and from assets constructed by land developers and others and donated to Council. Figure 9 shows the projected replacement cost asset values over the planning period in real values.

Figure 9: Projected Asset Values



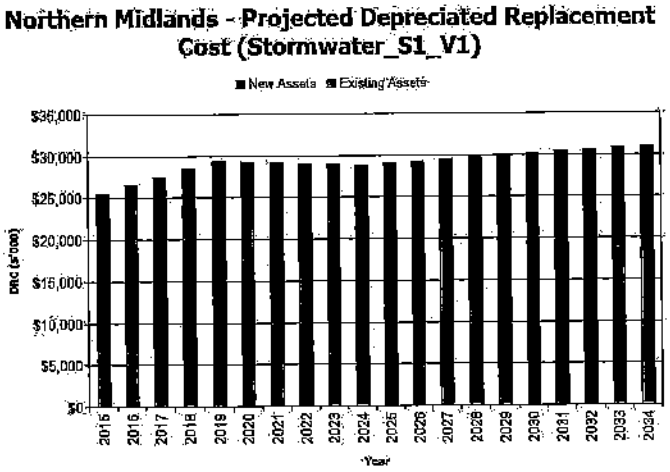
Depreciation expense values are forecast in line with asset values as shown in Figure 10.

Figure 10: Projected Depreciation Expense



The depreciated replacement cost will vary over the forecast period depending on the rates of addition of new assets, disposal of old assets and consumption and renewal of existing assets. Forecast of the assets' depreciated replacement cost is shown in Figure 11. The depreciated replacement cost of contributed and new assets is shown in the darker colour and in the lighter colour for existing assets.

Figure 11: Projected Depreciated Replacement Cost



6.4 Key Assumptions made in Financial Forecasts

This section details the key assumptions made in presenting the information contained in this asset management plan and in preparing forecasts of required operating and capital expenditure and asset values, depreciation expense and carrying amount estimates. It is presented to enable readers to gain an understanding of the levels of confidence in the data behind the financial forecasts.

Key assumptions made in this asset management plan and risks that these may change are shown in Table 6.4.

Table 6.4: Key Assumptions made in AM Plan and Risks of Change

Key Assumptions	Risks of Change to Assumptions

▪ Average population growth over the planning period to be consistent with current level	Minimal effect on AM Plan
▪ Population density to remain reasonably stable	Minimal effect on AM Plan
▪ Asset construction costs to remain stable in real terms (current dollars)	Minimal effect on AM Plan

6.5 Forecast Reliability and Confidence

The expenditure and valuations projections in this AM Plan are based on best available data. Currency and accuracy of data is critical to effective asset and financial management. Data confidence is classified on a 5 level scale[13] in accordance with Table 6.5.

Table 6.5: Data Confidence Grading System

Confidence Grade	Description
A Highly reliable	Data based on sound records, procedures, investigations and analysis, documented properly and recognised as the best method of assessment. Dataset is complete and estimated to be accurate ± 2%
B Reliable	Data based on sound records, procedures, investigations and analysis, documented properly but has minor shortcomings, for example some of the data is old, some documentation is missing and/or reliance is placed on unconfirmed reports or some extrapolation. Dataset is complete and estimated to be accurate ± 10%
C Uncertain	Data based on sound records, procedures, investigations and analysis which is incomplete or unsupported, or extrapolated from a limited sample for which grade A or B data are available. Dataset is substantially complete but up to 50% is extrapolated data and accuracy estimated ± 25%
D Very Uncertain	Data is based on unconfirmed verbal reports and/or cursory inspections and analysis. Dataset may not be fully complete and most data is estimated or extrapolated. Accuracy ± 40%
E Unknown	None or very little data held.

The estimated confidence level for and reliability of data used in this AM Plan is shown in Table 6.5.1.

Table 6.5.1: Data Confidence Assessment for Data used in AM Plan

Data	Confidence Assessment	Comment
Demand drivers	Reliable	
Growth projections	Reliable	
Operations expenditures	Highly reliable	
Maintenance expenditures	Highly reliable	
Projected Renewal exps. - Asset values	Reliable	
- Asset residual values	Reliable	
- Asset useful lives	Uncertain	
- Condition modelling	Uncertain	
- Network renewals	Uncertain	
- Defect repairs	Uncertain	
Upgrade/New expenditures	Reliable	
Disposal expenditures	Uncertain	

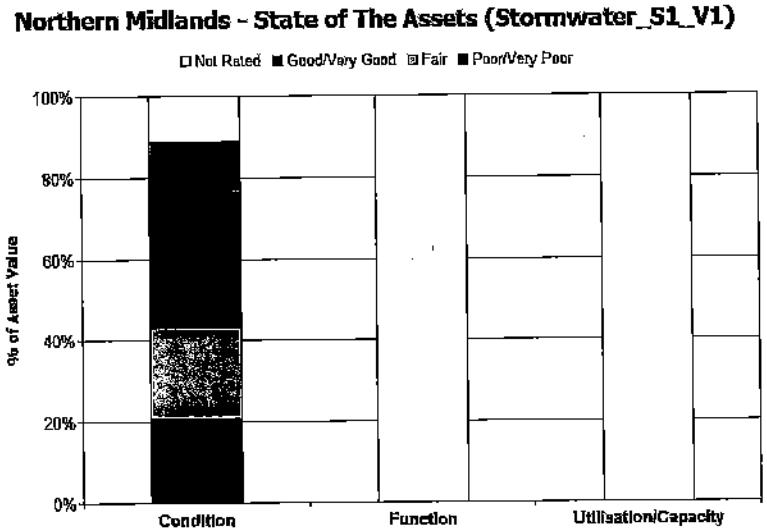
Over all data sources the data confidence is assessed as medium confidence level for data used in the preparation of this AM Plan.

Accuracy of future financial forecasts may be improved in future revisions of this stormwater asset management plan by the following actions - Capital Works programs to be reviewed with preliminary designs.

[13] IPWEA, 2011, IIMM, Table 2.4.6, p 2|59.

Figure 13 shows a picture of the State of the Northern Midlands Council stormwater assets as at the start of the planning period. Figure 13 shows the percentage of asset value rated as being in very good/good, fair and poor/very poor for their condition, function and utilisation/capacity.

Figure 13: State of the Assets



7. PLAN IMPROVEMENT AND MONITORING

7.1 Status of Asset Management Practices

7.1.1 Accounting and financial systems

The Corporate Services Department is responsible for the set up and operation of Council's financial systems. Council operates OpenOffice Solution (Finesse) software to manage its accounting functions. This system includes a fully integrated creditor, debtor, payroll, general ledger, receipting modules. The system has a fully integrated asset system however it is only used for fleet operating management.

Council is required to prepare its annual financial report in accordance with Australian Accounting Standards and other authoritative pronouncements of the Australian Accounting Standards Board and the Local Government Act 1993 (as amended).

AASB 116 Property, plant and equipment, AASB 136 Impairment of Assets, AASB 140 Investment Property and AASB 5 Non-current Assets held for Sale and Discontinued Operations are applied when preparing council's annual financial statements.

The cost method of accounting is used for the initial recording of all assets acquired. Cost is determined as the fair value of the assets given as consideration plus cost incidental to the acquisition including architects fees, engineering design fees, consulting fees, administration charges and all other costs incurred in getting the assets ready for use. In addition the cost of non-current assets constructed by Council, 'cost' includes all material used in construction, direct labour used on the project and an appropriate proportion of overheads.

Non-monetary assets received in the form of grants and donations are recognised as assets and revenues at their fair value at the date of receipt. Fair value means the amount for which an asset could be exchanged between knowledgeable, willing parties in an arm's length transaction.

Generally maintenance, repair costs and minor renewals are charged as expenditure when incurred unless the total value exceeds 10% of the assets written down value or increase the economic life by more than 10%. Road reseals, reconstructions, and resheeting are capitalised. Road shouldering, roadside drainage and hotmix patching are expensed.

Expenditure is capitalised when it provides a future economic benefits which extends beyond one year and can be measured reliably. A $5,000 limit applies to the recognition of the acquisition of new stormwater assets.

7.1.2 Accounting standards and regulations

The asset management policies and references used by Northern Midlands Council include:

- Northern Midlands Asset Management Policy – March 2016
- Northern Midlands Asset Management Strategy – March 2016
- International Infrastructure Management Manual, Association of Local Government Engineering new Zealand & Institute of Public Works Engineering Australia 2006
- Australian Infrastructure Financial Management Guidelines, Institute of Public Works Engineering Australia 2009

7.1.3 Capital/maintenance threshold

Capital/maintenance asset thresholds are detailed in the Northern Midlands Council Accounting Policy.

7.1.4 Asset management system

Northern Midlands Council currently has four software systems utilised for managing asset data. These are: TechnologyOne 'ECM' Customer Request System; OpenOffice 'Community - Finesse' Financial System; Intramaps; Geographic Information System for electronic mapping; and 'Moloney Asset Management' System for data storage and asset registers. These four systems contribute to the overall management of the long term planning of its infrastructure assets in order to:

Know what and where its assets are;

Know their condition;

Establish suitable operational, maintenance and renewal regimes to suit the assets and level of services required of them by present and future customers;

Establish asset function and asset maintenance to meet the needs of the present and future customers;

Review maintenance practices and optimising operational procedures;

Implement management strategies for resources and work programs;

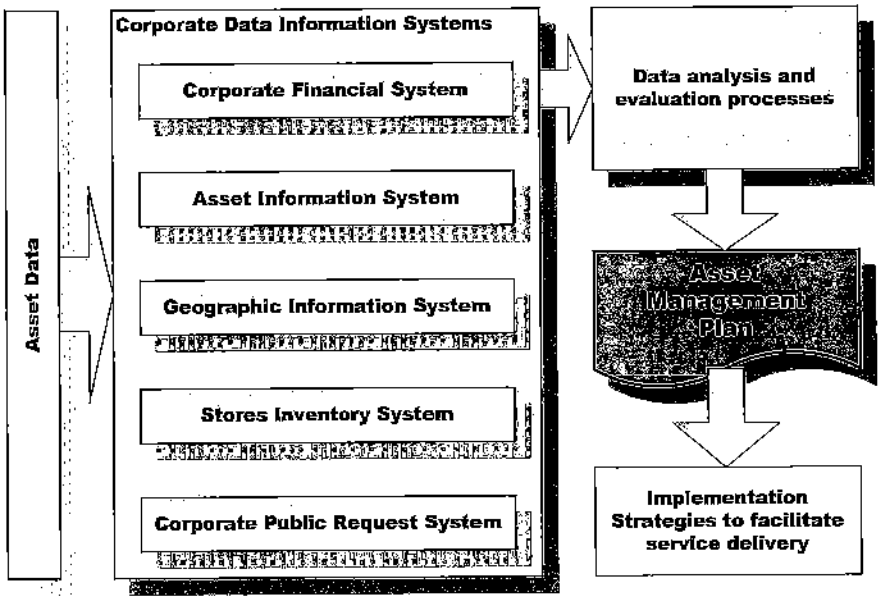
Improve risk management techniques; and

Identify the true cost of operations and maintenance and predict future capital investments and maintenance expenditure required to optimise the asset function and lifecycle.

The Moloney Asset Management System is not linked to the accounting system, however it is constantly reconciled to the Finesse system.

The ongoing responsibility of the Asset Management system is primarily that of the Asset Management Officer, including the annual valuation adjustments, upkeep of the existing and new/acquired assets, and depreciation calculations of the assets.

The following chart illustrates the relationship of the information systems:



7.1.5 Information Flow Requirements and Processes

The key information flows into this asset management plan are:

The asset register data on size, age, value, remaining life of the network;

The unit rates for categories of work/material;

The adopted service levels;

Projections of various factors affecting future demand for services;

Correlations between maintenance and renewal, including decay models;

Data on new assets acquired by council.

The key information flows from this asset management plan are:

The assumed Works Program and trends;

The resulting budget, valuation and depreciation projections;

The useful life analysis.

These will impact the Long Term Financial Plan, Strategic Business Plan, annual budget and departmental business plans and budgets.

One of the essential aspects of asset management is to maintain data records to ensure that they are up to date and accurate. Asset Managers are responsible for updating and maintaining the asset data to meet the organisations operational and financial requirements in delivering efficient and effective asset management.

7.2 Improvement Plan

The asset management improvement plan generated from this asset management plan is shown in Table 7.2.

Table 7.2: Improvement Plan

Task No	Task	Responsibility	Resources Required	Timeline
1	Review condition assessments to increase condition data for better understanding of asset useful lives			
2	Improved system capital works upgrade/new expenditure with project ranking consistent with agreed criteria			
3	Investigation to determine reporting requirements in regard to the breakdown of maintenance expenditure			
4	Improving and automating the data collection/ inspection processes			
5	Formalise and document the data entry process specific to each asset			
6	Review need for Pollutant traps at strategic river outfalls			
7	Catchment modelling to identify deficiencies			
8	Assess benefits of piping any open drain systems			
9	Completion of Stormwater Management Plans and assessment of recommendations/issues raised			
10				

7.3 Monitoring and Review Procedures

This asset management plan will be reviewed during annual budget preparation and amended to recognise any changes in service levels and/or resources available to provide those services as a result of the budget decision process.

The Plan has a life of 4 years and is due for revision and updating within 2 years of each Council election.

7.4 Performance Measures

The effectiveness of the asset management plan can be measured in the following ways:

- The degree to which the required projected expenditures identified in this asset management plan are incorporated into Council's long term financial plan,
- The degree to which 1-5 year detailed works programs, budgets, business plans and organisational structures take into account the 'global' works program trends provided by the asset management plan,
- The degree to which the existing and projected service levels and service consequences (what we cannot do), risks and residual risks are incorporated into the Council's Strategic Plan and associated plans,
- **The Asset Renewal Funding Ratio achieving the target of 1.0.**

8. REFERENCES

IPWEA, 2006, 'International Infrastructure Management Manual', Institute of Public Works Engineering Australasia, Sydney, www.ipwea.org/IIMM

IPWEA, 2008, 'NAMS.PLUS Asset Management', Institute of Public Works Engineering Australasia, Sydney, www.ipwea.org/namsplus.

IPWEA, 2009, 'Australian Infrastructure Financial Management Guidelines', Institute of Public Works Engineering Australasia, Sydney, www.ipwea.org/AIFMG.

IPWEA, 2011, 'International Infrastructure Management Manual', Institute of Public Works Engineering Australasia, Sydney, www.ipwea.org/IIMM

Sample Council, 'Strategic Plan 20XX – 20XX',

Sample Council, 'Annual Plan and Budget'.

9. APPENDICES

Appendix A Maintenance Response Levels of Service

Appendix B Projected 10 year Capital Renewal and Replacement Works Program

Appendix C Projected 10 year Capital Upgrade/New Works Program

Appendix D LTFP Budgeted Expenditures Accommodated in AM Plan

Appendix E Abbreviations

Appendix F Glossary

Appendix G Translink Stormwater Upgrade

Appendix A Maintenance Response Levels of Service

Key Performance Measure	Level of Service	Performance Measure Process	Performance Target	Current Performance
COMMUNITY LEVELS OF SERVICE				
Quality	Provide stormwater drainage system that meets community expectations by adequate collection and disposal	Number of customer service requests / complaints	<1 per month	No. of reported incidents ??
Function	Drainage point for all properties in town areas	No of properties where there is no stormwater discharge point	1 in 500 properties have to pump stormwater from property	Nil properties not meeting standard
Safety	Minimise flooding of roads and properties and ponding of stormwater for long periods	Inspections during rainfall events – number of reports of inconvenience claims, health or ponding.	<5 per annum	No. of requests ?? pa
Responsiveness	Council's response to various community raised issues ranging from calls about problems, handling correspondence and service applications	(a) Provision of a 24 hour, 7 day per week call-out service to attend to issues (b) Percentage of issues responded to in set timeframes	100% of time 95% of time	
TECHNICAL LEVELS OF SERVICE				
Condition	Undertake inspections, routine maintenance tasks and repairs in a timely manner	Frequency of inspections, maintenance or repairs	Inspect every 24 months and repair within 3 months. Monthly cleaning of pits during autumn.	Not programmed
Accessibility	Ensure adequate stormwater drainage services are available within declared drainage districts	Number of reported property / road inundation events within serviced area following rain greater then 1in10 year event and discharge options exist	Flooding no more than one time in average 10 year period unless an upgrade or improvement program exists and a connection point or discharge option can be devised	Not currently measured
Cost Effectiveness	Provide services in a cost effective manner	Benchmarking against other councils or contractors	Validate cost of council compared to contractor undertaking works or cost to maintain system is < or = to that of other municipalities	On a case by case basis. No current benchmarking against other Councils.
Safety	Ensure stormwater infrastructure poses low risk to community and provides physical barriers or signage to identify and protect from hazards. Grates and covers are installed on stormwater entry pits.	Number of injury / damage claims, defect and condition survey results and site specific risk assessments	Less than 1 claim for compensation per 10 km of network and any high risks identified are addresses within 3 months	No currently measured

Appendix B **Projected 10 year Capital Renewal and Replacement Works Program**

Northern Midlands - Report 6 - Appendix B 10 year Renewal & Replacement Program (Stormwater_S1_V1)

Asset ID	Sub Category	[illegible]	[illegible]	[illegible]	Rem Life (Years)	Planned Renewal Year	[illegible]	Useful Life (Years)
2374	Pipe			Bridge Street	0	2015	$1,296	80
479	Pipe			CNR High/Grant Street	0	2015	$4,549	80
478	Pipe			CNR High/Grant Street	0	2015	$3,499	80
180	Pipe			High Street	0	2015	$6,317	80
1089	Pipe			High Street	0	2015	$2,615	80
1088	Pipe			High Street	0	2015	$252	80
1087	Pipe			High Street	0	2015	$1,082	80
1086	Pipe			High Street	0	2015	$1,195	80
485	Pipe			High Street	0	2015	$11,325	80
2703	Pipe			Mulgrave Street	0	2015	$3,059	80
844	Pipe			Old Bridge Road	0	2015	$5,217	80
843	Pipe			Old Bridge Road	0	2015	$11,355	80
74.1	Pipe			Smith Street	0	2015	$12,522	80
74.2	Pipe		28	Smith Street	0	2015	$2,210	80
2356	Pipe		61	Forster Street	0	2015	$16,536	80
1412	Pipe	112		Summit Drive	0	2015	$2,394	80
1254	Pipe	22		Wilson Street	0	2015	$442	80
1255	Pipe	23		Wilson Street	0	2015	$1,657	80
1256	Pipe	24		Wilson Street	0	2015	$9,207	80
1257	Pipe	25		Wilson Street	0	2015	$368	80
1258	Pipe	26		Wilson Street	0	2015	$2,026	80
2386	Pipe	47	48	King Street	0	2015	$1,399	80
2383	Pipe	49	50	King Street	0	2015	$3,333	80
2380	Pipe	51	52	King Street	0	2015	$6,629	80
2378	Pipe	53		Bridge Street	0	2015	$1,158	80
179	Pipe	87		High Street	0	2015	$17,435	80
2013	Pit			Arthur Street	0	2015	$2,148	100
478	Pit			CNR High/Grant Street	0	2015	$2,148	100
180	Pit			High Street	0	2015	$2,864	100
1089	Pit			High Street	0	2015	$1,841	100
1088	Pit			High Street	0	2015	$1,841	100
1087	Pit			High Street	0	2015	$1,841	100
1086	Pit			High Street	0	2015	$1,841	100
485	Pit			High Street	0	2015	$2,148	100
2547	Pit			Main Street	0	2015	$2,148	100
2703	Pit			Mulgrave Street	0	2015	$2,148	100
844	Pit			Old Bridge Road	0	2015	$2,148	100
843	Pit			Old Bridge Road	0	2015	$2,148	100
74.1	Pit			Smith Street	0	2015	$2,148	100
74.2	Pit		28	Smith Street	0	2015	$2,148	100
1412	Pit	112		Summit Drive	0	2015	$1,841	100
1254	Pit	22		Wilson Street	0	2015	$1,841	100
1255	Pit	23		Wilson Street	0	2015	$1,841	100
1256	Pit	24		Wilson Street	0	2015	$1,841	100
1257	Pit	25		Wilson Street	0	2015	$1,841	100
1258	Pit	26		Wilson Street	0	2015	$1,841	100
2449	Pit	39		Wellington Street	0	2015	$2,148	100