



**NATIONAL LITTER INDEX
2016 - 2017**

WESTERN AUSTRALIAN RESULTS

**KEEP AUSTRALIA BEAUTIFUL NATIONAL ASSOCIATION
September 2017**

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Western Australia

Key Messages and Insights

- 22.7% less litter than counted in the 2016/17 monitor.
- Reductions in cigarette litter (-35.1%), takeaway food packaging (-14.8%), other paper (-17.5%), other plastic (-20.4%) and general other (-20.8%) were the main contributors to the significant fall in litter recorded.
- Mix shifts in litter monitored resulted in the volumetric equivalent falling by 31.7%.
- Less litter recorded in car parks (-19.8%), highways (-20.6%), industrial precincts (-14.1%), residential streets (-28.2%), retail precincts (-53.8%) and shopping centres (-16.6%). The most significant increases were recorded at recreational parks (+40.3%) and on beaches (+3.7%).
- Industrial precincts recorded the highest loads on an item counted basis whereas major roads/highways recorded the highest loads on a volumetric basis

Survey Specifics

The 2016/17 litter monitor of 151 sites across WA recorded 22.7% less litter than counted in 2015/16 monitor. All major categories experienced falls in litter levels, with significant decreases seen in cigarette litter, takeaway food packaging, other paper, other plastic and general other litter items.

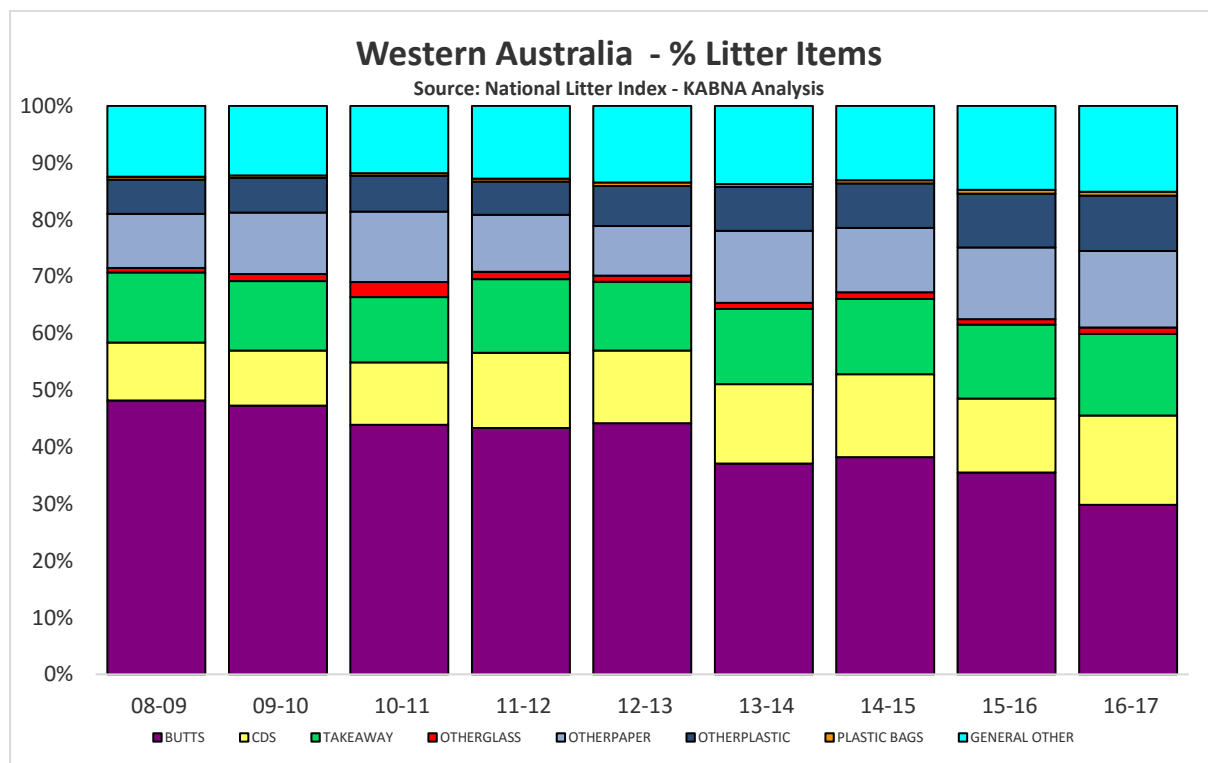
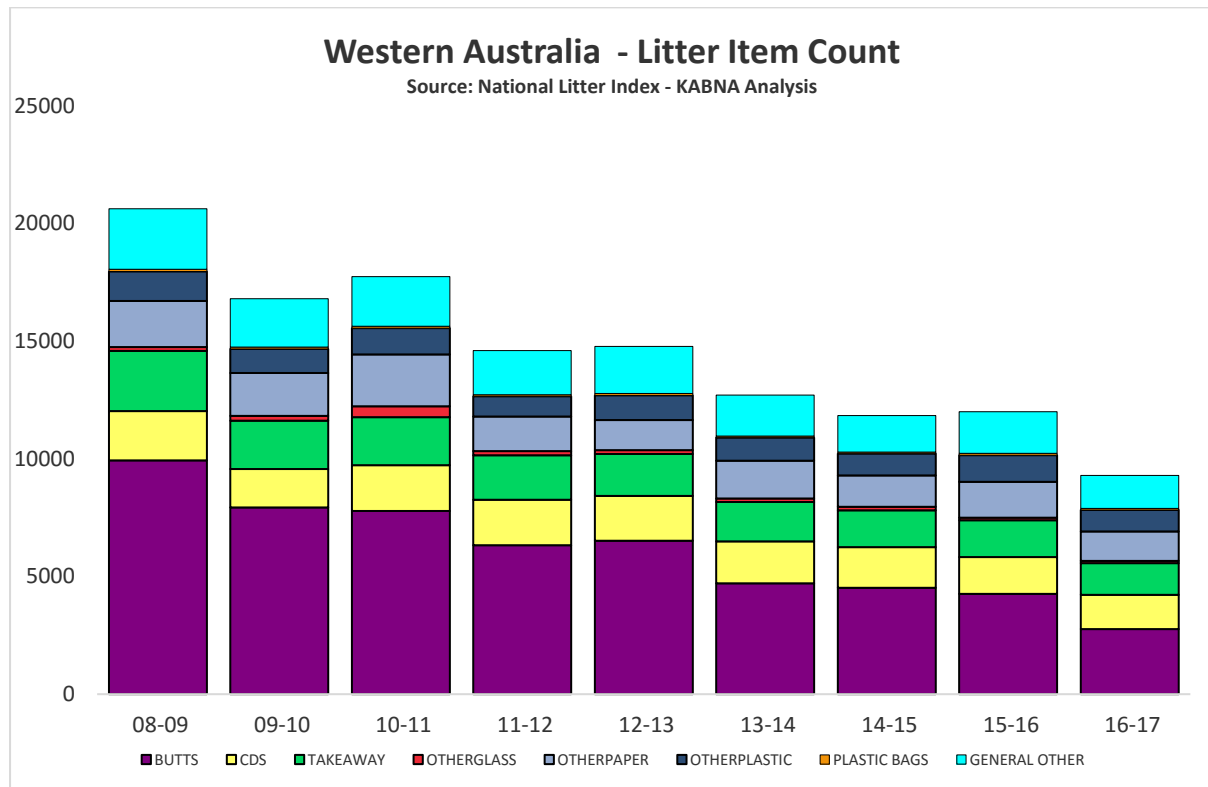
Site Types	Number Surveyed			Area Surveyed (sq m)
	Suburban	Regional	Total	
Recreational Swimming	10	6	16	8,000
Car Parks	19	4	23	34,365
Major Roads/Highways	17	10	27	87,565
Industrial Precincts	13	4	17	14,985
Recreational Parks	7	6	13	26,000
Residential Streets	21	5	26	35,870
Retail Precincts	10	5	15	13,556
Strip Shopping Precincts	12	2	14	15,625
TOTAL	109	42	151	235,966

Litter Counts

As shown in the following table, the 2016/17 litter monitor recorded 22.7% less litter than counted in the 2015/16 monitor. Reductions in cigarette litter (down 35.1%), takeaway food packaging (down 14.8%), other paper (down 17.5%), other plastic (down 20.4%) and general other (down 20.8%) were the main contributors to the significant fall in litter counted. The most notable decreases within the general other category were decreases in metal pieces, various miscellaneous rubber and foil pieces, newspapers/magazines, packages and boxes, shopper docket and related shopper paper.

WA		Items								
		Beach	Car Park	Highway	Industrial	Recreational Park	Residential	Retail	Shopping Centre	Total
WA 2016/17	Butts & Packaging	116	618	446	400	73	193	486	439	2770
	Beverage Containers	24	39	1164	86	30	35	21	10	1407
	Takeaway Food & Beverage	86	180	504	149	118	130	96	74	1334
	Other Glass	4	7	63	16		10	6	1	106
	Other Paper	49	103	593	139	84	145	72	68	1250
	Other Plastic	37	96	368	139	55	128	48	38	906
	General Other	43	115	701	220	64	164	58	71	1433
	Plastic Bags	6	2	45	9	4	11	8	4	86
	Illegal Dumping		1	8	2	1	2			13
	GRAND TOTAL	363	1159	3890	1157	427	814	792	703	9304
WA 2015/16	Butts & Packaging	138	833	625	506	63	296	1250	555	4265
	Beverage Containers	11	49	1250	101	8	41	37	8	1503
	Takeaway Food & Beverage	83	196	662	153	86	176	135	78	1566
	Other Glass	1	13	67	10		10	8	2	111
	Other Paper	36	113	800	167	54	162	106	78	1515
	Other Plastic	33	115	511	167	40	166	59	49	1139
	General Other	46	123	922	224	52	256	117	71	1809
	Plastic Bags	4	3	51	21	1	18	2	2	100
	Illegal Dumping		1	14	1	1	11	2	1	29
	GRAND TOTAL	350	1444	4899	1347	304	1134	1714	843	12035
% REDUCTION	Butts & Packaging	15.9%	25.8%	28.6%	21.0%	-15.1%	35.0%	61.1%	20.9%	35.1%
	Beverage Containers	-118.2%	20.6%	6.9%	14.9%	-300.0%	14.8%	44.6%	-18.8%	6.4%
	Takeaway Food & Beverage	-3.6%	8.2%	23.9%	2.3%	-37.4%	26.2%	28.9%	5.2%	14.8%
	Other Glass	-250.0%	46.2%	6.0%	-55.0%		5.0%	26.7%	50.0%	5.0%
	Other Paper	-34.7%	8.9%	25.9%	16.8%	-55.6%	10.2%	32.5%	13.5%	17.5%
	Other Plastic	-13.8%	17.0%	28.0%	16.5%	-36.3%	23.2%	19.5%	23.5%	20.4%
	General Other	5.5%	6.5%	23.9%	-1.8%	-22.1%	36.0%	50.9%		20.8%
	Plastic Bags	-57.1%	33.3%	11.9%	58.5%	-250.0%	41.7%	-400.0%	-166.7%	13.6%
	Illegal Dumping			40.7%	-50.0%		86.4%	100.0%	100.0%	54.4%
	Grand Total (excluding illegal dumping)	-3.7%	19.8%	20.6%	14.2%	-40.4%	27.6%	53.8%	16.5%	22.6%
GRAND TOTAL	-3.7%	19.8%	20.6%	14.1%	-40.3%	28.2%	53.8%	16.6%	22.7%	
DIFFERENCE	Butts & Packaging	-22	-215	-179	-106	10	-104	-764	-116	-1496
	Beverage Containers	13	-10	-86	-15	23	-6	-17	2	-97
	Takeaway Food & Beverage	3	-16	-158	-4	32	-46	-39	-4	-232
	Other Glass	3	-6	-4	6		-1	-2	-1	-6
	Other Paper	13	-10	-208	-28	30	-17	-35	-11	-265
	Other Plastic	5	-20	-143	-28	15	-39	-12	-12	-233
	General Other	-3	-8	-221	-4	12	-92	-60		-376
	Plastic Bags	2	-1	-6	-12	3	-8	6	3	-14
	Illegal Dumping			-6	1		-10	-2	-1	-16
	Grand Total (excluding illegal dumping)	13	-286	-1004	-191	123	-311	-921	-139	-2716
GRAND TOTAL	13	-286	-1010	-190	123	-320	-922	-140	-2731	

Over the longer term, WA has been experiencing steadily declining litter levels, driven primarily by reductions in cigarette litter. In the 2016/17 litter monitor, this trend continued observing the lowest levels of cigarette litter counted on record.



Volumetric Impacts

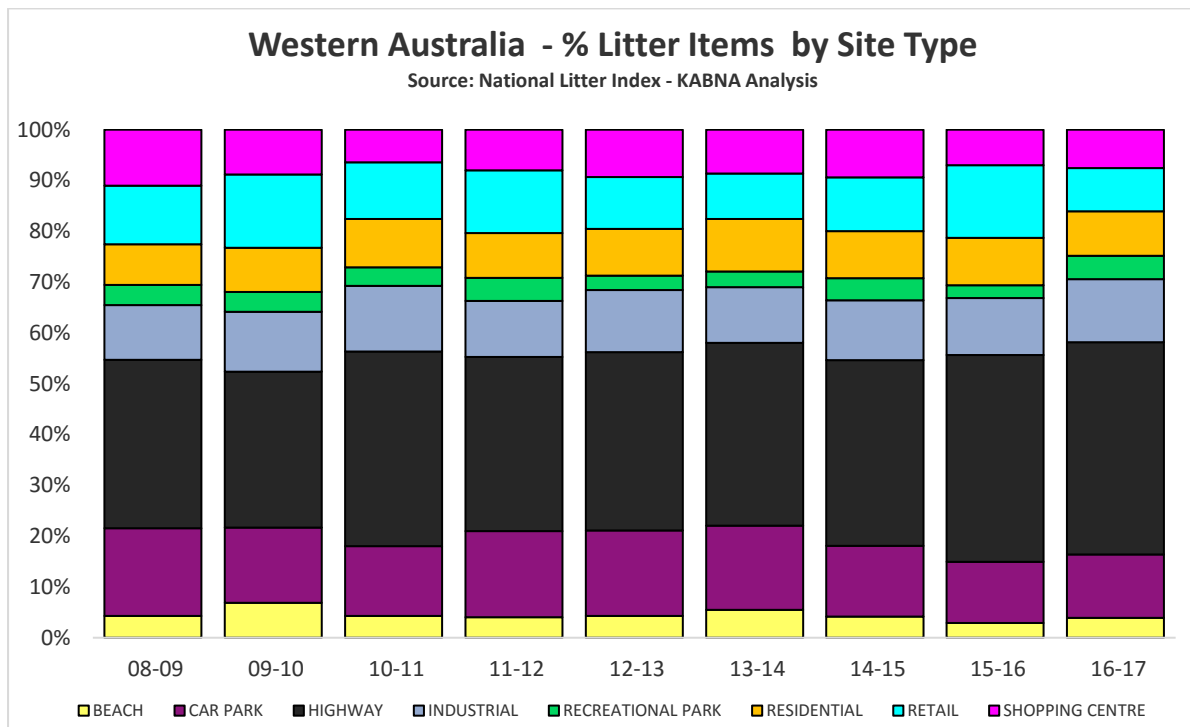
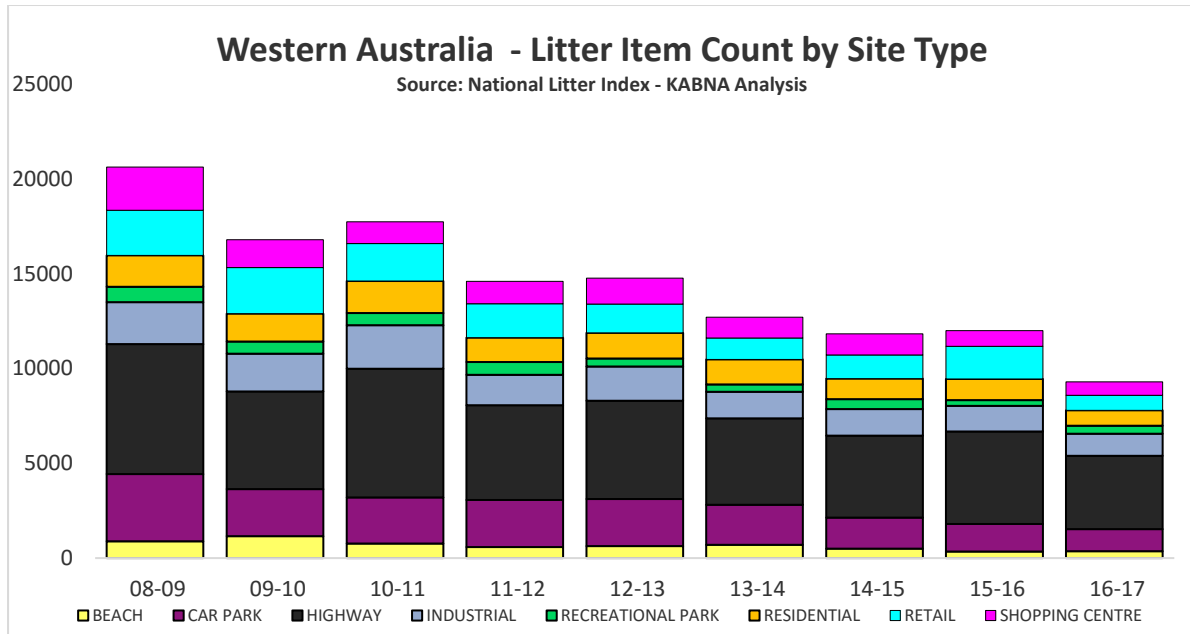
With the decrease in litter counted, the volume in the litter stream has also fallen by 31.7%. Reduced general other litter items drove the majority of the decrease. The significant contributor to the change in volume recorded was the impact of less litter across several high-volume items including illegal dumping and general domestic and industrial containers.

WA		Volume - Litres								
		Beach	Car Park	Highway	Industrial	Recreational Park	Residential	Retail	Shopping Centre	Total
WA 2016/17	Butts & Packaging	0.122	1.378	13.443	2.550	0.444	1.111	0.274	0.922	20.243
	Beverage Containers	15.606	21.189	646.717	48.547	16.995	22.014	12.521	4.763	788.352
	Takeaway Food & Beverage	5.918	19.102	139.777	20.437	9.960	14.522	7.859	6.750	224.325
	Other Glass	0.069	0.137	1.228	0.304	0.020	0.187	0.108	0.020	2.072
	Other Paper	0.164	0.346	2.003	0.468	0.284	0.490	0.242	0.228	4.225
	Other Plastic	0.046	0.119	0.459	0.174	0.068	0.159	0.059	0.047	1.133
	General Other	0.690	9.256	226.144	23.682	5.546	27.972	7.191	4.954	305.436
	Plastic Bags	0.214	0.122	2.288	0.342	0.146	0.437	0.308	0.163	4.019
	Illegal Dumping		24.000	192.000	36.000	24.000	36.000			312.000
	GRAND TOTAL		22.829	75.649	1224.060	132.504	57.463	102.892	28.562	17.846
WA 2015/16	Butts & Packaging	0.016	2.273	18.690	4.413	0.116	2.647	1.450	1.153	30.758
	Beverage Containers	6.255	28.940	707.541	53.738	4.217	22.227	22.046	5.057	850.021
	Takeaway Food & Beverage	5.866	19.411	200.719	20.734	4.957	14.557	17.993	8.260	292.498
	Other Glass	0.020	0.255	1.306	0.196	0.020	0.196	0.147	0.039	2.180
	Other Paper	0.122	0.380	2.704	0.563	0.183	0.546	0.358	0.264	5.119
	Other Plastic	0.041	0.144	0.638	0.208	0.050	0.208	0.074	0.061	1.423
	General Other	11.465	14.369	430.641	52.001	3.395	35.537	13.281	3.397	564.086
	Plastic Bags	0.119	0.102	2.385	0.776	0.034	1.013	0.078	0.051	4.558
	Illegal Dumping		24.000	324.000	24.000		264.000	36.000	12.000	684.000
	GRAND TOTAL		23.903	89.875	1688.625	156.630	12.972	340.930	91.427	30.282
% REDUCTION	Butts & Packaging	-670.1%	39.4%	28.1%	42.2%	-282.2%	58.0%	81.1%	20.0%	34.2%
	Beverage Containers	-149.5%	26.8%	8.6%	9.7%	-303.0%	1.0%	43.2%	5.8%	7.3%
	Takeaway Food & Beverage	-0.9%	1.6%	30.4%	1.4%	-100.9%	0.2%	56.3%	18.3%	23.3%
	Other Glass	-250.0%	46.2%	6.0%	-56.0%		5.0%	26.7%	50.0%	5.0%
	Other Paper	-34.7%	8.9%	25.9%	16.8%	-55.6%	10.2%	32.5%	13.5%	17.5%
	Other Plastic	-13.8%	17.0%	28.0%	16.5%	-36.3%	23.2%	19.5%	23.5%	20.4%
	General Other	94.0%	35.6%	47.5%	54.5%	-63.4%	21.3%	45.8%	-45.8%	45.9%
	Plastic Bags	-79.7%	-19.4%	4.0%	55.9%	-329.1%	56.9%	-296.5%	-219.4%	11.8%
	Illegal Dumping			40.7%	-50.0%		86.4%	100.0%	100.0%	54.4%
	Grand Total (excluding illegal dumping)	4.5%	21.6%	24.4%	27.2%	-158.0%	13.0%	48.5%	2.4%	22.9%
GRAND TOTAL	4.5%	15.8%	27.5%	15.4%	-343.0%	69.8%	68.8%	41.1%	31.7%	
DIFFERENCE	Butts & Packaging	0.106	-0.896	-5.247	-1.863	0.328	-1.536	-1.177	-0.231	-10.515
	Beverage Containers	9.351	-7.751	-60.824	-5.191	12.778	-0.212	-9.525	-0.294	-61.669
	Takeaway Food & Beverage	0.052	-0.309	-60.942	-0.297	5.003	-0.035	-10.134	-1.510	-68.173
	Other Glass	0.049	-0.118	-0.079	0.108		-0.010	-0.039	-0.020	-0.108
	Other Paper	0.042	-0.034	-0.701	-0.095	0.101	-0.056	-0.117	-0.035	-0.894
	Other Plastic	0.006	-0.024	-0.179	-0.034	0.018	-0.048	-0.014	-0.014	-0.291
	General Other	-10.775	-5.113	-204.498	-28.319	2.151	-7.565	-6.089	1.557	-258.650
	Plastic Bags	0.095	0.020	-0.096	-0.434	0.112	-0.577	0.230	0.112	-0.539
	Illegal Dumping			-132.000	12.000	24.000	-228.000	-36.000	-12.000	-372.000
	Grand Total (excluding illegal dumping)	-1.074	-14.225	-332.565	-36.126	20.491	-10.039	-26.865	-0.435	-400.838
GRAND TOTAL	-1.074	-14.225	-464.565	-24.126	44.491	-238.039	-62.865	-12.435	-772.838	

Littering Location

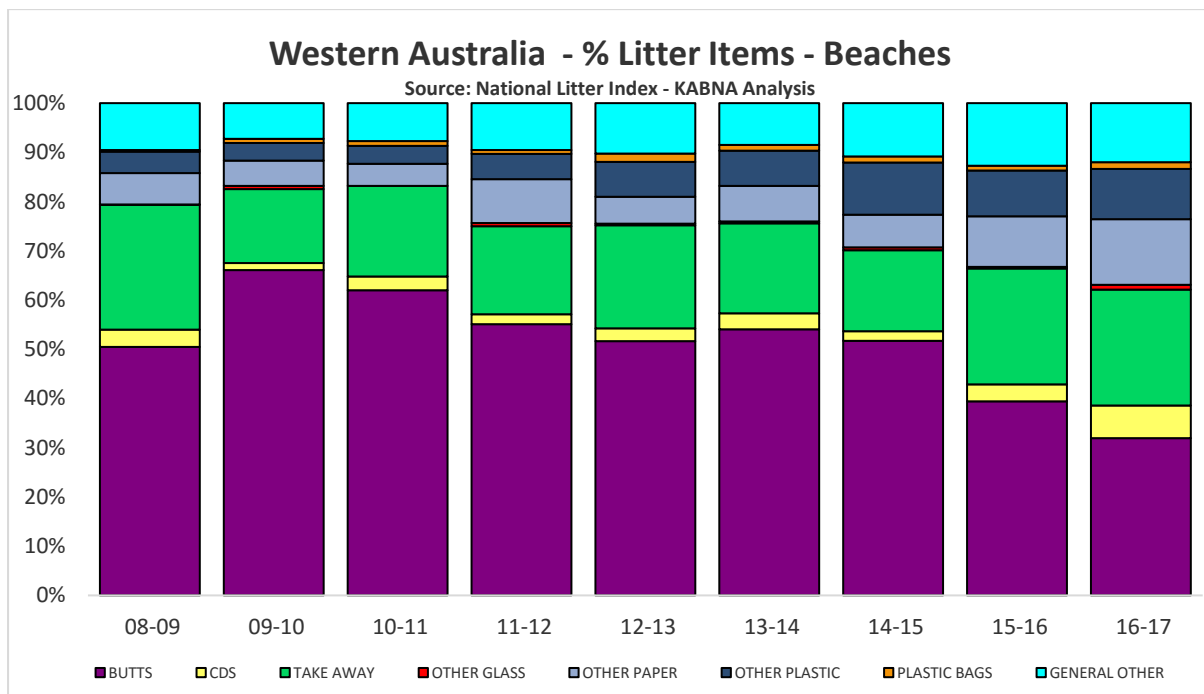
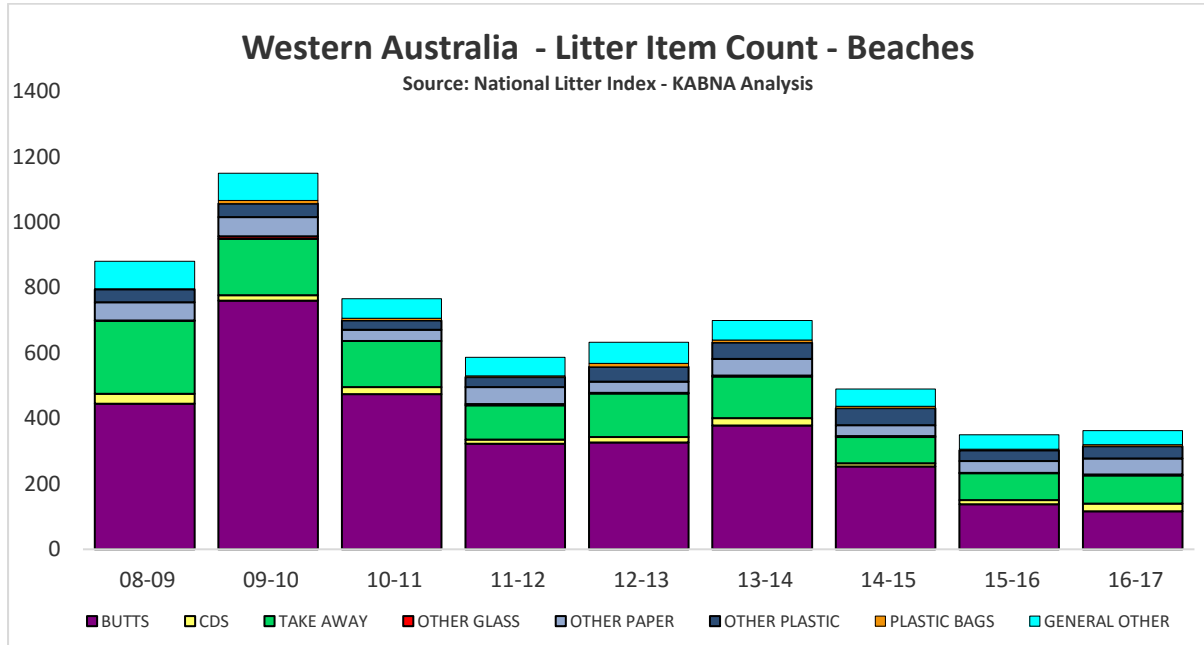
The breakdown of the location of the litter found in Western Australia is contained in the following charts which demonstrate that with the exception of major roads/highways, all sites have seen reduced litter levels over time. As a consequence, major roads/highways are proportionally increasing their share of the WA litter stream.

In 2016/17 monitor lower levels of litter was recorded at retail precincts (-53.8%), residential streets (-28.2%), major roads and highways (-20.6%), car parks (-19.8%), shopping centres (-16.6%) and industrial precincts (-14.1%), offset by increases in litter recorded at recreational parks (+40.3%) and beaches (+3.7%).



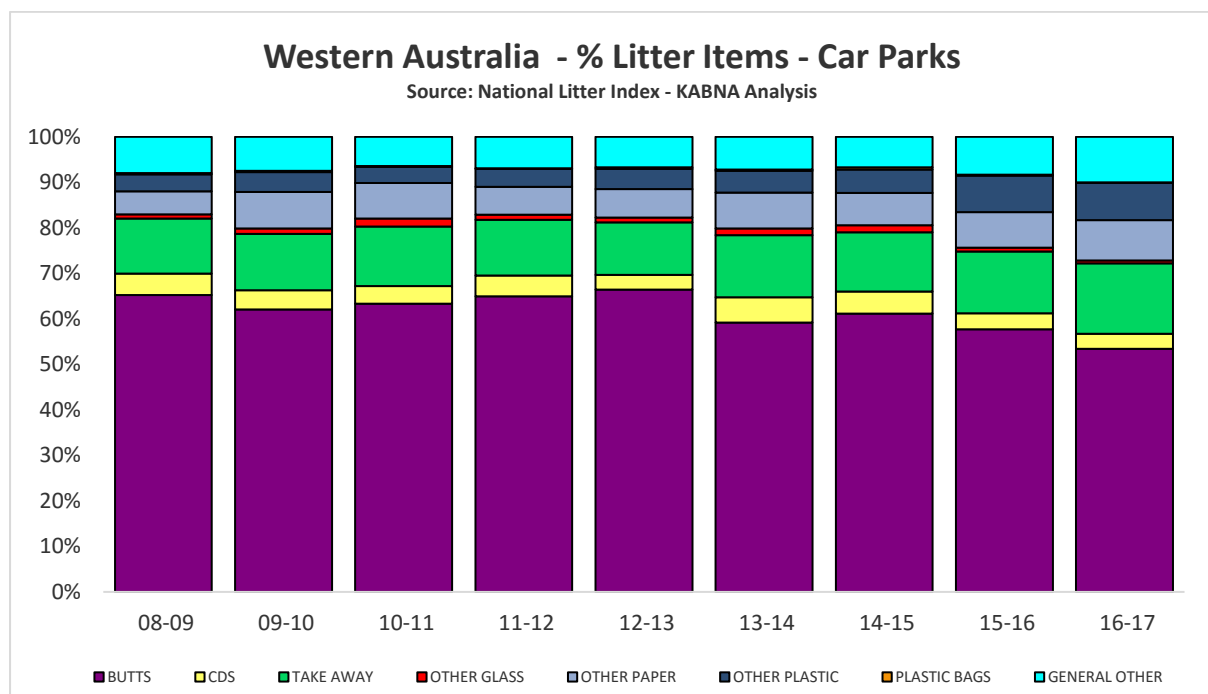
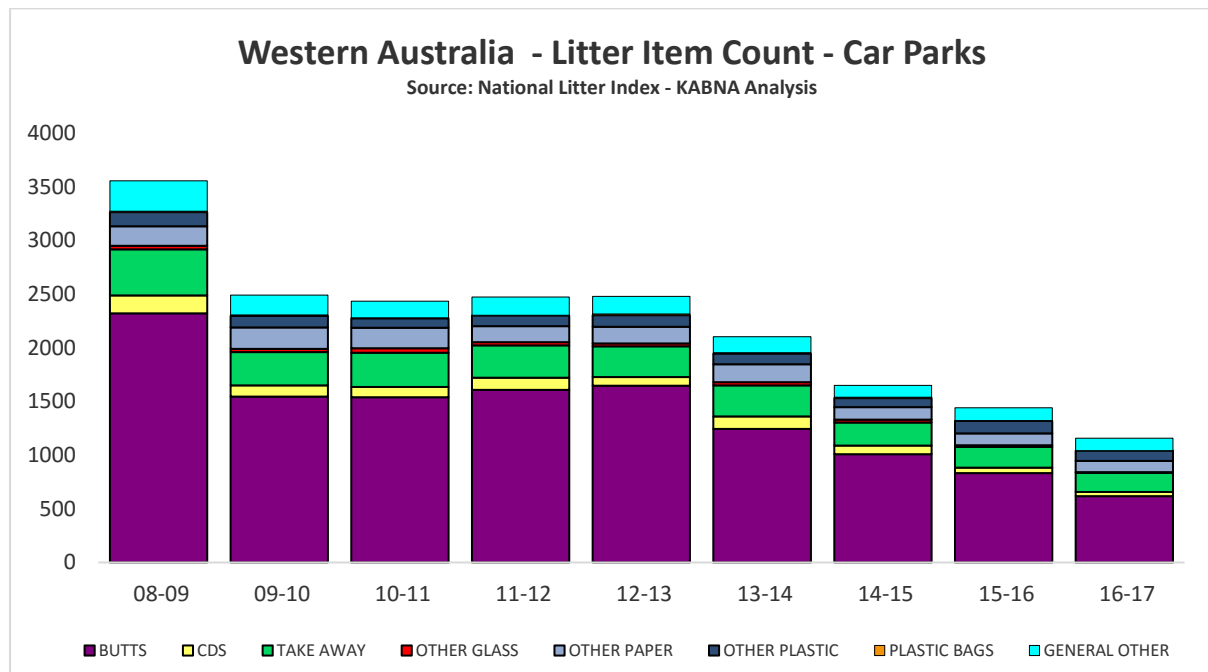
Beaches

Litter levels across WA beaches continue to fall over the long-term, driven primarily by declining cigarette related litter. In the 2016/17 monitor however, we saw an increase in litter counted on WA beaches. All categories experienced increases with the exception of cigarette litter and general other litter items.



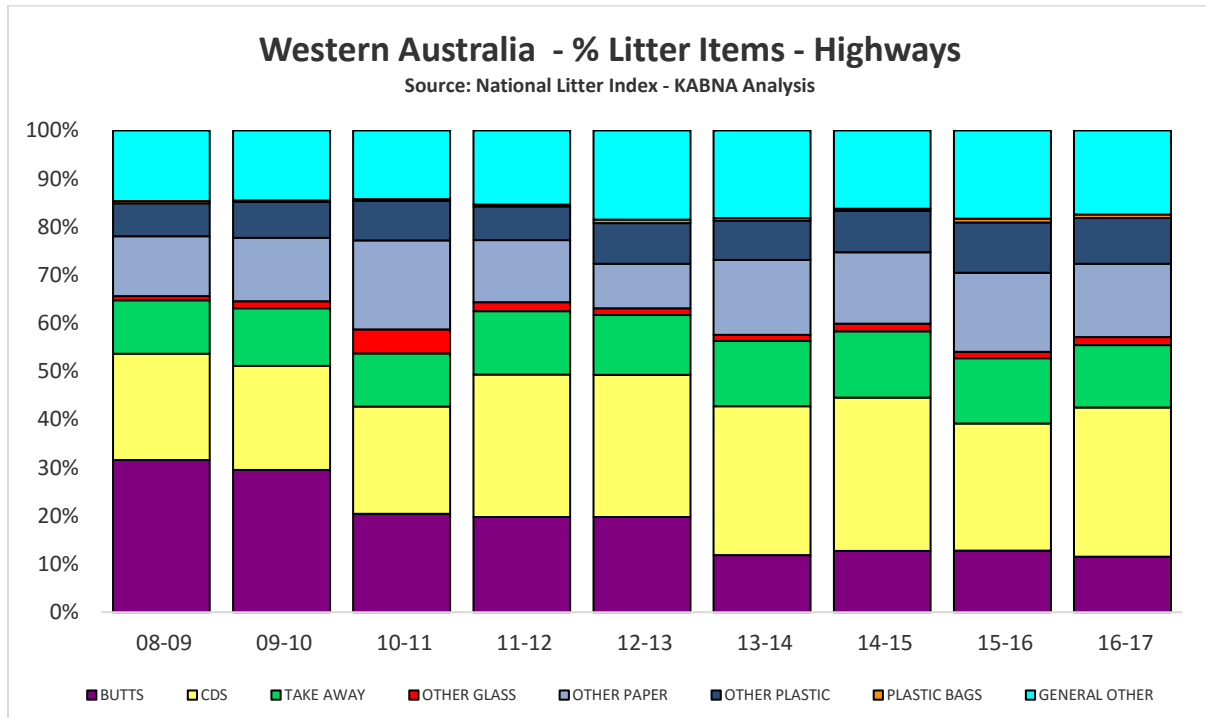
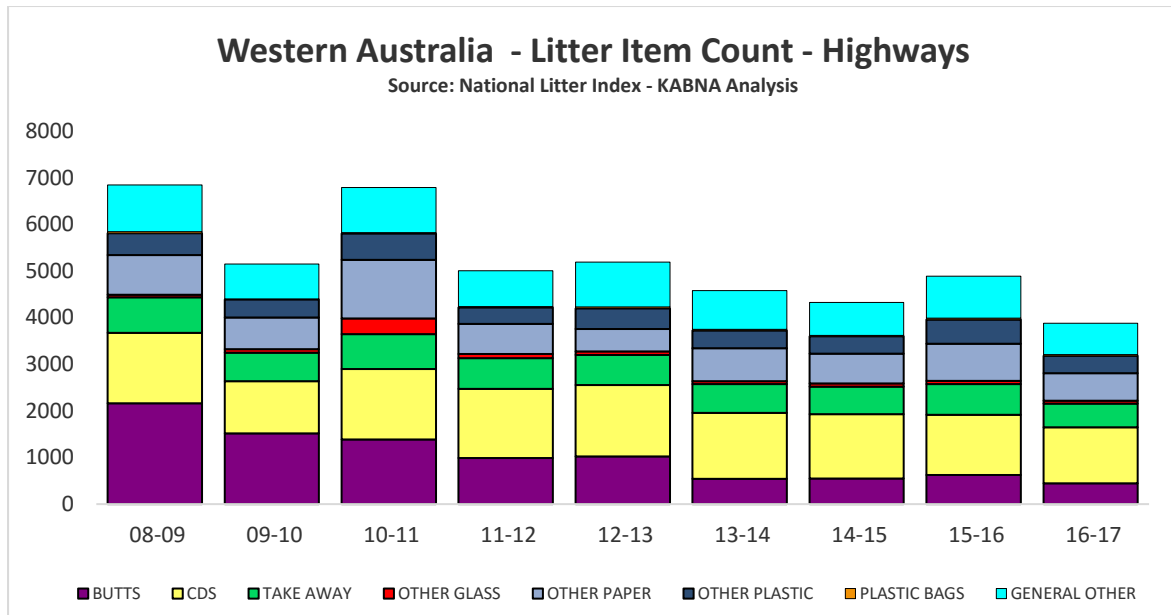
Car Parks

For the fourth year in a row, less litter was recorded at Western Australia’s car parks. All categories experienced falls in litter levels, with the major contributor to the reduction being cigarette butts (down 25.8%).



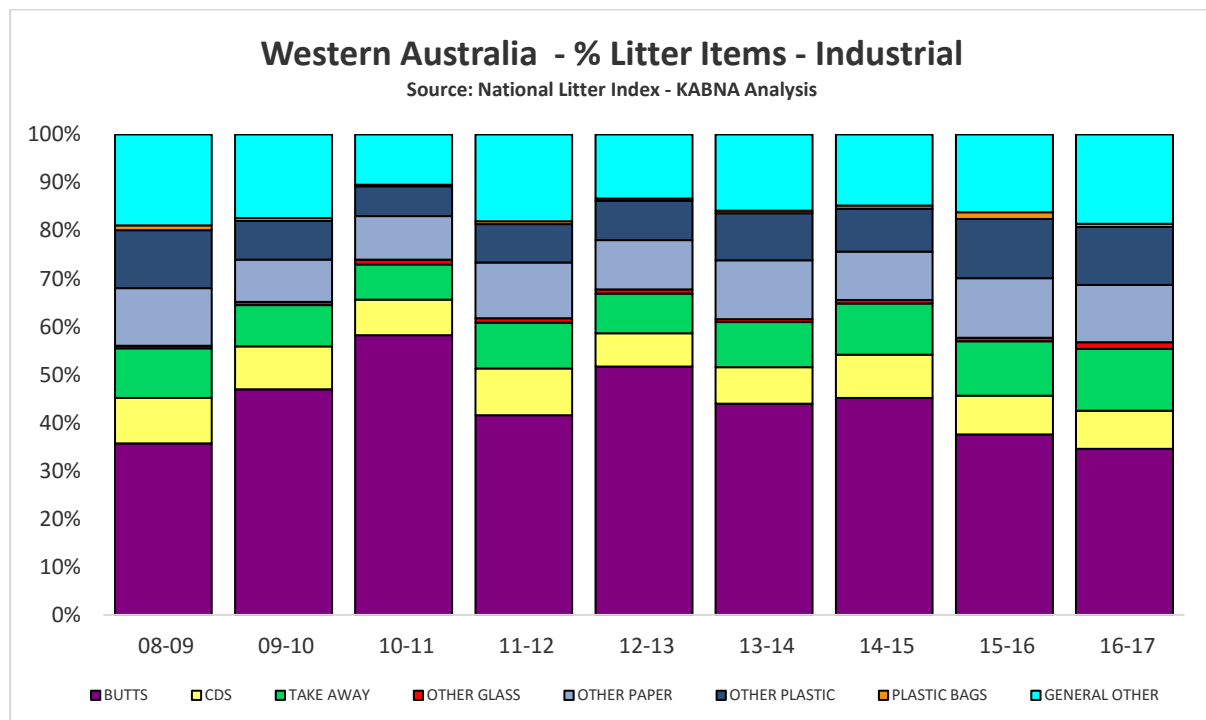
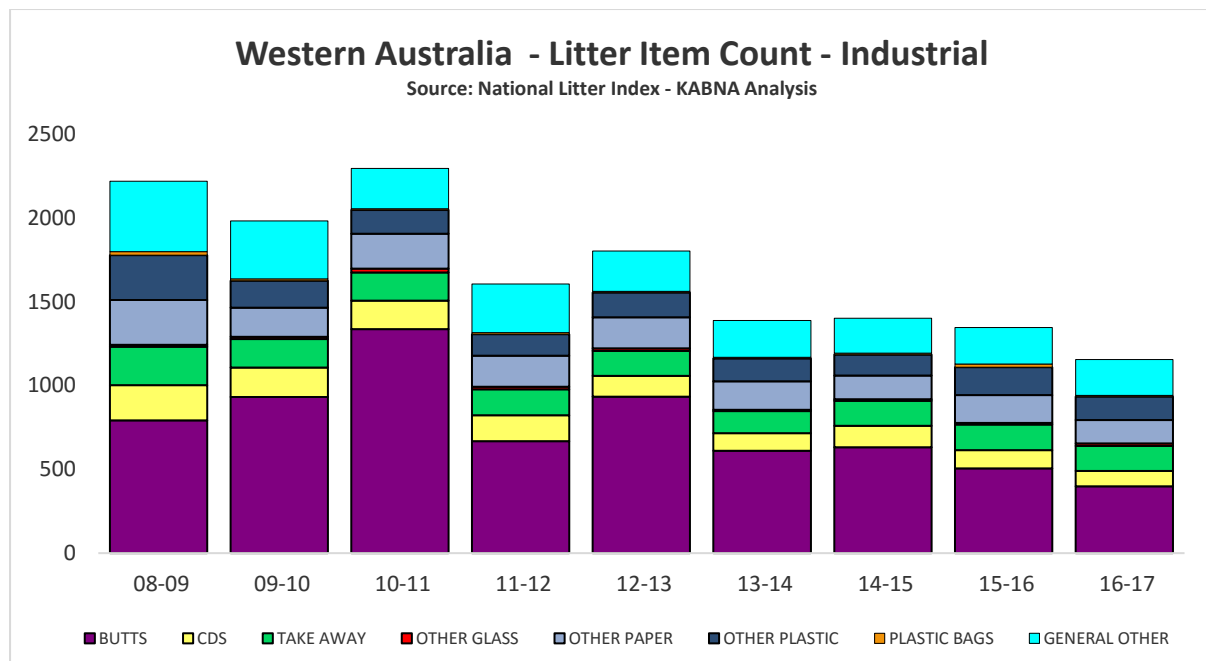
Major Roads/Highways

Litter levels on Western Australia's major roads and highways decreased by 20.6% in the 2016/17 litter monitor. All major categories saw falls with the most significant decreases seen in cigarette litter decreased by 28.6%, other plastic by 28.0%, other paper by 25.9%, general other litter by 23.9% and takeaway food packaging by 23.9%.



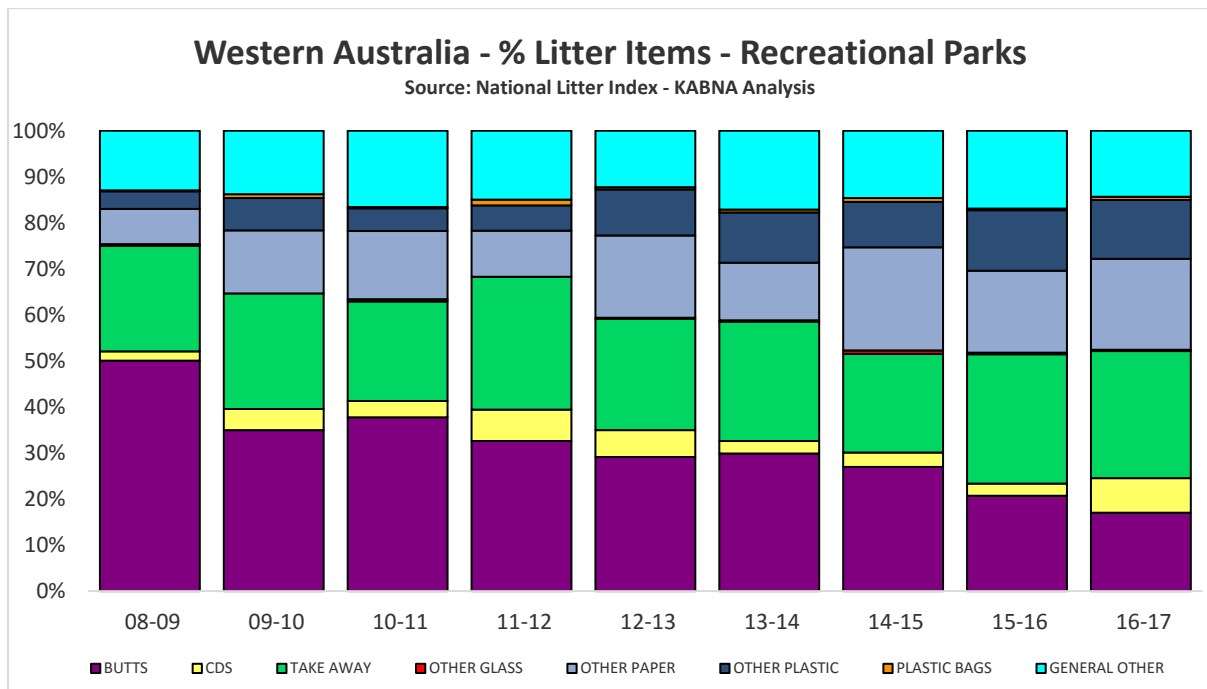
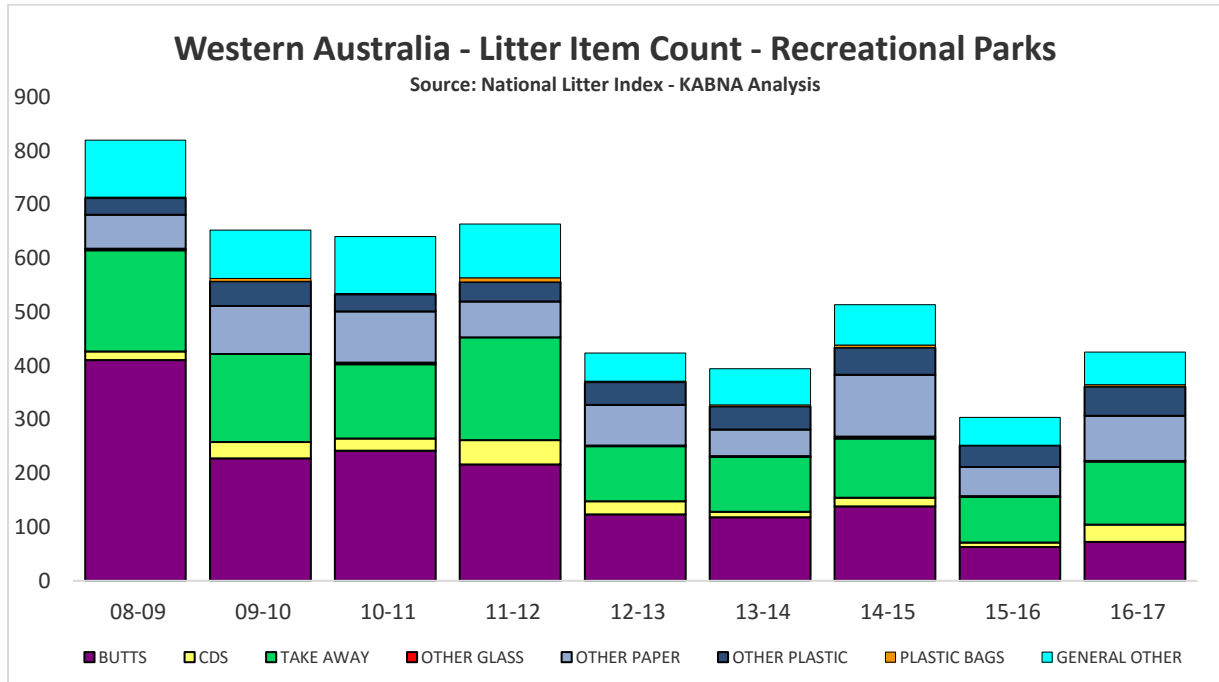
Industrial

The 2016/17 NLI recorded a 14.1% decline in the litter counted around WA industrial precincts and as demonstrated in the chart below reflects a relatively stable, yet declining longer-term litter stream. Cigarette litter fell by 21.0% and plastic bags by 58.5%. Almost all other categories experienced falls in litter counts with the exception of other glass.



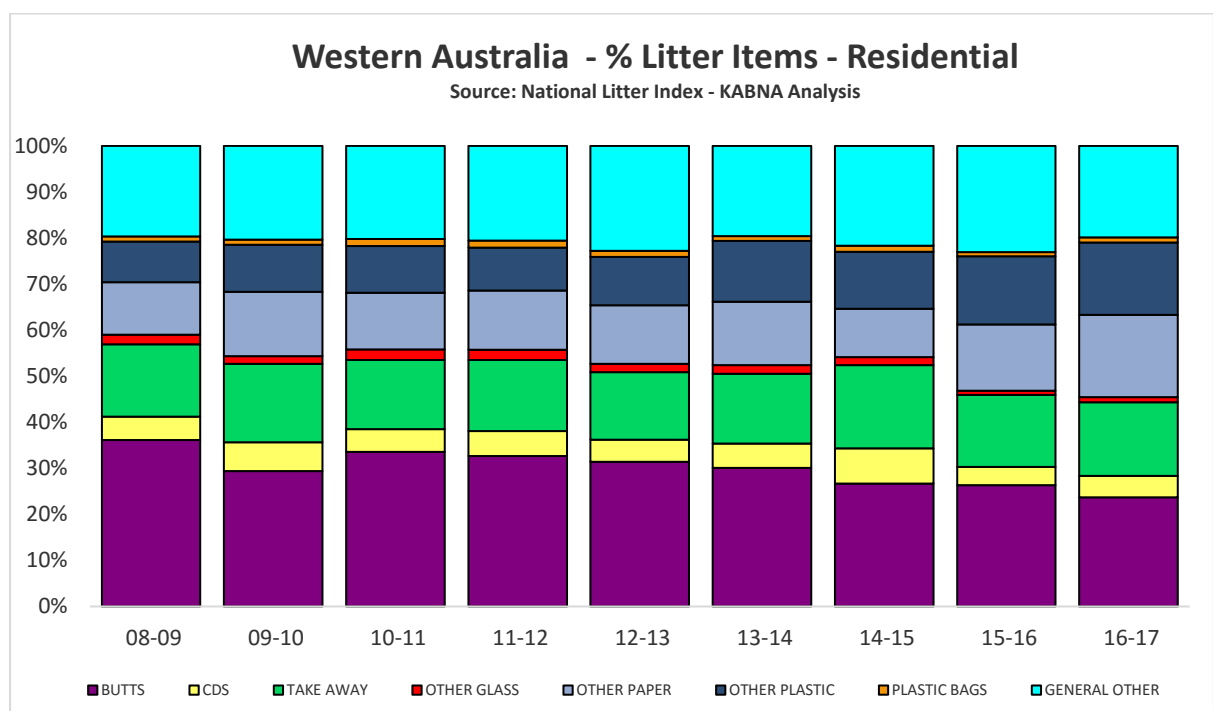
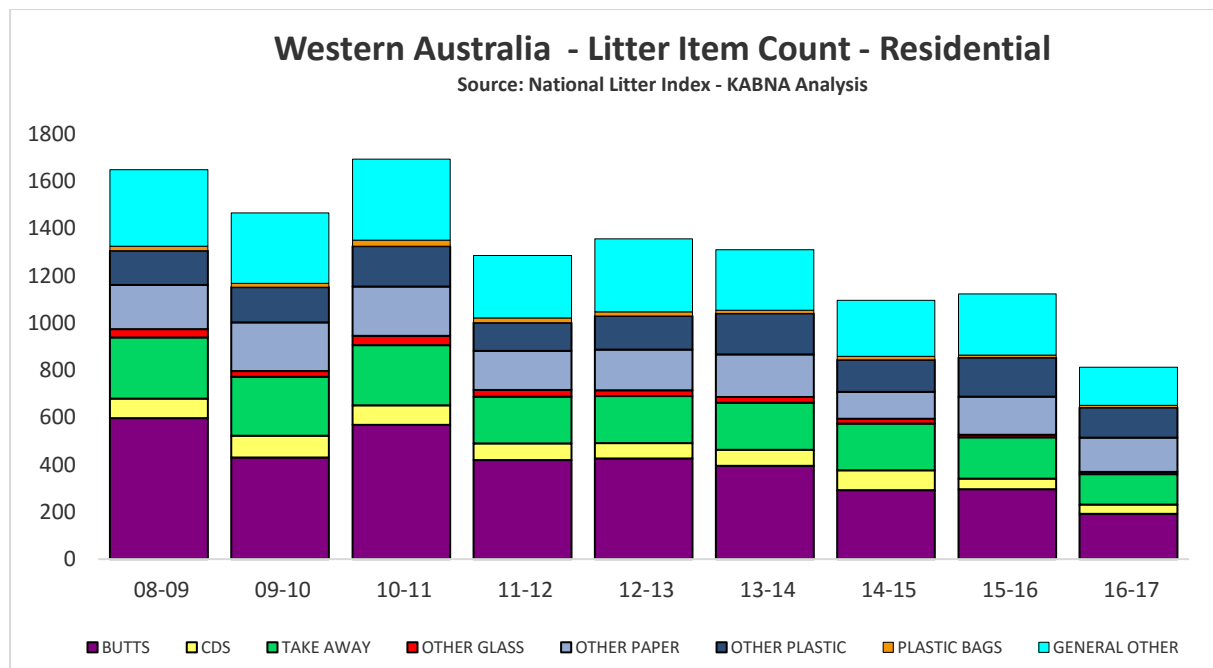
Recreational Parks

Litter counts in Western Australia’s recreational parks increased after a significant fall in the 2015/16 monitor. In 2016/17 increases were recorded in every category except for other glass, which remained unchanged, the largest increase was amongst take away (+37.4%). The current result appears similar to the high levels of 2014/15, after a dramatic fall in litter counted during the previous year demonstrating the volatile nature of the counts over the past 4-5 years.



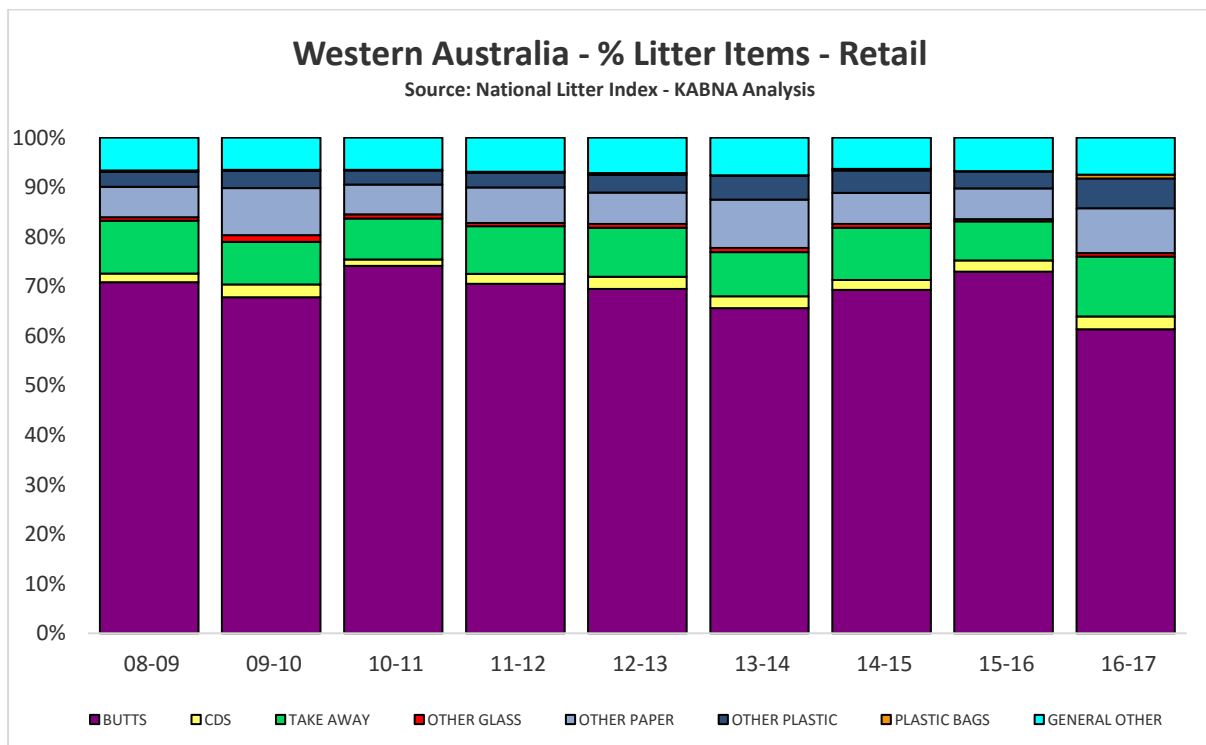
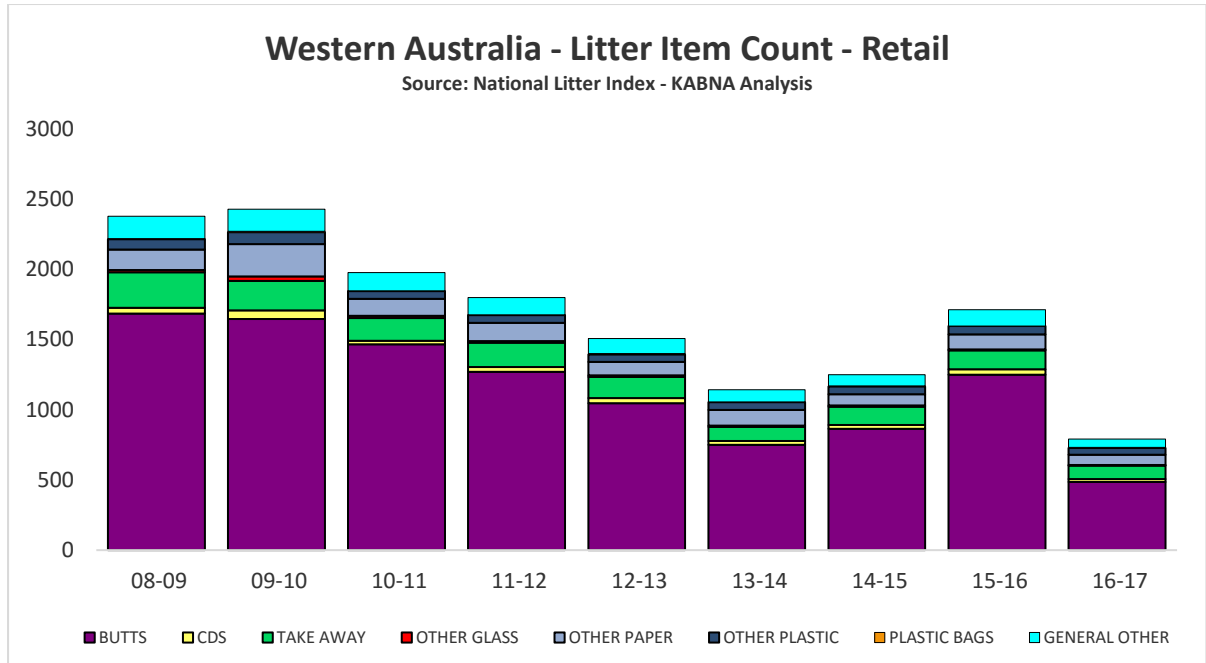
Residential Streets

The 2016/17 monitor recorded 28.2% less litter on Western Australia’s residential streets. All categories experienced falls in litter levels with the exception of other glass, which remained unchanged. The chart below demonstrates continued reductions in levels of cigarette litter, and total litter in residential streets in WA.



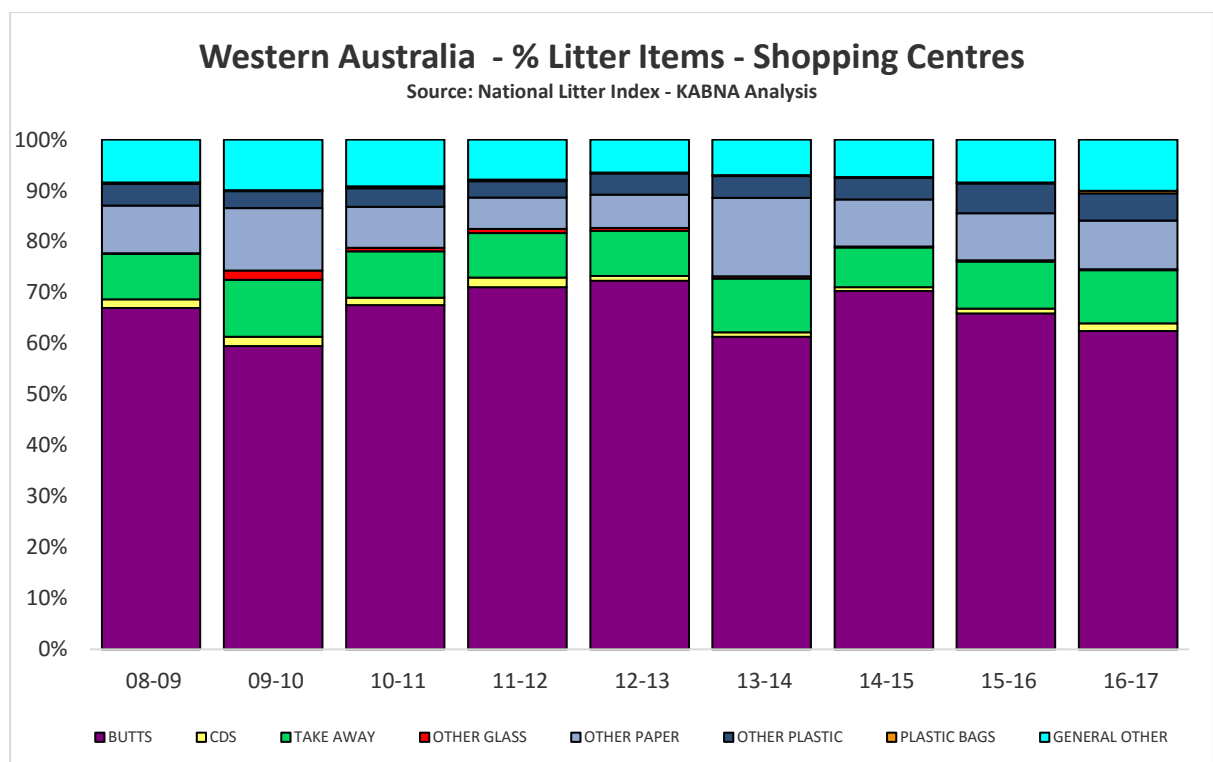
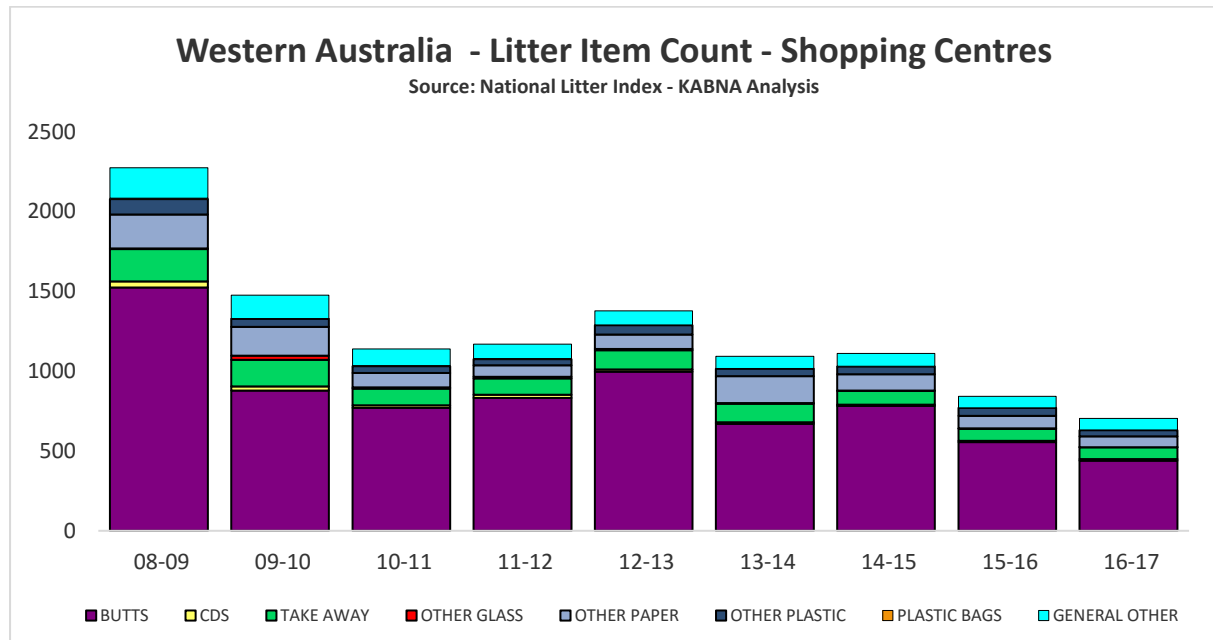
Retail Precincts

Western Australia’s retail shopping strips experienced a significant fall in litter in the 2016/17 monitor, with the lowest recorded level of litter in WA retail precincts. The 53.8% decrease overall was driven by a 61.1% decrease in cigarette litter and decreases in general other items (-50.9%), beverage containers (-44.6%), other paper (-32.5%) and takeaway food packaging (+28.9%).



Shopping Centres

After a period of relative stability, there has been two consecutive falls in the litter levels observed at shopping centres, with the 2016/17 monitor recording a 16.6% decrease in litter counted at these sites in Western Australia. Most categories fell with the most significant declines seen in cigarette butts (-20.9%), other plastic (-23.5%) and other paper (-13.5%), while there were small increases in beverage containers and plastic bags.

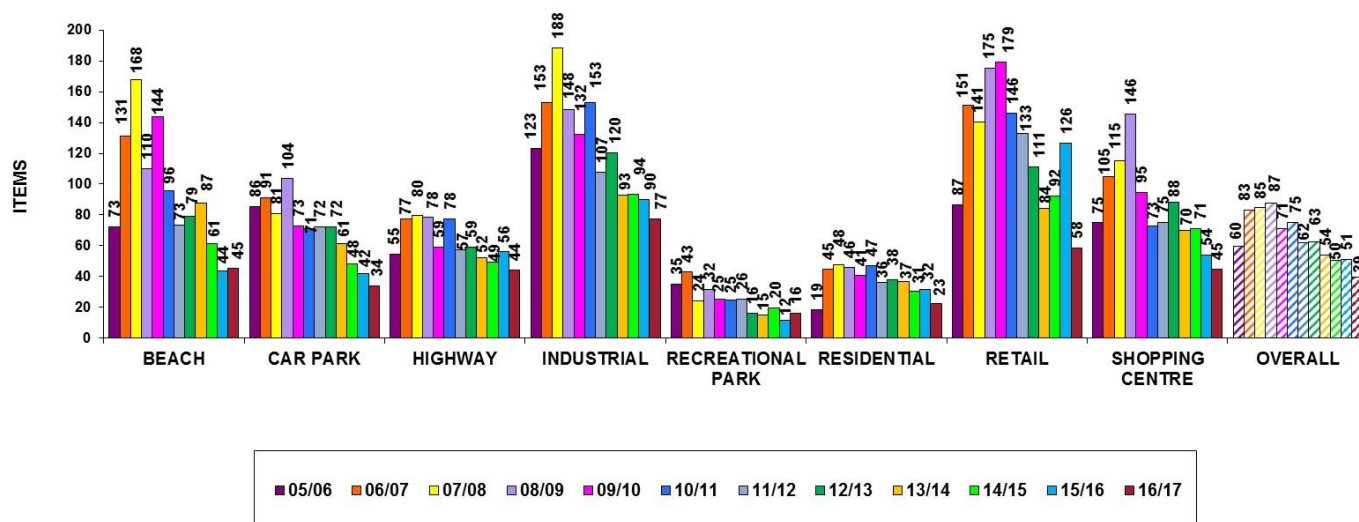


Normalisation for Area Surveyed

As demonstrated in the tables below, when the area monitored is taken into account, the 2016/17 litter monitor recorded, on average, 39 items per 1000m², a decrease from 51 items per 1000m² recorded in the 2015/16 monitor. Industrial precincts have the highest litter loads in Western Australia with 77 litter items per 1000m².

WA		Items								
		Beach	Car Park	Highway	Industrial	Recreational Park	Residential	Retail	Shopping Centre	Total
WA 2016/17	Areas Surveyed	8000	34365	87565	14985	26000	35870	13556	15625	235966
	Items counted (excl illegal dumping)	363	1158	3882	1156	426	813	792	703	9291
	Per 1,000 sq m	45	34	44	77	16	23	58	45	39
WA 2015/16	Areas Surveyed	8000	34365	87565	14985	26000	35870	13556	15625	235966
	Items counted excl illegal dumping)	350	1443	4886	1346	304	1123	1713	842	12006
	Per 1,000 sq m	44	42	56	90	12	31	126	54	51

Items per 1000 Square Metres by Site Type - Annual Averages - WA



A similar picture emerges in volumetric terms, which indicates that the volumetric litter loads are the highest on major roads / highways (11.79 litres per 1000m²). As outlined earlier, the volumetric load across the state has fallen with the decrease in items counted (5.72 litres per 1000m², down from per 7.42 litres 1000m² in 2015/16).

WA		Volume - Litres								
		Beach	Car Park	Highway	Industrial	Recreational Park	Residential	Retail	Shopping Centre	Total
WA 2016/17	Areas Surveyed	8000	34365	87565	14985	26000	35870	13556	15625	235966
	Volume (excl illegal dumping)	22,829	51,649	1032,060	96,504	33,463	66,892	28,562	17,846	1349,805
	Per 1,000 sq m	2.85	1.50	11.79	6.44	1.29	1.86	2.11	1.14	5.72
WA 2015/16	Areas Surveyed	8000	34365	87565	14985	26000	35870	13556	15625	235966
	Volume (excl illegal dumping)	23,903	65,875	1364,625	132,630	12,972	76,930	55,427	18,282	1750,643
	Per 1,000 sq m	2.99	1.92	15.58	8.85	0.50	2.14	4.09	1.17	7.42

Detailed Litter Count Tables - Western Australia

WA - NOV 2016 & MAY 17 AVERAGE		Items									Beverage Containers		Takeaway Food	
		Beach	Car Park	Highway	Industrial	Recreational Park	Residential	Retail	Shopping Centre	Total	Beverage container	Items	Takeaway Food	Items
CIGARETTE BUTTS		115.5	612	384.5	388	70.5	187.5	485	435	2678				
GLASS	Alcoholic sodas / spirit-based mixers, all sizes	0.5	0.5	21	2	0.5	0.5	1.5		27	y	27		
	Beer, all colours of glass, <750ml	7	7	180.5	12	8.5	5	4	1.5	226	y	226		
	Beer, all colours of glass, 750ml+			11	0.5					12	y	12		
	Cider/fruit based etc.	0.5		3.5			1			5	y	5		
	Flav wtr/fruit j. dr/sprts dr. (non-carb), <1 litre			0.5						1	y	1		
	Flav wtr/fruit j. dr/sprts dr. (non-carb), 1 litre+			0.5						1	y	1		
	Flav. water/soft drink (carbonated) <1 litre			3						3	y	3		
	Flav. water/soft drink (carbonated) 1 litre+			4		0.5				5	y	5		
	Fruit juice, <1 litre										y			
	Fruit juice, 1 litre+										y			
	Other glass	3.5	7	62.5	15.5	1	9.5	5.5	1	106				
	Plain water (carbonated or non-carb.), <1 litre										y			
	Plain water (carbonated or non-carb.), 1 litre+										y			
	Wine & spirit, all sizes			13.5			0.5	1		15				
Wine cooler, all sizes										y				
Total	12	15	300	30	11	17	12	3	398		278			
ILLEGAL DUMPING			1	8	1.5	1	1.5			13				
METAL	Aerosols - pressure packs			2.5	1	1		0.5		5				
	Alcoholic sodas & spirit-based mixers	0.5	3.5	100	8	2.5	5	2.5	1.5	132	y	132		
	Beer, aluminium, all types, all sizes	2	1.5	104	5	1	2.5	0.5		114	y	114		
	Cider/fruit based etc.			18.5	0.5			0.5		20	y	20		
	Flav. water/soft drink, (carbonated), all sizes	1.5	13	296	28.5	6	4.5	5	3.5	358	y	358		
	Flav. water/soft drink, (non-carb), all sizes			4	3.5	0.5	0.5			10	y	10		
	Foil take away	1	0.5	21.5	2.5	1	1.5	2.5	1	32			y	32
	Food cans (including pet food)			10	3.5		2	0.5		16			y	
	Industrial cans - all types			0.5	0.5					1				
	Metal bottle tops and can pull rings	27.5	32.5	31.5	19.5	14.5	16	25	12	179			y	179
	Metal pieces	4	11	80.5	19.5	1.5	14.5	4.5	1	137				
	Other foil	1	18.5	32	24	10.5	24	3.5	12	126				
	Total	39	81	706	116	38	71	45	32	1126		632		210
	MISCELLANEOUS	Clothing & materials	16	23.5	137.5	31.5	14	19.5	6	5	253			
Condoms			3.5	4	1		2.5			11				
Construction materials				2.5	1		1.5			5				
Disposable nappies		1.5	5	0.5				0.5	0.5	8				
Ice cream sticks			1	1		0.5	1		0.5	4			y	4
Other miscellaneous		3.5	7	14.5	6.5	2	8.5	3.5	6.5	52				
Rubber pieces (not tyres)		1.5	6	43.5	8	7.5	8.5	4.5	1	81				
Syringes				0.5			0.5			1				
Tyres & pieces				25.5	1	6.5	1	0.5	0.5	35				
Total		23	46	230	49	31	43	15	14	450				4
PAPER/PAPERBOARD	Cartons, flavoured milk < 1 litre		3.5	73	1	1	2.5	1		82	y	82		
	Cartons, flavoured milk 1 litre+			3		0.5	0.5			4				
	Cartons, fruit juice, < 1 litre	1		5		0.5	0.5			7	y	7		
	Cartons, fruit juice, 1 litre+		0.5							1				
	Cartons, milk, plain (white) all sizes			10.5	0.5				0.5	12				
	Cigarette packets	0.5	6	61.5	11.5	2	5	1	4	92				
	Cups/take away containers	5.5	20.5	151.5	18	10.5	15	7	7	235			y	235
	Flav. water/fruit j. drink/sports drink, non-carb, <1 litre		0.5	11				0.5	0.5	13	y	13		
	Flav. water / fruit j. drink / sports drink, (non-carb), 1 litre+										y			
	Ice cream wrappers	0.5	2	5.5		0.5	2.5	1	1	13			y	13
	Junk mail / free circulars		1	3	2.5	0.5	16	0.5	6.5	30				
	Newspapers & magazines		3.5	5.5	4.5		4.5	1	1.5	21				
	Other paper	48.5	102.5	592.5	138.5	84	145	71.5	67.5	1250				
	Packages & boxes	0.5	2.5	51.5	14.5	1.5	9.5	3	3	86				
	Paper bags	2	5.5	48.5	14.5	0.5	5.5	4.5	5	86				
	Shopper dockets & related shopping paper (eg. lists)	1	7.5	2	16	1.5	9.5	8.5	14	60				
Tickets, e.g. bus, ATM, vending machine etc.	2.5	8	2	2	0.5	5	9.5	6	36					
Total	62	164	1026	224	104	221	109	117	2025		102		248	
PLASTIC	6 ring can holders						0.5			1				
	Bags - heavier glossy typically branded carry bags	0.5	1	14.5	1	0.5	1.5	1	0.5	21				
	Bags - supermarket type light weight carry bags	5	1	30	7.5	3	9	6.5	3.5	66				
	Bread bag tags		1				9.5	1	1.5	2				
	Containers, domestic type			5.5			1.5	0.5		8				
	Containers, industrial e.g. oil			4						4				
	Drink pouches			1						1	y	1		
	Flav. milk, <1 litre	0.5	1	52.5	8	2.5	4		1	70	y	70		
	Flav. milk, 1 litre+			0.5		0.5	1.5			4	y	4		
	Flav wtr/fruit j. dr. sprts dr etc (non-carb) <1 litre	1	1.5	27	0.5	0.5	2			33	y	33		
	Flav wtr/fruit j. dr. sprts dr etc (non-carb) 1 litre+			8.5	0.5	0.5				10	y	10		
	Flav. water/soft drink (carbonated) <1 litre	1	3	131.5	6.5	4.5	3	1.5	1.5	153	y	153		
	Flav. water/soft drink (carbonated) 1 litre+	0.5	1	13	2	0.5	0.5	0.5		18	y	18		
	Fruit juice <1 litre		0.5	10	0.5	0.5	0.5			12	y	12		
	Fruit juice, 1 litre+				0.5	0.5				1				
	Lollipop sticks	0.5	9.5	2.5	2	18.5	3	3.5	4.5	44			y	44
	Other plastic	37	95.5	367.5	139	54.5	127.5	47.5	37.5	906				
	Packing tape & straps	8.5	2.5	66.5	28	1.5	14	3.5	3.5	128				
	Plain water (carbonated or non-carb) <1 litre	6	2.5	111	12	3	4.5	1	0.5	141	y	141		
	Plain water (carbonated or non-carb) 1 litre+	1.5	0.5	21	2.5			0.5		26	y	26		
	Plastic bottle tops	10	31.5	57	25.5	17	24.5	15	15	196			y	196
	Sacks - sheeting - other bags		2	33	4	0.5	2			42				
	Snack bags & confectionary wrappers	14.5	28	86	31	17.5	27.5	17.5	13.5	236			y	236
	Spoons/ cutlery	3.5	9	13.5	9	5	3.5	4	3	51			y	51
	Straws	17.5	30	47.5	15	26	24	15	12	187			y	187
	Styrene foam boxes, sheets, etc	0.5	4.5	44.5	25.5		7	0.5	1	84				
	Take away & cups	5	15	86	26.5	6.5	11	5.5	4	160			y	160
	White milk, all sizes		0.5	1.5	1.5					4				
	Wine cask bladders				0.5					1				
	Total	113	241	1236	349	173	274	126	103	2614		465		872
GRAND TOTAL	363	1159	3890	1157	427	814	792	703	9304		1476		1334	

Detailed Litter Volume Tables – Western Australia

	Volume - Litres									Beverage Containers		Takeaway Food			
	Beach	Car Park	Highway	Industrial	Recreational Park	Residential	Retail	Shopping Centre	Total	Beverage container	Items	Takeaway Food	Items		
WA - NOV 2016 & MAY 17 AVERAGE															
GLASS	CIGARETTE BUTTS														
	Alcoholic sodas / spirit-based mixers, all sizes	0.167150	0.167150	7.860300	0.748600	0.167150	0.167150	0.561450							
	Beer, all colours of glass, <750ml	3.240469	3.240469	83.557009	5.555000	3.934855	2.314621	1.851697		0.694286		104.389396			
	Beer, all colours of glass, 750ml+			9.980212	0.453646							10.887504		10.888	
	Cider/fruit based etc.	0.228927		1.602498			0.457853					2.289265		2.289	
	Flav.vtr/fruit j. dr/spts dr. (non-carb.) <1 litre			0.277143								0.277143		0.277	
	Flav.vtr/fruit j. dr/spts dr. (non-carb.) 1 litre+			0.639623								0.639623		0.639	
	Flav. water/soft drink (carbonated) <1 litre			1.187522								1.187522		1.188	
	Flav. water/soft drink (carbonated) 1 litre+			2.024065		0.197920						2.221986		2.222	
	Fruit juice, < 1 litre														
	Fruit juice, 1 litre+														
	Other glass	0.068740	0.137480	1.227500	0.304420	0.019640	0.186580	0.108020	0.019640			2.072020			
	Plain water (carbonated or non-carb.) <1 litre														
	Plain water (carbonated or non-carb.) 1 litre+														
	Wine & spirit, all sizes			12.033900			0.445700	0.891400				13.371000			
	Wine cooler, all sizes														
	Total	3.725286	3.565099	120.389560	7.061756	4.339566	3.591904	3.412567	1.167672			147.254309	131.810		
METAL	ILLEGAL DUMPING														
	Aerosols - pressure packs			1.710600	0.684240						0.342120			3.421200	
	Alcoholic sodas & spirit-based mixers	0.215700	0.159900	46.591200	3.451200	1.078500	2.157000	0.078500	0.647100			56.729100		56.729	
	Beer, aluminium, all types, all sizes	0.862800	0.647100	43.571400	2.157000	0.431400	1.078500	0.215700				48.963900		48.964	
	Cider/fruit based etc.			7.989800	0.215700			0.215700				8.412300		8.412	
	Flav. water/soft drink (carbonated), all sizes	0.638303	5.531959	125.958440	12.127755	2.553212	1.914909	2.127676	1.489373			152.341627		152.342	
	Flav. water/soft drink (non-carb), all sizes	0.381800		1.526400	1.335600		0.190800	0.190800				3.625200		3.625	
	Foil take away	0.462380	0.231190	9.941170	1.155950	0.462380	0.693570	1.155950	0.462380			14.554970		14.565	
	Food cans (including pet food)			4.630000	1.623300		0.927600	0.231900				7.420800			
	Industrial cans - all types			2.285020	2.285020							4.570040			
	Metal bottle tops and can pull rings	0.110000	0.130000	0.128000	0.079000	0.058000	0.064000	0.100000	0.049000			0.714000		0.714	
	Metal pieces	0.042400	0.116600	0.853300	0.208700	0.015900	0.153700	0.047700	0.019600			1.446900			
	Other foil	0.001560	0.028860	0.049200	0.037440	0.016380	0.037440	0.005460	0.018720			0.195780			
	Total	2.714743	8.195609	246.232350	26.367905	5.300012	7.217519	5.369386	3.018293			302.405817	270.072	15.279	
	MISCELLANEOUS	Clothing & materials	0.244800	0.395650	2.103750	0.481950	0.214200	0.298350	0.091900	0.078500			3.870900		
		Condoms		1.260000	1.440000	0.360000			0.900000				3.960000		
		Construction materials			1.282500	0.360000			0.540000				2.182500		
Disposable nappies		0.001380	0.004600	0.000460				0.000460	0.000460			0.007360			
Ice cream sticks			0.000920	0.000920		0.000460	0.000920		0.000460			0.003680		0.004	
Other miscellaneous		0.047250	0.094500	0.195750	0.087750	0.027000	0.114750	0.047250	0.087750			0.702000			
Rubber pieces (not tyres)		0.000247	0.000987	0.007158	0.001316	0.001234	0.001398	0.000740	0.000165			0.013242			
Syringes				0.001130			0.001130					0.002260			
Tyres & pieces				5.737500	0.225000	1.462500	0.225000	0.112500	0.112500			7.875000			
Total		0.293677	1.720557	10.769166	1.516016	1.705394	2.081548	0.252750	0.277835			18.616842	17.072	0.004	
PAPER/PAPERBOARD		Cartons, flavoured milk < 1 litre	2.353680	49.091040	0.672480	0.672480	0.672480	1.661200	0.672480			55.143360		55.143	
		Cartons, flavoured milk 1 litre+			3.037960		0.506330		0.506330			4.050640			
		Cartons, fruit juice, < 1 litre	0.624750		3.123750		0.312375		0.312375			4.373250		4.373	
		Cartons, fruit juice, 1 litre+										1.035000			
		Cartons, milk, plain (white) all sizes			10.632930	0.506330						0.506330			
		Cigarette packets	0.108935	1.307220	13.399005	2.505505	0.435740	1.089350	0.217870	0.871480			19.836105		
		Cups/take away containers	4.009225	14.943475	110.435925	13.121100	7.653975	10.934250	5.102650	5.102650			171.303250		171.303
	Flav. water/fruit j. drink/sports drink, non-carb., <1 litre		0.151200	3.326400				0.151200	0.151200			3.780000		3.780	
	Flav. water/fruit j. drink/sports drink, (non-carb.), 1 litre+														
	Ice cream wrappers	0.001200	0.004800	0.013200		0.001200	0.006000	0.002400	0.002400			0.031200		0.031	
	Junk mail / free circulars		0.174000	0.522000	0.435000	0.087000	2.784000	0.870000	1.131000			5.220000			
	Newspapers & magazines		4.130000	6.490000	5.310000		5.310000	1.180000	1.770000			24.190000			
	Other paper	0.169330	0.346450	2.002950	0.468130	0.283920	0.490100	0.241670	0.228150			4.229000			
	Packages & boxes	0.040000	0.200000	4.120000	1.160000	0.120000	0.760000	0.240000	0.240000			6.880000			
	Paper bags	0.021160	0.058190	0.513130	0.153410	0.005290	0.058190	0.047610	0.052900			0.909880			
	Shopper dockets & related shopping paper (eg. lists)	0.002030	0.015225	0.004060	0.032480	0.003045	0.019285	0.017255	0.028240			0.121800			
	Tickets, e.g. bus, ATM, vending machine etc.	0.002200	0.007040	0.001760	0.001760	0.000440	0.004400	0.008360	0.005280			0.031240			
Total	4.973430	24.762280	206.713830	23.964895	10.081795	23.964895	7.968495	10.089810			312.876315	63.297	171.334		
PLASTIC	6 ring can holders						0.000750				0.000750				
	Bags - heavier glossy typically branded carry bags	0.043800	0.087600	1.202000	0.087600	0.043800	0.131400	0.087600	0.043800		1.795800				
	Bags - supermarket type light weight carry bags	0.169700	0.033940	0.181200	0.254550	0.101820	0.305460	0.220610	0.118790		2.223070				
	Bread bag tags		0.000230				0.002185	0.000230	0.000345		0.004660				
	Containers, domestic type			45.782000				12.488000	4.162000			62.430000			
	Containers, industrial e.g. oil			89.832000								89.832000			
	Drink pouches			0.086250								0.086250		0.086	
	Flav. milk, <1 litre	0.266350	0.532700	27.966750	4.261600	1.331750	2.130800		0.532700			37.022650		37.023	
	Flav. milk, 1 litre+			1.068345			1.068345	3.205035	2.136690			7.478415		7.478	
	Flav.vtr/fruit j. dr. spts dr etc (non-carb) <1 litre	0.737620	1.106430	19.915734	0.368810	0.368810	1.475240					23.972643		23.973	
	Flav.vtr/fruit j. dr. spts dr etc (non-carb) 1 litre+			10.209374	0.600551		0.600551					11.410477		11.410	
	Flav. water/soft drink (carbonated) <1 litre	0.622110	1.969330	81.807465	4.043715	2.799495	1.969330	0.933165	0.933165			94.871776		94.872	
	Flav. water/soft drink (carbonated) 1 litre+	0.627000	1.654000	21.502000	3.398000	0.827000	0.827000	0.827000	0.827000			29.772600		29.772	
	Fruit juice <1 litre		0.200023	4.000465	0.200023	0.200023	0.200023					4.800568		4.801	
	Fruit juice, 1 litre+				1.068345	1.068345						2.136690			
	Lollipop sticks	0.000285	0.005035	0.001325	0.001060	0.009805	0.001590	0.001855	0.002385			0.023320			
	Other plastic	0.046250	0.119375	0.459375	0.173750	0.068125	0.159375	0.059375	0.046875			1.132500			
	Packing tape & straps	0.002295	0.000675	0.019755	0.007560	0.000495	0.003780	0.000945	0.000945			0.034560			
	Plain water (carbonated or non-carb) <1 litre	4.727400	1.969750	87.456900	9.454800	2.363700	3.545550	0.787900	0.393950			110.699950		110.700	
	Plain water (carbonated or non-carb) 1 litre+	2.312355	0.770785	32.372970	3.853925			0.770785				40.808820		40.801	
	Plastic bottle tops	0.080950	0.252158	0.456285	0.204128	0.136085	0.196123	0.120075	0.120075			1.564978			
	Sacks - sheeting - other bags		0.000630	0.010395	0.001260	0.001158	0.000630					0.013073			
	Snack bags & confectionary wrappers	0.113535	0.219240	0.673380	0.242730	0.137025	0.215325	0.137025	0.105705			1.843965		1.844	
	Spoons/cutlery	0.033800	0.086400	0.129600	0.086400	0.048000	0.033800	0.038400	0.028800			0.484800		0.485	
	Straws	0.072188	0.123750	0.195938	0.061875										