

2015–16 National Litter Index Results for New South Wales

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About the National Litter Index

The [Keep Australia Beautiful \(KAB\) National Litter Index \(NLI\)](#) is a national litter survey funded by all States and Territories and the packaging industry through the Australian Packaging Covenant. It has been conducted annually since 2005–06.

National Litter Index and New South Wales

The NSW Environment Protection Authority uses NLI data to report against the NSW Premier's Priority to reduce the volume of litter in NSW by 40% by 2020. Together with other data, the EPA uses the NLI to formulate policies and projects aimed at reducing litter in NSW.

2015–16 NSW and National Litter Index results

Keep Australia Beautiful has released the 2015–16 National Litter Index (NLI) data results. Both the national and New South Wales data sets are attached in the Appendix.

In October 2016 Keep Australia Beautiful will publish a detailed NLI report of all state and territory results. This will be published on the [KAB website](#). Reports on the NLI for previous years can be found at [Keep Australia Beautiful's National Litter Index](#).

This document provides a snapshot of litter results from the NLI in anticipation of the publication in October of the detailed report.

Results for 2015–16 show a 12% reduction in litter volume and a 4% reduction in litter items in NSW. A full overview of these results is provided.

Understanding the NLI data

The NSW results are based on a survey of 151 NSW sites, surveyed twice a year – November and May. Surveys are conducted in eight site types and with litter coded into six broad categories:

- glass
- metal
- miscellaneous
- plastic
- paper/cardboard
- cigarette butts.

For the purposes of this report, the EPA has split the data into more relevant categories according to NSW litter strategies and priorities. These are:

- beverage containers covered by the upcoming Container Deposit Scheme (CDS)
- non-CDS eligible beverage containers
- domestic containers
- cigarette butts
- print and advertising
- takeaway containers
- miscellaneous items.

The surveys count litter items. Litter volume is calculated using the number of littered items, multiplied by a volume figure for each different item line.

The total areas surveyed at each site type varies. For example, highway sites make up 59,636 square metres of the total NLI survey areas in NSW, while beaches only make up 9000 square metres. To determine the rate of litter per 1000 square metres, the EPA divides the total amount of litter by the total NSW survey area. In NSW the total NLI survey area is 221,499 square metres.

NSW NLI survey areas across site types

Survey site	Survey area (square metres)
Beaches	9,000
Car park	35,148
Highway	59,636
Industrial	17,288
Recreational park	26,790
Residential	39,237
Retail	17,450
Shopping centre	16,950
Total	221,499

More information about the NLI methodology is available through NLI reports for previous years.

Exclusion of illegal dumping

The KAB survey includes illegally dumped materials as part of the litter stream. The EPA does not consider illegal dumping as a litter issue and the EPA runs separate programs to deal with illegal dumping. All of the data discussed below excludes illegal dumping.

NLI methodology

The NLI survey only provides a snapshot of litter at certain sites at certain times and does not provide sufficient information to explain year-to-year fluctuations. For example, the NLI does not measure littering behaviour, nor a range of other key factors that influence the presence of litter in the environment, such as population density, recent clean up activity or weather conditions. It therefore cannot be used in isolation to measure the effectiveness of anti-littering policies or programs. The NLI can be used however, to measure trend lines over time.

This is why the EPA also uses other measures as well as the NLI to track the impacts of its programs. This includes Local Litter Check results for council litter hotspots, and social research into litter knowledge, attitudes and behaviours following the *Hey Tosser!* campaign.

NLI results overview

1.1 Headline results

- The **volume of litter per 1000 square metres** (excluding illegal dumping) in NSW has fallen by 12% since 2014–15.
- Nationally, the volume of litter has reduced by 9% since 2014–15.
- The total reduction in litter volume in NSW from the base year of the Premier's Priority in 2013–14 to 2015–16 is 19%. This is just under halfway to meeting the Premier's 40% reduction target.
- The volume of litter in the 151 sites surveyed in NSW is 5.7 litres per 1000m² in 2015–16, down from 6.5 litres in 2014–15 and 7.0 litres in 2013–14.
- Litter volume in NSW has reduced by 35% since 2005–06.
- Beverage containers to be covered by the NSW Container Deposit Scheme (CDS) make up 43% of total litter volume in 2015–16.
- Industrial sites continue to have the highest proportion of litter with 13 litres of litter per 1000m²; highways (7 litres), then car parks (6 litres).
- The number of **littered items per 1000m²** in NSW has decreased by 4% since 2014–15.
- Nationally, the number of littered items has reduced by 8% since 2014–15.
- Litter items in NSW have reduced by 42% since 2005–06.
- In the 151 NSW sites surveyed, there is on average 46 items of litter per 1000m².
- Cigarette butts continue to be the most littered item (33% of items).
- Beverage containers to be covered by the NSW CDS make up 9% of littered items.
- Industrial sites, retail sites and car parks represent NSW most littered site types by item number.

Figure 1: Litter volume per 1000 m² – NSW and national comparison (excluding illegal dumping)

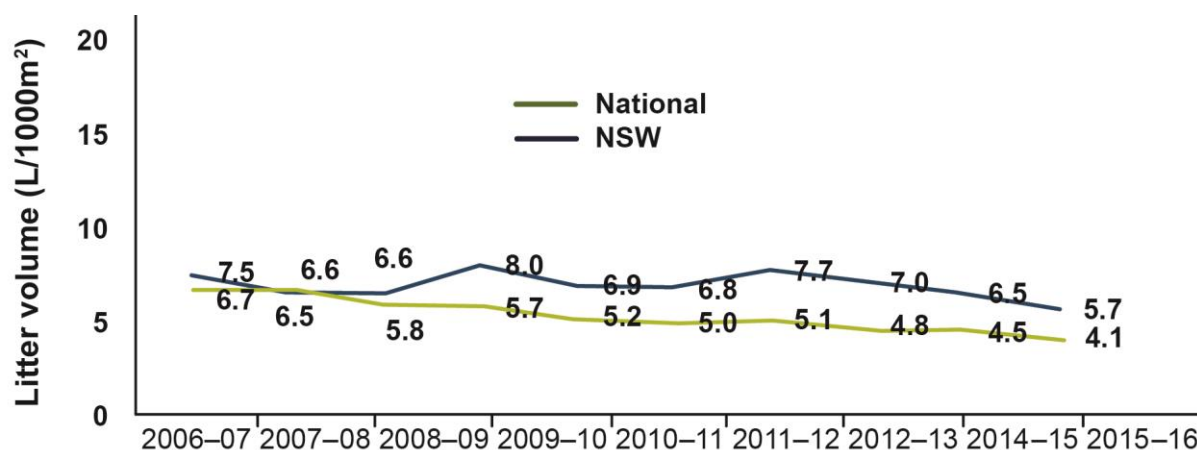
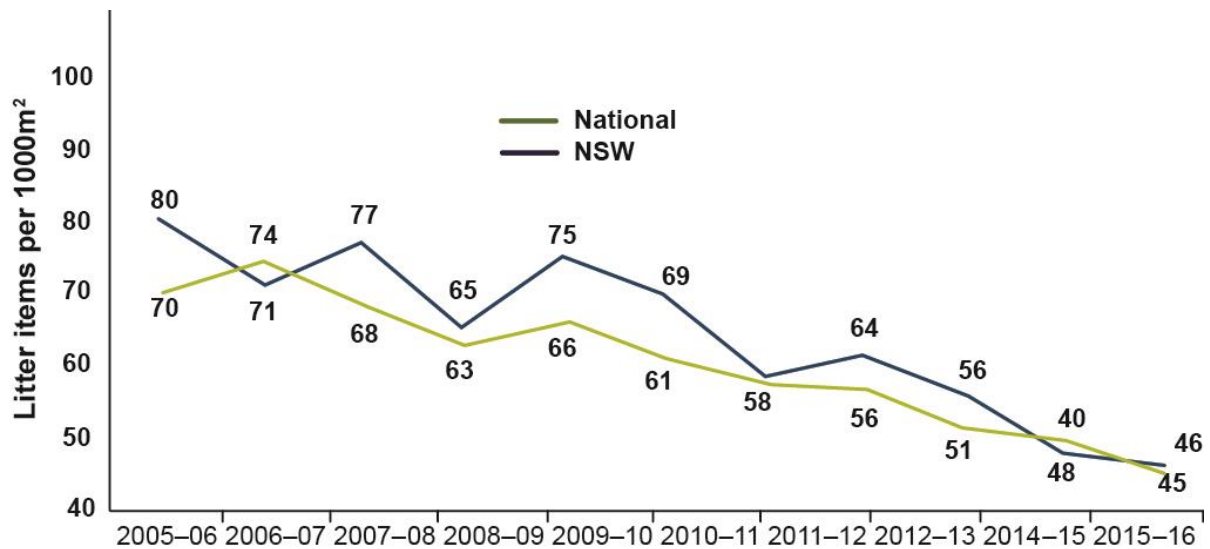


Figure 2: Litter items per 1000 m² – NSW and national comparison (excluding illegal dumping)



1.2 Comparisons by litter volume (excluding illegal dumping)

- There were reductions in litter volume across all litter categories from the previous year (except a minor rise in cigarette litter).
- Beverage containers to be covered by the NSW Container Deposit Scheme (CDS) make up 43% of total litter volume in 2015–16. In 2014–15, CDS beverage containers made up 39% of NSW litter volume.
- Take away containers make up 24% of total litter volume, followed by domestic containers (9%), non-CDS covered beverage containers (6%) and print and advertising material (8%).
- Although cigarette butts are the most littered items they contribute very little volume to the litter stream.
- Industrial sites continue to have the highest proportion of litter volume with 13 litres of litter per 1000m². Highways (7 litres), then car parks (6 litres) follow.
- Recreational Parks (0.8 litres of litter per 1000m²), Beaches (2.8 litres), Shopping centres (2.6 litres), remain the lowest littered sites by volume.

Figure 3: Total litter volume by category in NSW 2015–16

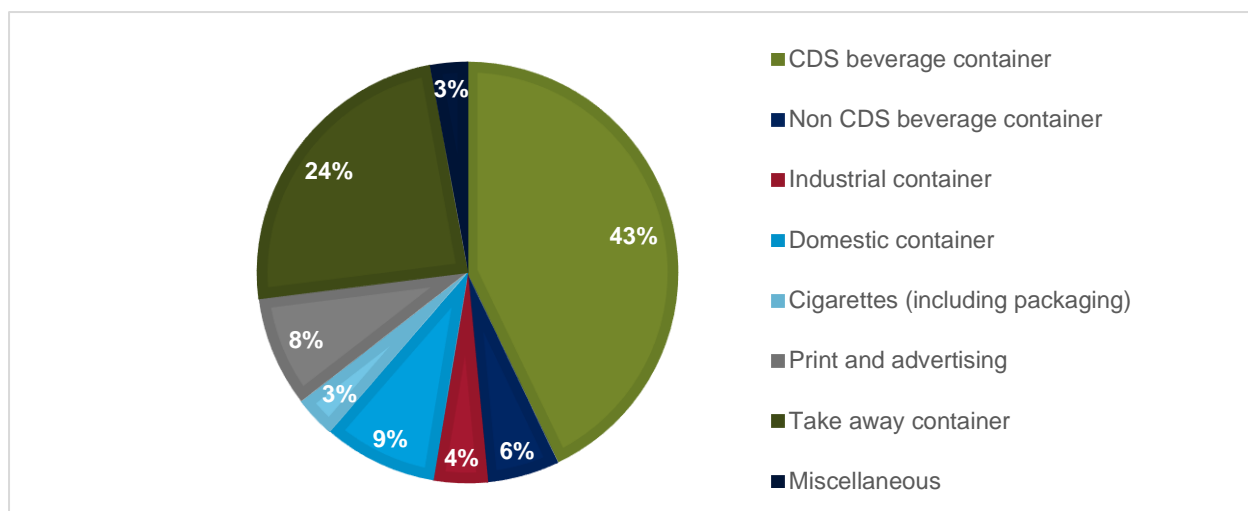


Figure 4: Litter volume by site in NSW 2015–16

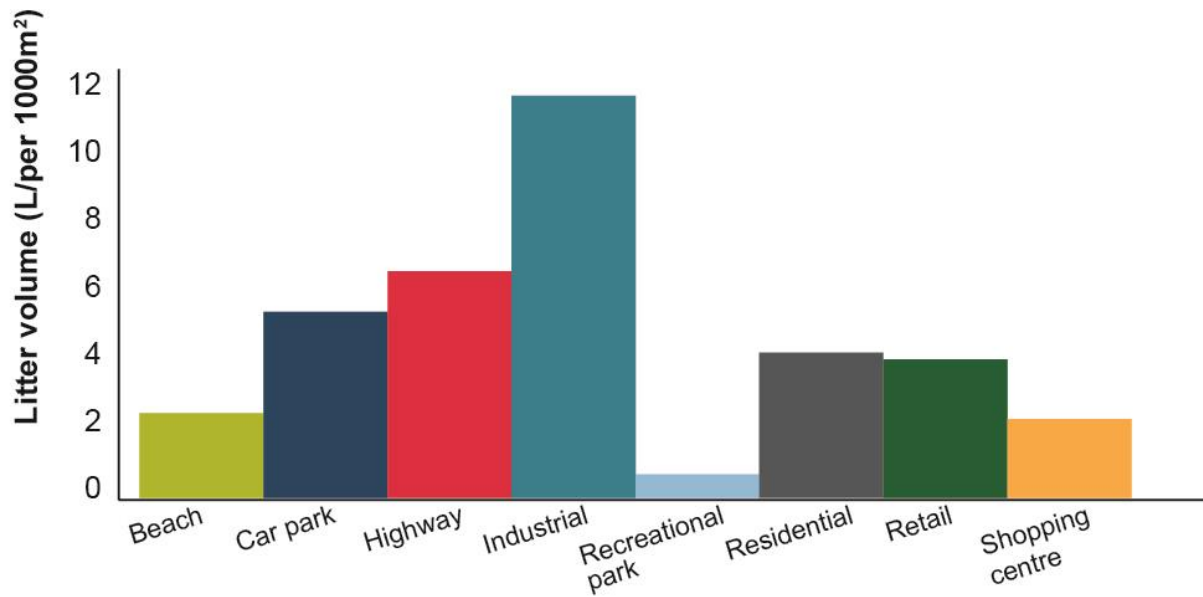


Figure 5: The volume of CDS covered beverage container litter per site in NSW 2015–16

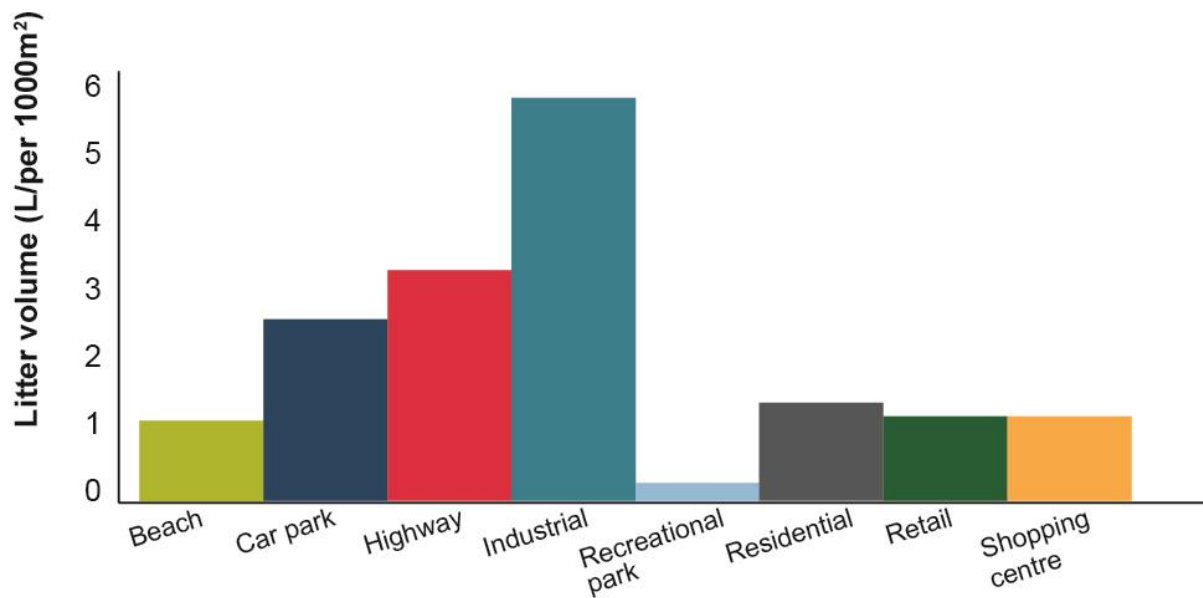


Figure 6: Changes in litter volume by category across NSW from 2014–15 to 2015–16

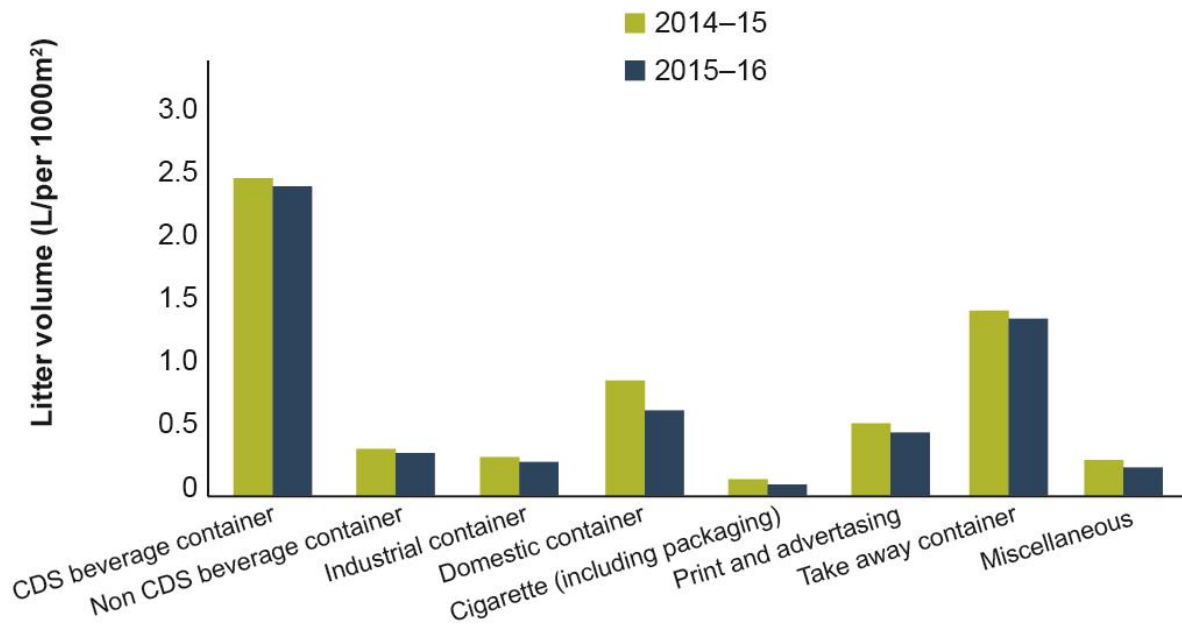
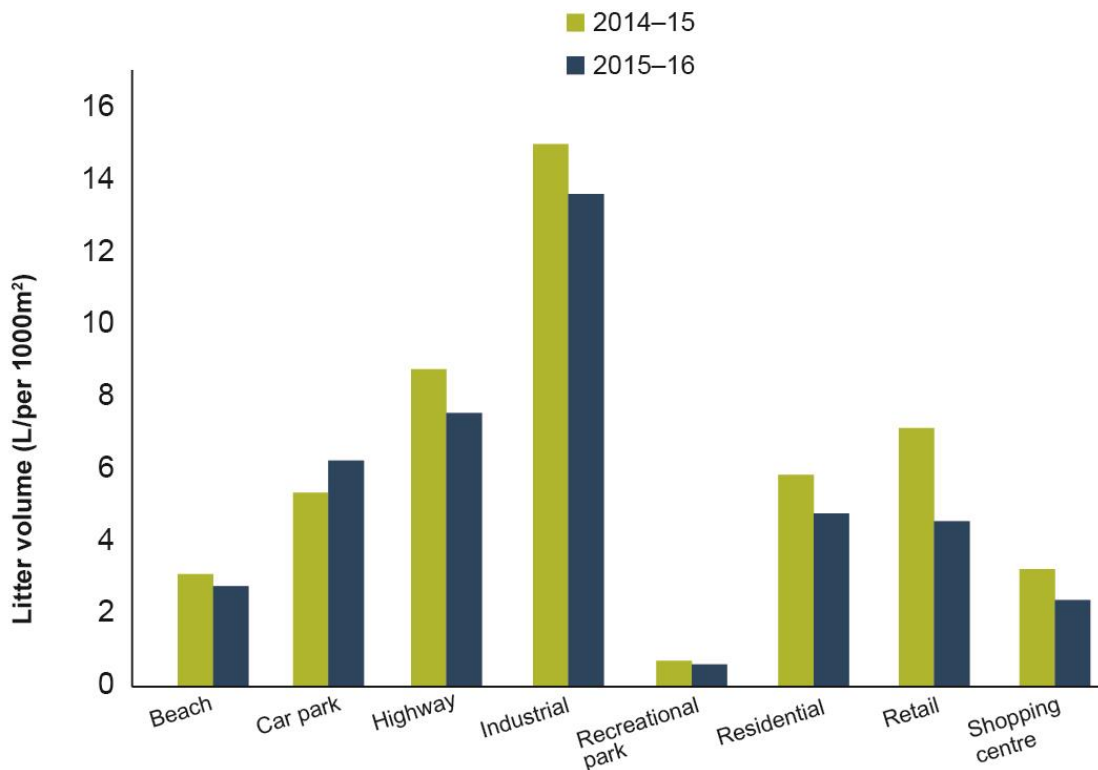


Figure 7: Changes in litter volume by site across NSW from 2014–15 to 2015–16



1.3 Comparisons by litter item counts (excluding illegal dumping)

- Cigarette butts continue to be the single most littered item representing around 33% of all items – or 15 butts per 1000 square metres in both 2014–15 and 2015–16.
- Miscellaneous items (including clothing items, nappies and paper bags) make up 43% of littered items, followed by take away containers (12%). CDS covered items make up 9% of all littered items.
- Industrial sites continue to have the highest proportion of litter with 98 items of litter per 1000m2. Retail (67 items), then car parks (55 items) follow.
- Recreational parks (14 items of litter per 1000m2), Beaches (34 items) and residential (33 items) remain relatively low in terms of number of littered items.

Figure 8: Category of litter items in NSW 2015–16

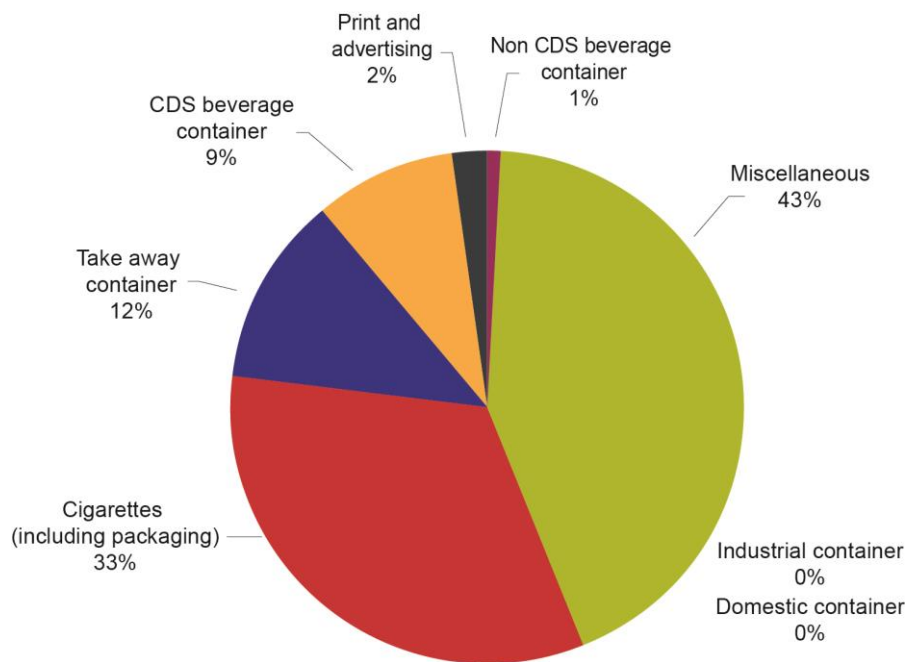


Figure 9: Changes in the number of litter items by category across NSW from 2014–15 to 2015–16

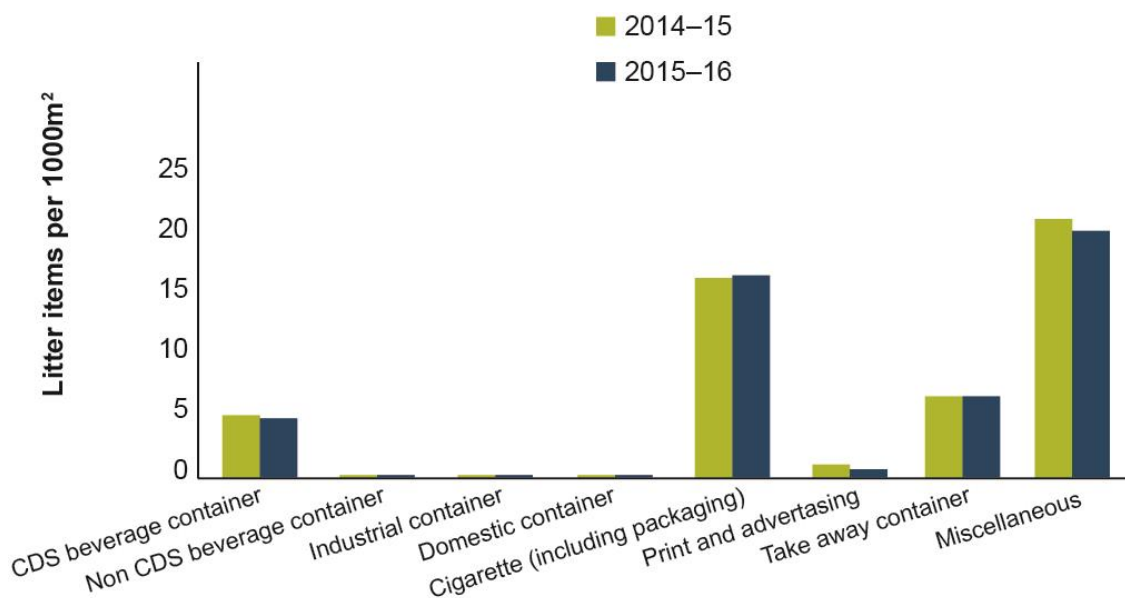
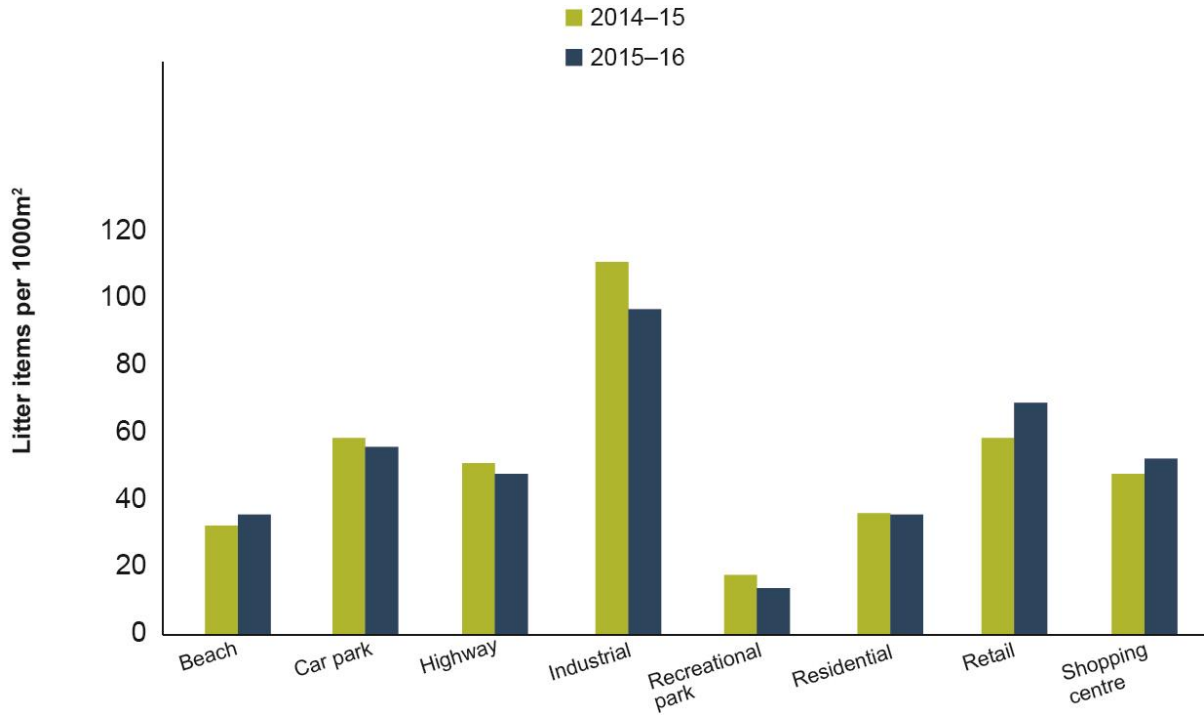


Figure 10: Changes in the number of litter items by site across NSW from 2014–15 to 2015–16



Appendix: NLI data

NSW NLI Litter data – items

NSW - ANNUAL 2015		Items								
		Beach	Car Park	Highway	Industrial	Recreational Park	Residential	Retail	Shopping Centre	Total
CIGARETTE BUTTS		112	723	794	507	137	234	568	298	3372
GLASS	Alcoholic sodas / spirit-based mixers, all sizes		5	4	1					9
	Beer, all colours of glass, <750ml	2	18	29	22		7			77
	Beer, all colours of glass, 750ml+	1	1	17	2		1			21
	Cider/fruit based etc.		3		1					3
	Flav.wtr/fruit j. dr/sprts dr. (non-carb.) <1 litre		3	1	1		2		1	6
	Flav.wtr/fruit j. dr/sprts dr. (non-carb.) 1 litre+			1	3					3
	Flav. water/soft drink (carbonated) <1 litre		5	5	5		6		2	21
	Flav. water/soft drink (carbonated) 1 litre+		18	2						19
	Fruit juice, < 1 litre		1		1			1		2
	Fruit juice, 1 litre+		2							2
	Other glass	1	17	11	11	5	6	5	1	56
	Plain water (carbonated or non-carb.), <1 litre							1		1
	Plain water (carbonated or non-carb.), 1 litre+						1			1
	Wine & spirit, all sizes		3	4	3	1				10
Wine cooler, all sizes				1					1	
Total	3	72	69	49	6	22	6	3	228	
ILLEGAL DUMPING			11	8	7	1	2			27
METAL	Aerosols - pressure packs		2	3	1		1			7
	Alcoholic sodas & spirit-based mixers	1	5	22	4			1		32
	Beer, aluminium, all types, all sizes	1	1	15	4		1	1		22
	Cider/fruit based etc.				1			1		1
	Flav. water/soft drink, (carbonated), all sizes	4	36	106	53	1	37	25	19	280
	Flav. water/soft drink, (non-carb), all sizes		8	11	3		2			24
	Foil take away	1	14	21	8	1	8	3	6	60
	Food cans (including pet food)		4	8	7	1	3	1		23
	Industrial cans - all types		1		4					4
	Metal bottle tops and can pull rings	5	45	32	38	11	39	29	22	219
	Metal pieces	1	11	30	26	1	5	4	1	78
	Other foil	12	73	79	88	19	109	42	51	472
Total	24	197	326	234	32	204	105	99	1220	
MISCELLANEOUS	Clothing & materials	7	10	20	12	3	3	1		54
	Condoms		1							1
	Construction materials		1	1			1			2
	Disposable nappies		3	2						5
	Ice cream sticks	6	9	14	7	2	21	13	12	83
	Other miscellaneous		10	25	7	2	7	5	5	60
	Rubber pieces (not tyres)		6	8	7		3			23
	Syringes		1							1
	Tyres & pieces			10						10
	Total	13	38	79	33	7	34	18	17	237
PAPER/PAPERBOARD	Cartons, flavoured milk < 1 litre		7	9	9	2	5	3	2	35
	Cartons, flavoured milk 1 litre+		1	1						1
	Cartons, fruit juice, < 1 litre		2	1	4	1	2	1	1	10
	Cartons, fruit juice, 1 litre+		1	1	2					4
	Cartons, milk, plain (white) all sizes	1	3	5	4		2	1		17
	Cigarette packets	2	38	52	38	2	24	18	10	182
	Cups/take away containers	9	65	128	55	6	37	15	12	325
	Flav. water/fruit j. drink/sports drink, non-carb., <1 litre	1	3	3	4	3	3	1	1	16
	Flav. water / fruit j. drink/ sports drink, (non-carb.), 1 litre+									
	Ice cream wrappers	2	10	13	5	4	12	8	37	90
	Junk mail / free circulars	1	17	22	8	5	19	8	5	84
	Newspapers & magazines	1	1	18	2	3	51	3	1	78
	Other paper	44	274	299	254	66	240	112	99	1386
	Packages & boxes	1	18	18	10	2	10	5	2	64
	Paper bags	8	17	35	21	4	18	11	9	120
	Shopper dockets & related shopping paper (eg, lists)	2	35	25	22	1	20	35	36	173
Tickets, e.g. bus, ATM, vending machine etc.	2	30	19	11	1	12	34	28	136	
Total	71	518	645	446	95	451	252	240	2718	
PLASTIC	6 ring can holders		2	3	3		1			8
	Bags - heavier glossy typically branded carry bags		1	4					2	8
	Bags - supermarket type light weight carry bags	5	23	27	13	1	11	8	8	94
	Bread bag tags		8	10	7	3	18	15	6	66
	Containers, domestic type		1	5	2		2	4		12
	Containers, industrial e.g. oil		1		1					2
	Drink pouches	1		4	1	1				6
	Flav. milk, <1 litre	1	4	18	4			1	1	28
	Flav. milk, 1 litre+	1		4	1					5
	Flav.wtr/fruit j. dr. sprts dr etc.(non-carb) <1 litre	1	4	11	2		4	1	1	22
	Flav. wtr/fruit j. dr. sprts dr etc.(non-carb) 1 litre+		2	3	2		2			9
	Flav. water/soft drink (carbonated) <1 litre	1	14	33	7	1	6	3	3	66
	Flav. water/soft drink (carbonated) 1 litre+	1		12	4	1	1	1	1	19
	Fruit juice <1 litre		2	4	4		1			9
	Fruit juice, 1 litre+		1		1		2			3
	Lollipop sticks	3	11	10	8	14	20	13	16	93
	Other plastic	12	132	144	171	29	152	69	48	755
	Packing tape & straps	2	4	20	11	1	9	9	3	57
	Plain water (carbonated or non-carb) <1 litre	5	25	43	31	4	26	9	12	154
	Plain water (carbonated or non-carb) 1 litre+	1	2	5	1		2			11
	Plastic bottle tops	7	23	22	26	6	23	11	15	132
	Sacks - sheeting - other bags	1	2	11	8	1	3	2	1	28
	Snack bags & confectionary wrappers	18	40	79	51	22	41	32	22	303
	Spoons/ cutlery	5	23	17	7	5	1	6	3	66
	Straws	14	46	61	32	23	45	37	27	284
	Styrene foam boxes, sheets, etc			5	2			3		10
	Take away & cups	11	33	68	29	4	11	12	8	175
	White milk, all sizes		2	5			2			7
	Wine cask bladders		1				1			2
	Total	87	402	621	425	112	379	230	174	2428
	GRAND TOTAL	308	1960	2541	1700	388	1324	1179	830	10228

National NLI litter data – items

NATIONAL - ANNUAL 2015/2016		Items								
		Beach	Car Park	Highway	Industrial	Recreational Park	Residential	Retail	Shopping Centre	Total
CIGARETTE BUTTS		925	5934	5975	3320	990	2092	5484	4043	28761
GLASS	Alcoholic sodas / spirit-based mixers, all sizes	6	9	54	3	2	5	3	2	82
	Beer, all colours of glass, <750ml	15	40	313	61	4	30	20	7	489
	Beer, all colours of glass, 750ml+	15	7	37	13	1	7	2	2	82
	Cider/fruit based etc.	1	6	12	2	1	1	1	1	23
	Flav.wtr/fruit j. dr/sprts dr, (non-carb), <1 litre		3	10	2		6	3	1	24
	Flav.wtr/fruit j. dr/sprts dr, (non-carb), 1 litre+			1	3		1	1		5
	Flav. water/soft drink (carbonated) <1 litre	1	6	9	5	1	7	1	3	30
	Flav. water/soft drink (carbonated) 1 litre+		18	1	2		2	1		23
	Fruit juice, < 1 litre	1	1	2	2	1	1	1	1	9
	Fruit juice, 1 litre+	1	2	1	1					4
	Other glass	35	97	226	60	21	54	36	20	546
	Plain water (carbonated or non-carb.), <1 litre	2	2	8	1	1	4	1	2	18
	Plain water (carbonated or non-carb.), 1 litre+			1		1	1	1		3
	Wine & spirit, all sizes	9	6	25	7	1	1		1	48
	Wine cooler, all sizes	7		1	1		2			10
	Total	90	196	698	159	30	119	67	36	1392
	ILLEGAL DUMPING		2	13	30	16	1	15	3	3
METAL	Aerosols - pressure packs	2	4	17	7	2	3	2		34
	Alcoholic sodas & spirit-based mixers	15	23	217	42	5	15	6	6	328
	Beer, aluminium, all types, all sizes	16	18	165	32	6	18	3	5	261
	Cider/fruit based etc.	4	10	25	11	4	6	10	3	72
	Flav. water/soft drink, (carbonated), all sizes	20	71	656	188	14	88	46	36	1117
	Flav. water/soft drink, (non-carb), all sizes	3	15	35	10	6	35	2	1	105
	Foil take away	13	40	107	34	14	37	26	21	290
	Food cans (including pet food)	1	9	31	14	2	15	5	3	78
	Industrial cans - all types	5	25	21	21	12	13	5	8	109
	Metal bottle tops and can pull rings	96	258	256	158	131	146	181	108	1331
	Metal pieces	22	82	353	127	28	68	30	32	740
	Other foil	56	189	305	196	91	236	101	109	1283
	Total	249	740	2185	837	313	678	414	330	5745
MISCELLANEOUS	Clothing & materials	44	65	385	104	38	70	19	22	745
	Condoms	2	3	1	3	1				9
	Construction materials	14	6	35	21	5	21	2	2	104
	Disposable nappies	2	4	4	1	1	2	2		14
	Ice cream sticks	40	40	32	17	40	56	53	32	310
	Other miscellaneous	18	46	114	35	19	34	25	24	312
	Rubber pieces (not tyres)	24	43	236	69	22	37	16	13	458
	Syringes	1	1	12		1			1	14
	Tyres & pieces	5	2	140	11	1	2	2	3	165
	Total	149	208	957	258	125	220	118	95	2128
PAPER/PAPERBOARD	Cartons, flavoured milk < 1 litre	2	17	138	22	4	18	9	5	214
	Cartons, flavoured milk 1 litre+	1	1	5	3				1	10
	Cartons, fruit juice, < 1 litre	1	7	15	7	3	8	4	1	44
	Cartons, fruit juice, 1 litre+	1	2	1	4	1			1	8
	Cartons, milk, plain (white) all sizes	2	6	16	8		4	1	1	36
	Cigarette packets	14	109	281	118	14	70	53	33	690
	Cups/take away containers	48	186	817	229	44	131	78	50	1582
	Flav. water/fruit j. drink/sports drink, non-carb, <1 litre	1	3	11	7	3	5	2	2	33
	Flav. water / fruit j. drink/ sports drink, (non-carb), 1 li	1	1	1	1					4
	Ice cream wrappers	21	23	87	20	18	32	38	46	284
	Junk mail / free circulars	3	34	69	31	8	88	28	20	279
	Newspapers & magazines	6	9	61	21	5	114	10	6	231
	Other paper	296	945	2765	1078	403	1007	608	439	7539
	Packages & boxes	7	80	413	142	8	49	29	15	740
	Paper bags	26	71	256	100	26	73	62	38	652
	Shopper docket & related shopping paper (eg, lists)	18	166	90	65	21	70	124	165	716
	Tickets, e.g. bus, ATM, vending machine etc.	10	83	45	23	9	49	92	81	390
Total	455	1738	5067	1875	565	1713	1136	901	13448	
PLASTIC	6 ring can holders	6	4	7	5	4	2	3		30
	Bags - heavier glossy typically branded carry bags	5	5	47	10	2	13	3	4	87
	Bags - supermarket type light weight carry bags	25	40	162	53	7	44	24	24	377
	Bread bag tags	28	23	19	16	62	28	23	16	213
	Containers, domestic type	4	5	33	11	1	7	7	2	68
	Containers, industrial e.g. oil		1	15	3	1	1	1		20
	Drink pouches	1	3	8	2	1	1	6		22
	Flav. milk, <1 litre	5	18	172	49	2	13	12	4	274
	Flav. milk, 1 litre+	2	8	14	5		2	1		30
	Flav.wtr/fruit j. dr, sprts dr etc.(non-carb) <1 litre	2	11	76	7	2	10	5	2	114
	Flav. wtr/fruit j. dr, sprts dr etc.(non-carb) 1 litre+	2	7	24	6	4	3	2	1	47
	Flav. water/soft drink (carbonated) <1 litre	11	34	264	51	3	24	13	14	412
	Flav. water/soft drink (carbonated) 1 litre+	6	7	50	9	2	6	3	3	84
	Fruit juice <1 litre	2	7	29	13	4	6	3	2	64
	Fruit juice, 1 litre+			4	3	1	3		1	11
	Lollipop sticks	70	77	45	25	101	81	80	45	522
	Other plastic	201	556	1826	817	247	647	320	228	4840
	Packing tape & straps	16	27	288	114	11	60	23	9	546
	Plain water (carbonated or non-carb) <1 litre	19	50	231	82	15	68	23	20	505
	Plain water (carbonated or non-carb) 1 litre+	4	5	32	12	4	4	1	1	61
	Plastic bottle tops	98	185	356	163	125	162	146	75	1308
	Sacks - sheeting - other bags	8	11	191	88	12	20	8	13	349
	Snack bags & confectionary wrappers	93	229	640	266	190	347	264	119	2146
	Spoons/ cutlery	35	81	108	33	36	27	35	32	386
	Straws	95	209	396	134	124	190	145	98	1389
	Styrene foam boxes, sheets, etc	10	10	159	84	2	26	6	3	299
	Take away & cups	60	129	485	137	36	106	70	42	1063
	White milk, all sizes	1	3	12	1		3		1	19
	Wine cask bladders	2	1	1	2	1	1		1	8
	Total	805	1738	5687	2195	992	1897	1220	753	15284
	GRAND TOTAL	2672	10565	20596	8659	3014	6733	8440	6161	66838

