

NATIONAL LITTER INDEX 2018 - 2019

VICTORIA RESULTS

KEEP AUSTRALIA BEAUTIFUL NATIONAL ASSOCIATION September 2019

www.kab.org.au

Contents

Introduction		3
Methodology		3
Summary		7
Litter Monitor	Results	7
Litter Monitor	Tables	16

Introduction

The 2018/19 survey reports the results of biannual litter counts at the same, undisclosed 151 sites across Victoria. While over time additional rural highway sites have been added, the heart of the survey remains and the NLI is Australia's only long term, consistent survey of litter. Also unchanged is its aim to build a deeper understanding of what is being littered, and where, and how that is changing over time.

The National Litter count was initiated in during November 2005, with a second count conducted in May 2006. The National KAB reporting commenced in 2006/07, the 2017/18 National litter counts were conducted during November 2018 and May 2019.

Purpose

The purpose of the National Litter Index is to provide insight regarding:

- The presence of litter items at sites within broadly comparable regions.
- Estimated volumes of litter objects within the litter stream, based upon a volume-per-item model.
- The contribution of objects recognised within established litter categories to the overall litter stream.

It is expected that the information derived from this research will be used by governments and community organisations to develop policies/ programs that will reduce litter and create increased pride in communities.

Limitations

The National Litter Index is not a study of littering behaviour. It is exclusively intended as an assessment of the presence of litter objects within surveyed regions. As such, no corrections for population densities are carried out. The information derived from the Index provides no indication of whether residents of a particular region litter more or less frequently than those in a different region. It does, however, provide insight regarding (a) the relative presence or absence of litter objects and particular material types within the regions surveyed, and (b) result trends over time. As such, findings are considered to be broadly but tentatively standardised to regions of a similar type.

Methodology

<u>Scope</u>

Sites surveyed within the research program were sampled primarily from urban and near-urban areas (i.e. generally within 50km of the urban areas surrounding each state capital). Generalisation of findings to regional locations must therefore be made with caution.

The total area surveyed across all NLI sites in Victoria was 239,403m². This area spanned a total of 151 sites.

<u>Sites</u>

All sites incorporated within the survey were categorised according to 8 different site types. Uniform guidelines were conformed to during site selection. Site specifications vary from 500 square metres (beaches) to 3,000 square metres (highways).

Residential

A street area approximately 150 metres in length, along both sides of the road from the front of the properties on each side of that road extending to the gutter including litter in the gutter.

Beach

An area of approximately 50 metres long and 10 metres wide, positioned on one or across both sides of a jetty, boat ramp or main entry access point to beach.

Industrial

A street area approximately 150 metres long within an industrial area, the count area to be from the fence line or immediate front of the properties to the gutter including litter in the gutter

Car Park

An area of approximately 30 by 50 metres in an open space public car park at a point distant from the entrance to the car park.

Shopping Centre

An area approximately 50 metres long and 25 metres wide, directly outside of the main shopping centre building and including one or across both sides of a major entrance.

Retail Strip/ Shops - Street Precinct

An area approximately 150 metres long in front of a strip of shops, extending from the front of the shops to the street gutter and including litter in the gutter.

Recreational Park

An area of approximately 40 by 50 metres in a park area which includes a playground but which is not in the immediate vicinity of a shop or kiosk. The areas should be within a frequently used park.

<u>Highway</u>

Highways include open major roadways bounded by a vegetated area that may include an open drain.

The count area commences from the area beginning at the edge of the road, and extending out from the road to the nearest fence/ boundary or up to a distance of 10 metres out from the road side if no such fence/ boundary exists. Two such areas should be collected from, one on each side of the road. Each region should extend for a length of approximately 200 metres along the road.

Site Type Representation

The following table outlines the number of sites within each of the 8 distinct site types that were sampled within Victoria.

	All Other States
Beach	16
Car Park	23
Highway	27
Industrial	17
Recreational Park	13
Residential	26
Retail	15
Shopping Centre	14
Total	151

<u>Litter Counter Training</u>

The litter categorisations and assumptions used during the counts of designated sites were broadly as follows:

- A standard data collection form, was used when conducting the litter counts. A copy of this form is provided in the Appendices.
- Counters were trained to carefully analyse the litter to ensure that it was properly identified before recording it on the survey form. For example, to determine whether an item is glass and not clear plastic, or to differentiate between fruit juice and fruit drink as these are recorded on different sections of the form.
- Broken bottles were counted as one bottle, a bag of dumped garbage was considered to be
 one item of "illegal dumping", and scattered newspaper pages were counted as one
 newspaper.
- While individual cigarette butts are counted, where there are large volumes of cigarette butts an estimated count is acceptable.
- For the purpose of the Litter Count, all waste located within any count site is litter apart from that properly disposed of in a waste receptacle.
- Organic matter (including food, chewing gum, and dog faeces) was not recorded during the count.

Reporting

Litter counts have been conducted bi-annually in November and May across the years from 2005/06, unless stated otherwise, the 2018/19 results are reported on an annual basis incorporating average figures corresponding to November 2018 and May 2019 counts.

Category Consolidation

The NLI is a data rich survey and as a result is complex to interpret. To simplify we have consolidated various litter items into broader categories as represented in the following table.

Most of the groupings should be self-evident but it is worth explaining the beverage container category in more detail. In this instance we have included in the beverage container category only those items currently classified as eligible containers as part of the SA, NT and NSW CDS schemes.

Consolidated Category	Historical Classification
Butts & Packaging	Cigarette Butts
Dutts & Fackaging	Paper/Paperboard - Cigarette packets
	Glass - Alcoholic sodas / spirit-based mixers, all sizes
	Glass - Beer, all colours of glass, <750ml Glass - Beer, all colours of glass, 750ml+
	Glass - Cider/fruit based etc.
	Glass - Flav. water/soft drink (carbonated) <1 litre
	Glass - Flav. water/soft drink (carbonated) 1 litre+
	Glass - Flav.wtr/fruit j. dr/sprts dr, (non-carb), <1 litre
	Glass - Flav.wtr/fruit j. dr/sprts dr, (non-carb), 1 litre+
	Glass - Fruit juice, < 1 litre Glass - Plain water (carbonated or non-carb.), <1 litre
	Glass - Plain water (carbonated or non-carb.), 1 litre+
	Glass - Wine cooler, all sizes
	Metal - Alcoholic sodas & spirit-based mixers
	Metal - Beer, aluminium, all types, all sizes
Beverage Containers	Metal - Cider/fruit based etc.
	Metal - Flav. water/soft drink, (carbonated), all sizes
	Metal - Flav. water/soft drink, (non-carb), all sizes
	Paper/Paperboard - Cartons, flavoured milk < 1 litre
	Paper/Paperboard - Cartons, fruit juice, < 1 litre
	Paper/Paperboard - Flav. water / fruit j. drink/ sports drink, (non-carb), 1 litre+ Paper/Paperboard - Flav. water/fruit j. drink/sports drink, non-carb, <1 litre
	Plastic - Drink pouches
	Plastic - Flav. milk, <1 litre
	Plastic - Flav. water/soft drink (carbonated) <1 litre
	Plastic - Flav. wtr/fruit j. dr, sprts dr etc.(non-carb) 1 litre+
	Plastic - Flav.wtr/fruit j. dr, sprts dr etc.(non-carb) <1 litre
	Plastic - Fruit juice <1 litre
	Plastic - Plain water (carbonated or non-carb) <1 litre
	Plastic - Plain water (carbonated or non-carb) 1 litre+
	Metal - Foil take away
	Metal - Metal bottle tops and can pull rings
	Miscellaneous - Ice cream sticks
	Paper/Paperboard - Coffee cups Paper/Paperboard - Cups/take away containers
	Paper/Paperboard - Cups/take away containers Paper/Paperboard - Ice cream wrappers
Take Away	Plastic - Lollipop sticks
	Plastic - Plastic bottle tops
	Plastic - Snack bags & confectionary wrappers
	Plastic - Spoons/ cutlery
	Plastic - Straws
	Plastic - Take away & cups
Other Glass	Glass - Other glass
Other Paper	Paper/Paperboard - Other paper
Other Plastic	Plastic - Other plastic
Plastic Bags	Plastic - Bags - heavier glossy typically branded carry bags Plastic - Bags - supermarket type light weight carry bags
	Glass - Fruit juice, 1 litre+
	Glass - Wine & spirit, all sizes
	Metal - Aerosols - pressure packs
	Metal - Food cans (including pet food)
	Metal - Industrial cans - all types
	Metal - Metal pieces
	Metal - Other foil
	Miscellaneous - Clothing & materials Miscellaneous - Condoms
	Miscellaneous - Condoms Miscellaneous - Construction materials
	Miscellaneous - Construction materials Miscellaneous - Disposable nappies
	Miscellaneous - Other miscellaneous
	Miscellaneous - Other miscenarieous Miscellaneous - Rubber pieces (not tyres)
	Miscellaneous - Syringes
	Miscellaneous - Tyres & pieces
	Paper/Paperboard - Cartons, flavoured milk 1 litre+
General Other	Paper/Paperboard - Cartons, flavoured milk 1 litre+ Paper/Paperboard - Cartons, fruit juice, 1 litre+ Paper/Paperboard - Cartons, milk, plain (white) all sizes
General Other	Paper/Paperboard - Cartons, flavoured milk 1 litre+ Paper/Paperboard - Cartons, fruit juice, 1 litre+ Paper/Paperboard - Cartons, milk, plain (white) all sizes Paper/Paperboard - Junk mail / free circulars
General Other	Paper/Paperboard - Cartons, flavoured milk 1 litre+ Paper/Paperboard - Cartons, fruit Juice, 1 litre+ Paper/Paperboard - Cartons, milk, plain (white) all sizes Paper/Paperboard - Junk mall / free circulars Paper/Paperboard - Newspapers & magazines
General Other	Paper/Paperboard - Cartons, flavoured milk 1 litre+ Paper/Paperboard - Cartons, fruit juice, 1 litre+ Paper/Paperboard - Cartons, milk, plain (white) all sizes Paper/Paperboard - Junk mail / free circulars Paper/Paperboard - Newspapers & magazines Paper/Paperboard - Packages & boxes
General Other	Paper/Paperboard - Cartons, flavoured milk 1 litre+ Paper/Paperboard - Cartons, fruit juice, 1 litre+ Paper/Paperboard - Cartons, milk, plain (white) all sizes Paper/Paperboard - Junk mail / free circulars Paper/Paperboard - Newspapers & magazines Paper/Paperboard - Packages & boxes Paper/Paperboard - Paper bags
General Other	Paper/Paperboard - Cartons, flavoured milk 1 litre+ Paper/Paperboard - Cartons, fruit juice, 1 litre+ Paper/Paperboard - Cartons, milk, plain (white) all sizes Paper/Paperboard - Junk mail / free circulars Paper/Paperboard - Newspapers & magazines Paper/Paperboard - Paper bags Paper/Paperboard - Paper bags Paper/Paperboard - Paper bags Paper/Paperboard - Shopper dockets & related shopping paper (eg, lists)
General Other	Paper/Paperboard - Cartons, flavoured milk 1 litre+ Paper/Paperboard - Cartons, fruit juice, 1 litre+ Paper/Paperboard - Cartons, milk, plain (white) all sizes Paper/Paperboard - Junk mail / free circulars Paper/Paperboard - Newspapers & magazines Paper/Paperboard - Packages & boxes Paper/Paperboard - Paper bags Paper/Paperboard - Shopper dockets & related shopping paper (eg, lists) Paper/Paperboard - Tickets, e.g. bus, ATM, vending machine etc.
General Other	Paper/Paperboard - Cartons, flavoured milk 1 litre+ Paper/Paperboard - Cartons, fruit juice, 1 litre+ Paper/Paperboard - Cartons, milk, plain (white) all sizes Paper/Paperboard - Junk mail / free circulars Paper/Paperboard - Newspapers & magazines Paper/Paperboard - Paper bags Paper/Paperboard - Paper bags Paper/Paperboard - Paper bags Paper/Paperboard - Shopper dockets & related shopping paper (eg, lists)
General Other	Paper/Paperboard - Cartons, flavoured milk 1 litre+ Paper/Paperboard - Cartons, fruit Juice, 1 litre+ Paper/Paperboard - Cartons, milk, plain (white) all sizes Paper/Paperboard - Junk mail / free circulars Paper/Paperboard - Newspapers & magazines Paper/Paperboard - Packages & boxes Paper/Paperboard - Paper bags Paper/Paperboard - Shopper dockets & related shopping paper (eg, lists) Paper/Paperboard - Tickets, eg, bus, ATM, vending machine etc. Plastic - 6 ring can holders
General Other	Paper/Paperboard - Cartons, flavoured milk 1 litre+ Paper/Paperboard - Cartons, fruit juice, 1 litre+ Paper/Paperboard - Cartons, milk, plain (white) all sizes Paper/Paperboard - Junk mail / free circulars Paper/Paperboard - Papers & magazines Paper/Paperboard - Packages & boxes Paper/Paperboard - Paper bags Paper/Paperboard - Shopper dockets & related shopping paper (eg, lists) Paper/Paperboard - Tickets, e.g. bus, ATM, vending machine etc. Plastic - 6 ring can holders Plastic - Bread bag tags Plastic - Containers, domestic type Plastic - Containers, industrial e.g. oil
General Other	Paper/Paperboard - Cartons, flavoured milk 1 litre+ Paper/Paperboard - Cartons, fruit juice, 1 litre+ Paper/Paperboard - Cartons, milk, plain (white) all sizes Paper/Paperboard - Junk mail / free circulars Paper/Paperboard - Newspapers & magazines Paper/Paperboard - Packages & boxes Paper/Paperboard - Paper bags Paper/Paperboard - Paper bags Paper/Paperboard - Tickets, e.g. bus, ATM, vending machine etc. Plastic - 6 ring can holders Plastic - 6 ring can holders Plastic - Bread bag tags Plastic - Containers, industrial e.g. oil Plastic - Flav. milk, 1 litre+
General Other	Paper/Paperboard - Cartons, flavoured milk 1 litre+ Paper/Paperboard - Cartons, fruit juice, 1 litre+ Paper/Paperboard - Cartons, fruit, plain (white) all sizes Paper/Paperboard - Junk mail / free circulars Paper/Paperboard - Newspapers & magazines Paper/Paperboard - Packages & boxes Paper/Paperboard - Paper bags Paper/Paperboard - Shopper dockets & related shopping paper (eg, lists) Paper/Paperboard - Tickets, e.g. bus, ATM, vending machine etc. Plastic - 6 ring can holders Plastic - Bread bag tags Plastic - Containers, domestic type Plastic - Containers, industrial e.g. oil Plastic - Flav. water/Soft drink (carbonated) 1 litre+
General Other	Paper/Paperboard - Cartons, flavoured milk 1 litre+ Paper/Paperboard - Cartons, fruit juice, 1 litre+ Paper/Paperboard - Cartons, milk, plain (white) all sizes Paper/Paperboard - Junk mail / free circulars Paper/Paperboard - Paper saw magazines Paper/Paperboard - Paper bags Paper/Paperboard - Paper bags Paper/Paperboard - Shopper dockets & related shopping paper (eg, lists) Paper/Paperboard - Tickets, e.g. bus, ATM, vending machine etc. Plastic - 6 ring can holders Plastic - 6 read bag tags Plastic - Containers, domestic type Plastic - Containers, industrial e.g. oil Plastic - Flav. milk, 1 litre+ Plastic - Flav. milk, 1 litre+ Plastic - Flav. unite, 1 litre+
General Other	Paper/Paperboard - Cartons, flavoured milk 1 litre+ Paper/Paperboard - Cartons, fruit juice, 1 litre+ Paper/Paperboard - Cartons, milk, plain (white) all sizes Paper/Paperboard - Junk mail / free circulars Paper/Paperboard - Newspapers & magazines Paper/Paperboard - Packages & boxes Paper/Paperboard - Paper bags Paper/Paperboard - Paper bags Paper/Paperboard - Tickets, e.g. bus, ATM, vending machine etc. Plastic - 6 ring can holders Plastic - 6 ring can holders Plastic - Fared bag tags Plastic - Containers, industrial e.g. oil Plastic - Flav. milk, 1 litre+ Plastic - Flav. milk, 1 litre+ Plastic - Flav. milk, 1 litre+ Plastic - Favit juice, 1 litre+ Plastic - Packing tape & straps
General Other	Paper/Paperboard - Cartons, flavoured milk 1 litre+ Paper/Paperboard - Cartons, flavoured milk 1 litre+ Paper/Paperboard - Cartons, milk, plain (white) all sizes Paper/Paperboard - Junk mail / free circulars Paper/Paperboard - Paper samagazines Paper/Paperboard - Paper bags Paper/Paperboard - Paper bags Paper/Paperboard - Shopper dockets & related shopping paper (eg, lists) Paper/Paperboard - Tickets, e.g. bus, ATM, vending machine etc. Plastic - 6 ring can holders Plastic - Bread bag tags Plastic - Containers, domestic type Plastic - Containers, industrial e.g. oil Plastic - Flav. milk, 1 litre+ Plastic - Flav. water/Sort drink (carbonated) 1 litre+ Plastic - Fruit juice, 1 litre+ Plastic - Fruit juice, 1 litre+ Plastic - Sacks - sheeting - other bags
General Other	Paper/Paperboard - Cartons, flavoured milk 1 litre+ Paper/Paperboard - Cartons, fruit juice, 1 litre+ Paper/Paperboard - Cartons, milk, plain (white) all sizes Paper/Paperboard - Junk mail / free circulars Paper/Paperboard - Paves magazines Paper/Paperboard - Paper bags Paper/Paperboard - Paper bags Paper/Paperboard - Shopper dockets & related shopping paper (eg, lists) Paper/Paperboard - Tickets, e.g. bus, ATM, vending machine etc. Plastic - 6 ring can holders Plastic - 6 ring can holders Plastic - Containers, industrial e.g. oil Plastic - Containers, industrial e.g. oil Plastic - Flav. milk, 1 litre+ Plastic - Flav. milk, 1 litre+ Plastic - Fruit juice, 1 litre+ Plastic - Packing tape & straps Plastic - Saytene foam boxes, sheets, etc
General Other	Paper/Paperboard - Cartons, flavoured milk 1 litre+ Paper/Paperboard - Cartons, flavoured milk 1 litre+ Paper/Paperboard - Cartons, milk, plain (white) all sizes Paper/Paperboard - Junk mail / free circulars Paper/Paperboard - Paper samagazines Paper/Paperboard - Paper bags Paper/Paperboard - Paper bags Paper/Paperboard - Shopper dockets & related shopping paper (eg, lists) Paper/Paperboard - Tickets, e.g. bus, ATM, vending machine etc. Plastic - 6 ring can holders Plastic - Bread bag tags Plastic - Containers, domestic type Plastic - Containers, industrial e.g. oil Plastic - Flav. milk, 1 litre+ Plastic - Flav. water/Sort drink (carbonated) 1 litre+ Plastic - Fruit juice, 1 litre+ Plastic - Fruit juice, 1 litre+ Plastic - Sacks - sheeting - other bags

Victorian Summary

- Victoria recorded a 6.0% decrease in total litter items counted and a 13.2% decrease by volume of litter in 2018/19 (the decrease in volume was 12.0% when not taking illegal dumping into account).
- There were less litter items recorded across most litter categories with the exception of takeaway food and beverage litter, other plastic and other paper litter
- Cigarette related litter was the main contributor to the lower count with a decrease of 13.2% items counted in 2018/19, cigarette related litter represented 54.4% of the overall litter counted.
- Decreases and increases in Overall litter at site types was mainly attributed to decreases and increases in cigarette related litter
- Retail precincts have the greatest litter loads in litter count terms, while industrial precincts have the greatest loads in volumetric terms.

Victorian Litter Monitor Results

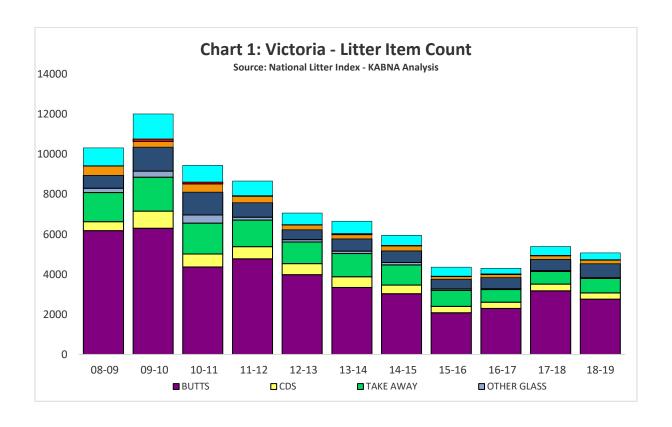
The national litter index surveys 151 sites across Victoria, with an area surveyed of 239,403 square metres. While the primary focus of the monitor is across Melbourne suburban areas, a number of regional/rural sites, are also surveyed. A further 15 rural highway/road sites are surveyed and reported in the attached appendix.

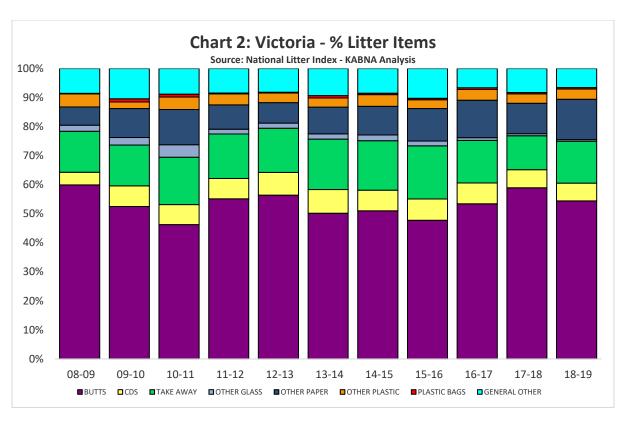
Tab	le 1: Victorian L	itter Monitor A	rea by Site Typ	es
Site Types	N	lumber Surveye	ed	Areas Surveyed (sq m)
	Suburban	Regional	Total	
Beaches	10	6	16	8,000
Car Parks	19	4	23	36,657
Major Roads / Highways	17	10	27	93,950
Industrial Precincts	13	4	17	15,545
Recreational Parks	7	6	13	25,360
Residential Streets	21	5	26	33,075
Retail Precincts	10	5	15	10,311
Shopping Centres	12	2	14	16,505
TOTAL	109	42	151	239,403

Litter Counts

As shown in the following table, the 2018/19 monitor counted 6.0% less litter than items counted in 2017/18 in Victoria. The main contributor to the lower count was a 13.2% decrease in cigarette butts which represented 54.4% of the overall litter counted. The overall decrease was offset to some degree by increases of 24.9% in other paper litter and 6.5% in takeaway food and beverage litter. The results are below the levels counted in other previous monitors from 2008/09 to 2014/15.

						Items				
	Table 2: Victoria Litter Item Count Comparison 2017/18 to 2018/19		Car Park	Highway	Industrial	Recreational Park	Residential	Retail	Shopping Centre	Total
	Butts & Packaging	86	512	300	361	152	483	486	382	2760
	Beverage Containers	3	43	131	59	5	44	12	16	310
	Takeaway Food & Beverage	24	119	164	73	72	144	113	26	732
	Other Glass		17	3	6		3			30
VIC	Other Paper	24	119	159	56	32	122	105	91	705
2018/19	Other Plastic	16	29	52	15	13	38	14	4	179
	General Other	12	39	93	88	20	51	21	13	333
	Plastic Bags		5	6	3	1	4	3	2	23
	Illegal Dumping			1			2			2
	GRAND TOTAL	163	881	907	658	294	888	752	533	5074
	Butts & Packaging	103	761	333	312	200	615	431	429	3181
	Beverage Containers	7	71	125	38	6	48	11	31	336
	Takeaway Food & Beverage	45	126	114	55	47	132	67	48	688
	Other Glass		12	10	5		7	1	2	37
VIC	Other Paper	33	130	121	42	34	79	50	77	565
2017/18	Other Plastic	23	34	43	13	11	37	7	10	176
	General Other	29	78	129	44	28	68	29	43	388
	Plastic Bags	2	4	10	3	2	2	1	6	27
	Illegal Dumping		1	2		1				3
	GRAND TOTAL	240	1214	886	510	326	986	594	643	5398
	Butts & Packaging	16.6%	32.7%	9.9%	-15.9%	23.8%	21.5%	-12.8%	11.0%	13.2%
	Beverage Containers	61.5%	40.1%	-4.4%	-56.0%	16.7%	9.4%	-4.5%	47.5%	7.6%
	Takeaway Food & Beverage	47.2%	5.6%	-44.1%	-31.8%	-53.8%	-9.5%	-68.7%	46.9%	-6.5%
	Other Glass		-37.5%	75.0%	-10.0%		53.8%	100.0%	100.0%	18.9%
%	Other Paper	28.8%	8.5%	-31.0%	-32.1%	7.4%	-54.8%	-112.1%	-18.3%	-24.9%
REDUCTION	Other Plastic	31.1%	14.9%	-20.9%	-15.4%	-23.8%	-1.4%	-107.7%	57.9%	-2.0%
KEDUCTION	General Other	58.6%	49.7%	27.9%	-101.1%	27.3%	25.7%	28.1%	69.4%	14.2%
	Plastic Bags	100.0%	-42.9%	36.8%		66.7%	-166.7%	-500.0%	63.6%	13.2%
	Illegal Dumping		100.0%	66.7%		100.0%				20.0%
	Grand Total (excluding illegal dumping)	32.3%	27.4%	-2.5%	-29.0%	9.8%	10.0%	-26.6%	17.1%	6.0%
	GRAND TOTAL	32.3%	27.5%	-2.4%	-29.0%	10.0%	9.9%	-26.6%	17.1%	6.0%





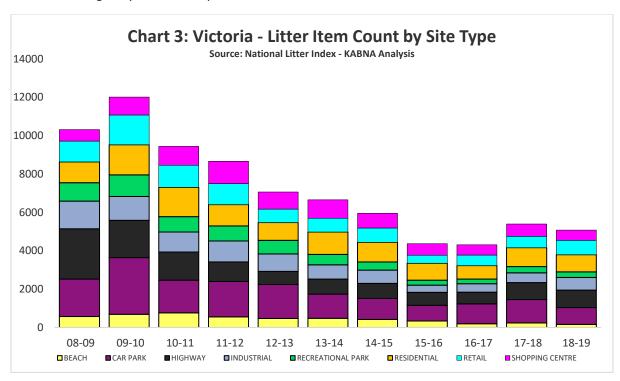
Volumetric Impacts

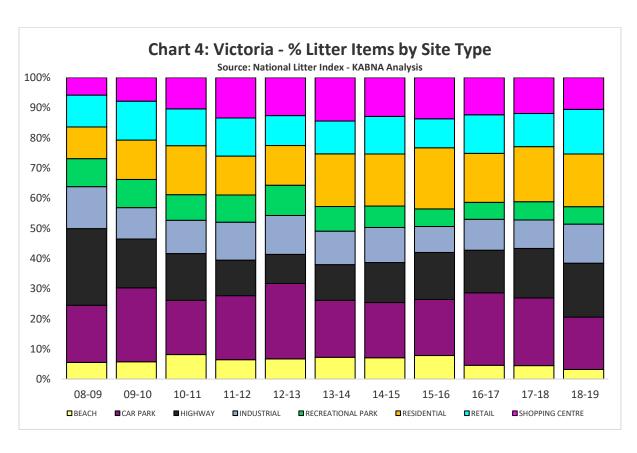
There was also a decrease in litter in Victoria in volumetric terms in 2018/19, with a 12.0% decrease in litter volume (excluding illegal dumping) when compared to the 2017/18 monitor. The main contributors to lower litter volume were decreases of 5.7% in takeaway food and beverage litter and 4.4% in beverage containers.

					١	Volume - Litre	es			
	Table 3: Victoria Litter Item Voulme Comparison 2017/18 to 2018/19	Beach	Car Park	Highway	Industrial	Recreational Park	Residential	Retail	Shopping Centre	Total
	Butts & Packaging	0.010	3.543	3.954	3.526	0.126	2.015	1.253	1.350	15.778
	Beverage Containers	1.013	22.070	79.152	32.567	2.579	23.594	6.518	8.462	175.954
	Takeaway Food & Beverage	1.980	6.624	23.636	15.305	1.923	7.165	8.756	0.829	66.218
	Other Glass		0.324	0.049	0.108	0.049	0.059			0.589
VIC	Other Paper	0.079	0.402	0.536	0.188	0.106	0.411	0.355	0.306	2.383
2018/19	Other Plastic	0.019	0.036	0.065	0.019	0.016	0.047	0.017	0.005	0.224
	General Other	0.300	4.018	19.212	7.273	8.507	17.785	1.629	2.108	60.832
	Plastic Bags		0.277	0.311	0.085	0.044	0.136	0.155	0.095	1.103
	Illegal Dumping			12.000			36.000			48.000
	GRAND TOTAL	3.401	37.294	138.914	59.070	13.351	87.212	18.683	13.155	371.080
	Butts & Packaging	0.230	3.136	2.760	2.758	0.241	2.684	0.703	1.900	14.411
	Beverage Containers	4.028	37.212	65.507	22.186	3.331	27.794	5.572	18.400	184.032
	Takeaway Food & Beverage	1.510	7.821	17.369	4.955	1.237	7.760	0.619	1.521	70.233
	Other Glass		0.236	0.196	0.098	0.029	0.128	0.010	0.029	0.727
VIC	Other Paper	0.112	0.439	0.409	0.142	0.115	0.265	0.167	0.259	1.908
2017/18	Other Plastic	0.028	0.042	0.054	0.016	0.013	0.046	0.008	0.012	0.219
	General Other	1.191	29.088	59.485	9.490	0.991	14.512	2.017	5.551	94.882
	Plastic Bags	0.068	0.119	0.322	0.085	0.051	0.051	0.017	0.187	0.899
	Illegal Dumping		12.000	36.000		12.000				60.000
	GRAND TOTAL	7.165	90.093	182.103	39.730	18.009	53.240	9.113	27.859	427.312
	B :: A B . I . :	05.70/	40.00/	10.00/	07.00/	47.50/	04.00/	70.40/	00.00/	0.50/
	Butts & Packaging	95.7%	-13.0%	-43.3%	-27.8%	47.5%	24.9%	-78.4%	28.9%	-9.5%
	Beverage Containers	74.9%	40.7%	-20.8%	-46.8%	22.6%	15.1%	-17.0%	54.0%	4.4%
	Takeaway Food & Beverage	-31.1%	15.3%	-36.1%	-208.9%	-55.4%	7.7%	-1315.1%	45.5%	5.7%
	Other Glass		-37.5%	75.0%	-10.0%	-66.7%	53.8%	100.0%	100.0%	18.9%
%	Other Paper	28.8%	8.5%	-31.0%	-32.1%	7.4%	-54.8%	-112.1%	-18.3%	-24.9%
REDUCTION	Other Plastic	31.1%	14.9%	-20.9%	-15.4%	-23.8%	-1.4%	-107.7%	57.9%	-2.0%
	General Other	74.8%	86.2%	67.7%	23.4%	-758.3%	-22.6%	19.2%	62.0%	35.9%
	Plastic Bags	100.0%	-133.2%	3.6%		14.0%	-166.7%	-816.2%	49.3%	-22.6%
	Illegal Dumping		100.0%	66.7%		100.0%				20.0%
	Grand Total (excluding illegal dumping)	52.5%	52.2%	13.1%	-48.7%	-122.2%	3.8%	-105.0%	52.8%	12.0%
	GRAND TOTAL	52.5%	58.6%	23.7%	-48.7%	25.9%	-63.8%	-105.0%	52.8%	13.2%

Littering Location

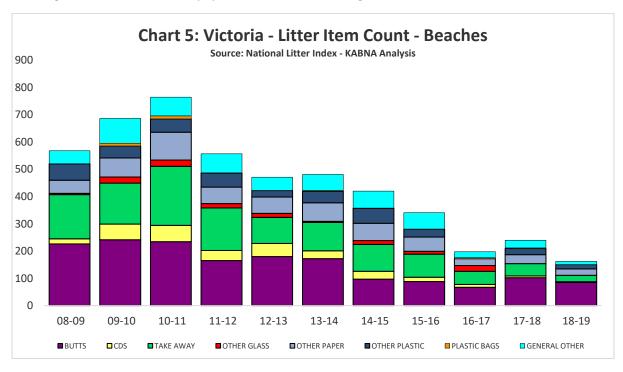
The location of the litter found in Victoria is contained in the following charts and demonstrates there was less litter recorded across most site types in 2018/19 including beaches, car parks, recreational parks, residential sites and shopping centres, while there was an increase in the number of litter items observed at highways, industrial precincts and retail sites.





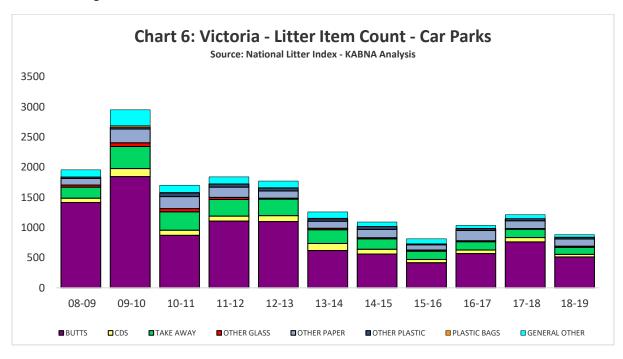
Beaches/Recreational Swimming Locations

There was an overall 32.3% decline in litter counted around beaches and recreational swimming locations in 2018/19. There was a fall in litter across all categories, with the lower level of litter mainly attributed to decreases of 58.6% in other general litter, 47.2% in takeaway food and beverage litter, 28.8% in other paper litter and 16.6% in cigarette related litter.



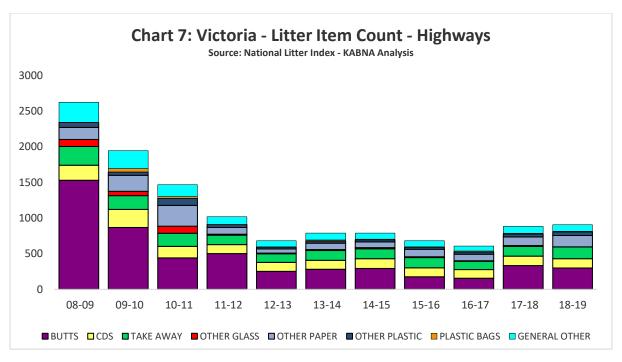
Car Parks

Litter levels decreased at car parks by 27.5% in 2018/19. There were decreases in litter across all categories except other glass litter with the overall lower level of litter mainly attributed to a 32.7% decrease in cigarette related litter.



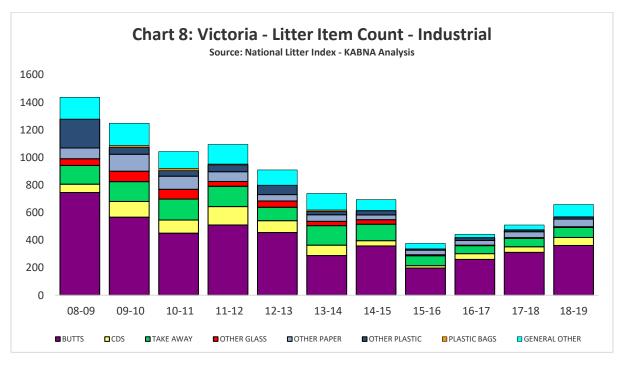
Major Roads/Highways

There was a marginal rise in litter of 2.4% at major roads/highways in Victoria in 2018/19 which was mainly attributed to an increase of 44.1% in takeaway food and beverage litter and 31.0% in other paper litter. The increase in litter was offset to some extent with decreases of 27.9% in other general litter and 9.9% in cigarette related litter.



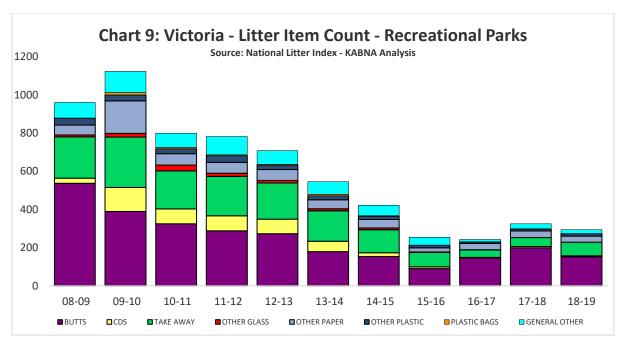
Industrial Precincts

Industrial precincts experienced a rise of litter of 29.0% in 2018/19, however, this was lower than levels recorded from 2008/09 to 2014/15. Litter levels rose across all categories, with the higher level of litter mainly attributed to increases of 101.1% in general other litter, 56.0% in beverage containers, 31.8% in takeaway food and beverage litter and 15.9% in cigarette related litter.



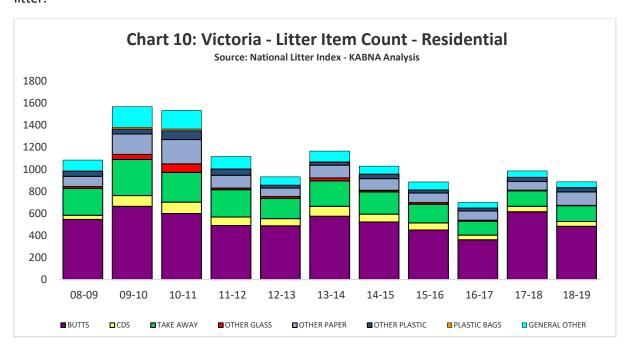
Recreational Parks

Litter levels decreased at recreational parks by 10.0% overall in 2018/19, the result was also lower than all other litter levels recorded from 2008/09 to 2014/15. The decline in overall litter counted was mainly attributed to a decrease of 23.8% in cigarette related litter. Lower litter levels were offset to some degree by an increase of 53.8% in takeaway food and beverage litter.



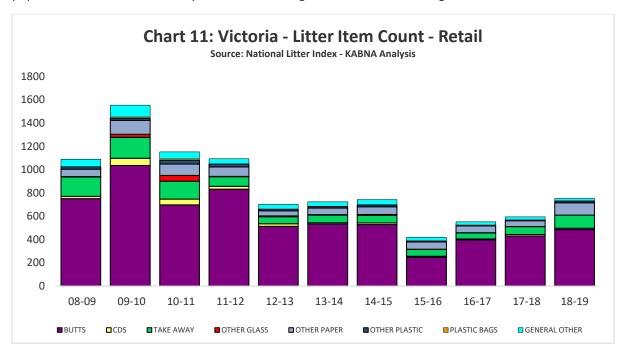
Residential Streets

Similarly, litter levels decreased at residential streets by 9.9% in 2018/19, the result was also lower than all other litter levels recorded from 2008/09 to 2014/15. The decline in overall litter counted was also mainly attributed to a decrease of 21.5% in cigarette related litter. Lower litter levels were offset to some extent by an increase of 54.8% in other paper litter and 6.5% in takeaway food and beverage litter.



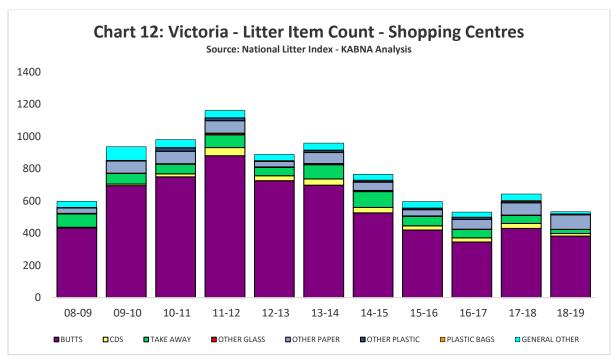
Retail Precincts

Litter levels increased at retail precincts by 26.6% overall in 2018/19, however, this was lower than previous litter levels from 2008/09 to 2014/15. The rise was mainly due to increases of 112.1% in other paper litter, 68.7% in takeaway food and beverage litter and 12.8% in cigarette related litter.



Shopping Centres

There was a 17.1% fall in litter recorded at shopping centres in Victoria in 2018/19 which was mainly attributed to decreases of 47.5% in beverage containers, 46.9 % in takeaway food and beverage litter, 69.4% in general other litter and 11.0% in cigarette related litter.



Normalisation for Area Surveyed

The data below has been normalised to the number of items per 1,000m² and litres per 1,000m² to be able to compare the amounts and volumes of litter by different site types.

The method to normalise the data uses the following calculation:

Items or litres per
$$1,000m^2 = \underline{\text{the number of items counted}} \times \text{multiplied by } 1,000$$
divided by the area of sites

Litter items per 1,000m²

As demonstrated in the tables below, when the area surveyed is taken into account, retail precincts have the highest litter count in Victoria. The 2018/19 monitor recorded, on average, 21 items per 1000m², down from 23 items per 1000m² in the 2017/18 monitor.

						Items				
Table 4: Victoria Litter Item Count per 1,000m² Comparison 2017/18 to 2018/19		Beach	Car Park	Highway	Industrial	Recreational Park	Residential	Retail	Shopping Centre	Total
VIC	Areas Surveyed	8000	36657	93950	15545	25360	33075	10311	16505	239403
2018/19	Items counted (excl illegal dumping)	163	881	906	658	294	887	752	533	5072
2010/13	Per 1,000 sq m	20	24	10	42	12	27	73	32	21
VIC	Areas Surveyed	8000	36657	93950	15545	25360	33075	10311	16505	239403
2017/18	Items counted (excl illegal dumping)	240	1214	884	510	326	986	594	643	5396
2017/10	Per 1,000 sq m	30	33	9	33	13	30	58	39	23

<u>Litter volume per 1,000m² (excluding illegal dumping)</u>

A different result was observed in volumetric terms, with industrial precincts having the highest volumes of litter per 1000m² in Victoria. The total overall volume of litter has decreased to 1.36 litres per 1000m² in 2018/19, down from to 1.53 litres per 1000m² in the 2017/18.

					١	/olume - Li	tres			
	Table 5: Victoria Litter Volume per 1,000m ² Comparison 2017/18 to 2018/19		Car Park	Highway	Industrial	Recreational Park	Residential	Retail	Shopping Centre	Total
VIC	Areas Surveyed	8000	36657	93950	15545	25360	33075	10311	16505	239403
2018/19	Litter volume (excl illegal dumping)	3.401	37.294	126.914	59.070	13.351	51.212	18.683	13.155	323.080
2010/13	Per 1,000 sq m	0.43	1.02	1.35	3.80	0.53	1.55	1.81	0.80	1.35
VIC	Areas Surveyed	8000	36657	93950	15545	25360	33075	10311	16505	239403
2017/18	Litter volume (excl illegal dumping)	7.165	78.093	146.103	39.730	6.009	53.240	9.113	27.859	367.312
2017/10	Per 1,000 sq m	0.90	2.13	1.56	2.56	0.24	1.61	0.88	1.69	1.53

Victorian Litter Monitor Tables

<u>Detailed Litter Count Tables – Victoria</u>

						Items					Beverage	Containers	Takeaw	ay Food
	Table 6: Victoria - Litter Count Analysis (2018 & 19 AVERAGE)	Beach	Car Park	Highway	Industrial	Recreational Park	Residential	Retail	Shopping Centre	Total	Beverage container	Items	Takeaway Food	Items
	CIGARETTE BUTTS	101.5	746.5	320.5	299	198.5	602.5	427.5	420.5	3117				
	Alcoholic sodas / spirit-based mixers, all sizes	0.5	1.5	1.5						4	у	4		
	Beer, all colours of glass, <750ml Beer, all colours of glass, 750ml+		8.5	16	2.5	0.5	2		2.5	32	У	32		
	Cider/fruit based etc.		2	2.5						5	y y	5		
	Flav.wtr/fruit j. dr/sprts dr, (non-carb), <1 litre			2.3			1.5			4	у	4		
	Flav.wtr/fruit j. dr/sprts dr, (non-carb), 1 litre+		0.5							1	y	1		
S	Flav. water/soft drink (carbonated) <1 litre			0.5		0.5	2			3	у	3		
GLASS	Flav. water/soft drink (carbonated) 1 litre+	0.5			0.5						у			
5	Fruit juice, < 1 litre Fruit juice, 1 litre+	0.5			0.5					1	у	1		
	Other glass		12	10	5	1.5	6.5	0.5	1.5	37				
	Plain water (carbonated or non-carb.), <1 litre	0.5	2.5	2.5))))))))	3			9	У	9		
	Plain water (carbonated or non-carb.), 1 litre+			0.5			1.5			2	У	2		
	Wine & spirit, all sizes													
	Wine cooler, all sizes Total	2	27	36	8	3	17	1	4	96	y waaaaaaaaaa	59		
	ILLEGAL DUMPING	_	0.5		•	0.5		337.53.53.53.53.53		3		33		
	Aerosols - pressure packs		3	2.5			1		1.5	8				
	Alcoholic sodas & spirit-based mixers		10		5.5	1	3	0.5	3	37	у	37		
	Beer, aluminium, all types, all sizes Cider/fruit based etc.		8.5 0.5	23.5 0.5	0.5	0.5		1	3	40	у	40		
	Flav. water/soft drink, (carbonated), all sizes	1.5	18.5	28.5	11	1	11	4	6.5	82	y	82		
4	Flav. water/soft drink, (non-carb), all sizes		1				2	2	0.5	6	у	6		
METAL	Foil take away		0.5							1			у	1
>	Food cans (including pet food)			1	1.5		0.5		1.5	5				
	Industrial cans - all types Metal bottle tops and can pull rings	3	27	7	11	6	9	25.5	6	95			٧	95
	Metal pieces	2	6	6	1		4		2	21)	
	Other foil	15.5	14	19.5	4	3.5	15	5		89				7(27(7)7
	Total	22	89	103	38	12	46	38	37	383		165		96
	Clothing & materials Condoms	0.5	1.5	1	2.5	2	3.5	1		4				
ns n	Construction materials	1	0.5	1.5	0.5	1	1.5		0.5	7				
MISCELLANEOUS	Disposable nappies	2.5	3		0.0	0.5	2.5	3	0.5	12				
AN AN	Ice cream sticks	3	7.5	2	1	1	5		0.5	26			у	26
- ∃	Other miscellaneous		4		1.5		3	2	2.5	19				
SC	Rubber pieces (not tyres)		0.5	1	0.5	3.5				13				
Σ	Syringes Tyres & pieces	1	0.5	3	0.5		0.5			<u>1</u> 5				
	Total	9	23	21	14	9	17	12	4	108		(((((((((((((((((((((((((((((((((((((((26
	Cartons, flavoured milk < 1 litre	0.5	2	1.5	0.5		4.5		3.5	13	у	13		
	Cartons, flavoured milk 1 litre+			1	0.5		0.5	0.5	0.5	1		4		
	Cartons, fruit juice, < 1 litre Cartons, fruit juice, 1 litre+				1.5		0.5	0.5	0.5	4	у	4		
	Cartons, milk, plain (white) all sizes	72555	0.5							1				
	Cigarette packets	1	14		12.5	1	12	3	8.5	65				
PAPER/PAPERBOARD	Cups/take away containers	1.5	6.5		5	1	6.5		1	38			у	38
SBC	Coffee cups Flav. water/fruit j. drink/sports drink, non-carb, <1 litre	0.5	11	25 2.5	6.5	1	8.5	1.5	2	56	••	-		
E E	Flav. water/rigit j. drink/ sports drink, non-carb, < r litre+		0.5	2.5			1.5 0.5			5 1	у	5		
ΙÞΑ	Ice cream wrappers	1	1.5	1	0.5	0.5	3	1	1.5	10		55555555555	У	10
E E	Junk mail / free circulars		5	2	0.5		4.5		0.5	13				
PA	Newspapers & magazines		2		1.5		1.5	0.5	1.5	10				
-	Other paper	33			42		78.5	49.5	76.5	565				
	Packages & boxes Paper bags	0.5	4 5		3 4		5.5 2.5	9.5	0.5	25 39				
	Shopper dockets & related shopping paper (eg, lists)		3.5			0.5	1.5	1	13	21				
	Tickets, e.g. bus, ATM, vending machine etc.			1.5	1		3.5		0.5	10				
	Total	40	187	208	79	44	135	70 0.5	112	873 3		23		48
	6 ring can holders Bags - heavier glossy typically branded carry bags	1	3	6.5	2.5	0.5	1		2.5	17				
	Bags - supermarket type light weight carry bags	1	0.5	3		1	0.5	0.5	3	10				
	Bread bag tags		1	1.5	0.5		2.5	0.5		14				
	Containers, domestic type		0.5	1.5			0.5			3				
	Containers, industrial e.g. oil Drink pouches		0.5	1					4	3	٧	3		
	Flav. milk, <1 litre		2	7	3		2	1	0.5	16	y	16		
	Flav. milk, 1 litre+										у			
	Flav.wtr/fruit j. dr, sprts dr etc.(non-carb) <1 litre		2		2		2	1	1.5	12	у	12		
	Flav. wtr/fruit j. dr, sprts dr etc.(non-carb) 1 litre+		1.5		_	0.5	0.5			3	У	3		
	Flav. water/soft drink (carbonated) <1 litre Flav. water/soft drink (carbonated) 1 litre+		1.5	0.5	0.5		6	1	0.5	21	y y	21		
L	Fruit juice <1 litre		0.5		0.0		1.5		1.5	4	у	4		
PLASTIC	Fruit juice, 1 litre+			7237777										
Ĭ	Lollipop sticks	6.5	8.5				8.5			51			у	51
_	Other plastic	22.5	33.5		13		37		9.5 0.5	176 14				
	Packing tape & straps Plain water (carbonated or non-carb) <1 litre	3			6.5		2 5		3.5	14 40	v	40		
	Plain water (carbonated or non-carb) 1 litre+		0.5		1.5	1.3	3		1	5	у	5	10100000	
	Plastic bottle tops	9	22.5	18		7.5	27.5	10		112			у	112
	Sacks - sheeting - other bags			7					0.5	8				
	Snack bags & confectionary wrappers	9			9.5		28.5	8	23.5	130			у	130
	Spoons/ cutlery Straws	0.5	3.5 14		5.5	6.5	2.5 29.5	2.5	2	19 95			y	19 95
	Styrene foam boxes, sheets, etc	1.5			5.5		23.0		3	10			у	30
	Take away & cups	1	11		5		11.5	1.5	2.5	57			у	57
	White milk, all sizes		7777777		0.5		7277277			1				
	Wine cask bladders	C.C.	1/2	107	72	CO.	470	47	67	024		105		462
	Total GRAND TOTAL	66 240	142 1214	197 886	73 510	60 326	170 986	47 594	67 643	821 5398		105 351		463 632
	January Count	2.40	12.14	550	510	520	550	JJ4	040	5550		001		UJE

<u>Detailed Litter Volume Tables – Victoria</u>

		Т			V	olume - Li	tres				Beverage	Containers	Takeav	ay Food
	Table 7: Victoria - Litter Volume Analysis (2018 & 19 AVERAGE)	Beach	Car Park	Highway	Industrial	Recreational Park	Residential	Retail	Shopping Centre	Total	Beverage container	ltems	Takeaway Food	Items
	CIGARETTE BUTTS	0.011673 0.187150	0.085848	0.036858 0.561450	0.034385	0.022828	0.069288	0.049163	0.048358	0.358398 1.310050		1.310		
	Alcoholic sodas / spirit-based mixers, all sizes Beer, all colours of glass, <750ml	0.18/150	3.934855	7.406786	1.157310	0.231462	0.925848		1.157310	14.813573	y V	14.814		
	Beer, all colours of glass, 750ml+		2000	200000000000000000000000000000000000000	727777777			200000000	500000000000000000000000000000000000000		у			
	Cider/fruit based etc.		0.915706	1.144633			0.004400			2.060339 1.940004	У	2.060		
	Flav.wtr/fruit j. dr/sprts dr, (non-carb), <1 litre Flav.wtr/fruit j. dr/sprts dr, (non-carb), 1 litre+		0.638623	1.108574			0.831430			0.638623	y y	1.940 0.639		
	Flav. water/soft drink (carbonated) <1 litre		0.000	0.197920		0.197920	0.791681			1.187522	у	1.188		
GLASS	Flav. water/soft drink (carbonated) 1 litre+	0.040050			0.040050						У	0.404		
ਰ	Fruit juice, < 1 litre Fruit juice, 1 litre+	0.212058			0.212058					0.424115	У	0.424		
	Other glass		0.235680	0.196400	0.098200	0.029460	0.127660	0.009820	0.029460	0.726680				
	Plain water (carbonated or non-carb.), <1 litre	0.290534	1.452672	1.452672			1.743207			4.939086	У	4.939		
	Plain water (carbonated or non-carb.), 1 litre+ Wine & spirit, all sizes			0.529625			1.588875			2.118500	у	2.119		
	Wine cooler, all sizes													
	Total	0.689742	7.738987	12.598061	1.467568	0.458842	6.008702	0.009820	1.186770	30.158492		29.432		
	ILLEGAL DUMPING Aerosols - pressure packs		12.000000 2.052720	36.000000 1.710600		12.000000	0.684240		1.026360	60.000000 5.473920	200000000000000000000000000000000000000			
	Alcoholic sodas & spirit-based mixers		4.314000	5.823900	2.372700	0.431400	1.294200	0.215700	1.294200	15.746100	у	15.746		
	Beer, aluminium, all types, all sizes		3.666900	10.137900	1.294200	0.215700		0.431400	1.294200	17.040300	у	17.040		
	Cider/fruit based etc. Flav. water/soft drink, (carbonated), all sizes	0.638303	0.215700 7.872402	0.215700 12.127755	0.215700 4.680888	0.425535	4.680888	1.702141	2.765979	0.647100 34.893892	y	0.647 34.894		
₩.	Flav. water/soft drink, (non-carb), all sizes		0.381600				0.763200	0.763200	0.190800	2.098800	У	2.099		
METAL	Foil take away		0.231190	0.231190						0.462380			у	0.462
2	Food cans (including pet food) Industrial cans - all types			0.463800	0.695700		0.231900		0.695700	2.087100				
	Metal bottle tops and can pull rings	0.012000	0.108000	0.028000	0.044000	0.024000	0.036000	0.102000	0.024000	0.378000			У	0.378
	Metal pieces	0.021200	0.063600	0.063600	0.010600		0.042400		0.021200	0.222600				
	Other foil Total	0.024180	0.021840 18.927952	0.030420 30.832865	0.006240 9.320028	0.005460 1.102095	0.023400 7.756228	0.007800 3.222241	0.019500 7.331939	0.138840 79.189032		70.426		0.840
	Clothing & materials	0.095003	0.076500	0.107100	0.038250	0.030600	0.053550	0.015300	7.331939	0.336600		70.426		0.040
S	Condoms	0.180000	0.540000	0.360000			0.360000			1.440000				
MISCELLANEOUS	Construction materials Disposable nappies	0.360000	0.180000	0.540000	0.180000	0.360000 0.000460	0.540000	0.002760	0.562500 0.000460	2.722500 0.011040				
ANE	Ice cream sticks	0.002300	0.002760	0.001840	0.000920	0.000920	0.002300	0.002760	0.000460	0.023460			V	0.023
	Other miscellaneous		0.054000	0.067500	0.020250	0.013500	0.040500	0.027000	0.033750	0.256500		(//////////////////////////////////////		
SCI	Rubber pieces (not tyres)		0.000082	0.000165	0.001316 0.001130	0.000576				0.002139 0.001130				
Σ	Syringes Tyres & pieces	0.225000	0.112500	0.675000	0.001130		0.112500			1.125000				
	Total	0.785360	0.972742	1.751605	0.241866	0.406056	1.113450	0.050120	0.597170	5.918369				0.023
	Cartons, flavoured milk < 1 litre Cartons, flavoured milk 1 litre+	0.336240	1.344960	1.008720	0.336240 0.506330	0.336240	3.026160		2.353680	8.742240 0.506330	у	8.742		
	Cartons, fruit juice, < 1 litre			0.624750	0.937125		0.312375	0.312375	0.312375	2.499000	٧	2.499		
	Cartons, fruit juice, 1 litre+													
	Cartons, milk, plain (white) all sizes	0.217870	0.506330 3.050180	2.723375	2.723375	0.217870	2.614440	0.653610	1.851895	0.506330 14.052615				
RD G	Cigarette packets Cups/take away containers	1.093425	4.738175	12.027675	3.644750	0.728950	4.738175	0.053010	0.728950	27.700100			٧	27.700
BO/	Coffee cups	0.245013	5.390282	12.250641	3.185167	0.490026	4.165218	0.735038	0.980051	27.441435				
Ä	Flav. water/fruit j. drink/sports drink, non-carb, <1 litre Flav. water / fruit j. drink/ sports drink, (non-carb), 1 litre+		0.302400 1.035000	0.756000			0.453600 1.035000			1.512000 2.070000	У	1.512 2.070		
PAPER/PAPERBOARD	lce cream wrappers	0.002400	0.003600	0.002400	0.001200	0.001200	0.007200	0.002400	0.003600	0.024000	У	2.070	у	0.024
ER	Junk mail / free circulars		0.870000	0.348000	0.087000		0.783000		0.087000	2.175000				
PAF	Newspapers & magazines	0.444540	2.360000	2.950000	1.770000	0.444000	1.770000	0.590000	1.770000	11.210000				
	Other paper Packages & boxes	0.111540	0.439400	0.408980	0.141960	0.114920 0.040000	0.265330 0.440000	0.167310	0.258570	1.908010 2.000000				
	Paper bags	0.021160	0.052900	0.095220	0.042320	0.047610	0.026450	0.100510	0.021160	0.407330				
	Shopper dockets & related shopping paper (eg, lists)		0.007105	0.002030	0.0000	0.001015	0.003045	0.002030	0.026390	0.041615				
	Tickets, e.g. bus, ATM, vending machine etc. Total	2.067648	20.420332	0.001320 34.079111	0.000880 13.616347	1.977831	0.003080 19.643073	0.002640 2.565913	0.000440 8.434111	0.008360 102.804365		14.823		27.724
	6 ring can holders		0.001500				0.001500	0.000750		0.003750				24
	Bags - heavier glossy typically branded carry bags	0.033940	0.101820	0.220610	0.084850	0.016970	0.033940	0.040070	0.084850	0.576980				
	Bags - supermarket type light weight carry bags Bread bag tags	0.033940	0.016970	0.101820 0.000345	0.000115	0.033940 0.001725	0.016970 0.000575	0.016970 0.000115	0.101820	0.322430 0.003105				
	Containers, domestic type		4.162000	12.486000			4.162000			20.810000				
	Containers, industrial e.g. oil		11.229000	22.458000					0.00	33.687000		0.050	4	
	Drink pouches Flav. milk, <1 litre		0.086250 1.065400	0.086250 3.728900	1.598100		1.065400	0.532700	0.086250	0.258750 8.256850	y V	0.259 8.257		
	Flav. milk, 1 litre+										У			
	Flav.wtr/fruit j. dr, sprts dr etc.(non-carb) <1 litre		1.475240	2.581669	1.475240		1.475240	0.737620	1.106430	8.851437	у	8.851		
	Flav. wtr/fruit j. dr, sprts dr etc.(non-carb) 1 litre+ Flav. water/soft drink (carbonated) <1 litre		1.201103 0.933165	1.201103 4.976880	1.244220	0.311055	0.600551 3.732660	0.622110	1.244220	3.002757 13.064310	y V	3.003 13.064		
	Flav. water/soft drink (carbonated) 1 litre+		0.000100	0.827000	0.827000	5.5.1033	37.35.77.77.77	0.022110	0.827000	2.481000	y	2.481		
2	Fruit juice <1 litre		0.200023	0.200023			0.600070		1.468391	2.468508	ý	2.469		
PLASTIC	Fruit juice, 1 litre+ Lollipop sticks	0.003445	0.004505	0.001060	0.000795	0.007155	0.004505	0.003180	0.002385	0.027030			V	0.027
- F	Other plastic	0.003445	0.041875	0.053750	0.016250	0.013125	0.046250	0.003180	0.011875	0.027030			y	0.021
	Packing tape & straps	0.000270	0.000810	0.001215	0.000540	0.000135	0.000540		0.000135	0.003645				
	Plain water (carbonated or non-carb) <1 litre Plain water (carbonated or non-carb) 1 litre+	2.363700	5.909250 0.770785	9.454800 3.083140	5.121350 2.312355	1.181850	3.939500	0.787900	2.757650 1.541570	31.516000 7.707850	У	31.516 7.708		
	Plastic bottle tops	0.072045	0.180113	0.144090	0.112070	0.060038	0.220138	0.080050	0.028018	0.896560	У	1.100	V	0.897
	Sacks - sheeting - other bags			0.002205					0.000158	0.002363				
	Snack bags & confectionary wrappers	0.070470	0.180090 0.033600	0.180090 0.014400	0.074385	0.039150 0.038400	0.223155	0.062640	0.184005 0.019200	1.013985 0.177600			у	1.014 0.178
	Spoons/ cutlery Straws	0.004800	0.033600	0.014400	0.019200	0.038400	0.024000	0.024000	0.019200	0.177600			y V	0.178
	Styrene foam boxes, sheets, etc	0.056250	0.018750	0.262500	0.037500		72271277271	77.77.757.257	311-5113/5172/51	0.375000			y	
1	Take away & cups	0.207020	2.277220	4.657950	1.035100	0.310530	2.380730	0.310530	0.517550	11.696630			у	11.697
		***************************************			1.068345					1.068345				
	White milk, all sizes Wine cask bladders	2222		333333333333333333333333333333333333333			555555555555555555555555555555555555555							
	White milk, all sizes Wine cask bladders Total GRAND TOTAL	2.915255 7.165360			15.050102		18.649411 53.240151		10.260231 27.858580	148.883135 427.311790		77.607 192.289		14.204 42.792

Appendix 1 - Rural Highways Results

The 2018/19 monitor of the rural road sites counted 3.6% less litter than observed in 2017/18, with the decrease across all litter categories except takeaway food and beverage packaging litter and general other litter which experienced increases. On a volumetric basis, there was a corresponding 11.0 % fall in litter volumes.

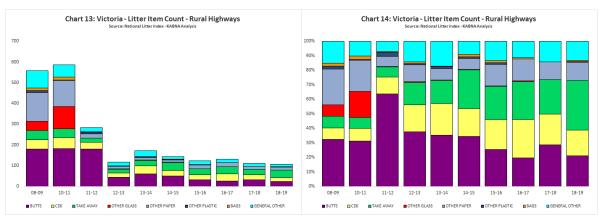
In 2018/19 takeaway food and beverage packaging litter made the largest contribution to the rural highways litter stream, followed by cigarette related litter.

As shown below, the latest monitor is a continuation in the longer-term trend of reduced litter levels on Victorian rural highways. There are also similarities between the rural highway sites and the broader NLI monitor of Victorian roads with both site types have some similar patterns in the types of litter in their litter stream.

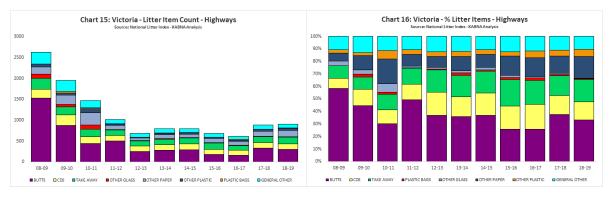
As shown in the table below, Victorian rural highways have lower litter loads (both in terms of items and their volumetric impact) than the broader NLI monitor of Victorian roads and the state as a whole.

Table 8: Victoria - Litter Count & Volumes per 1,000m² - Comparison of Major Highways and Rural Highways									
2018/19 Litter Loads	Vic Rural Highways	Vic NLI Highways	Vic NLI Total State						
Items Counted (per '000 sq m)	3.6	9.6	21.2						
Volume (litres per '000 sq m)	0.52	1.35	1.35						

Rural Highway Charts



Major Road Highway Charts



		Items	Volume - Litres
	RURAL H'WAYS ANNUAL		
		VIC	AIC
	Butts & Packaging	23	0.438
	Beverage Containers	19	9.563
	Takeaway Food & Beverage	37	4.683
	Other Glass	0	0.000
2018/19	Other Paper Other Plastic	14	0.046 0.001
	General Other	14	0.718
	Plastic Bags	1	0.061
	Illegal Dumping	0	0.000
	GRAND TOTAL	108	15.509
	Butts & Packaging	32	0.548
	Beverage Containers	24	11.188
	Takeaway Food & Beverage	27	3.314
	Other Glass Other Paper	0 14	0.000 0.046
2017/18	Other Plastic	0	0.046
	General Other	16	2.330
	Plastic Bags	0	0.000
	Illegal Dumping	0	0.000
	GRAND TOTAL	112	17.426
	Butts & Packaging	29.7%	20.1%
	Beverage Containers	19.1%	14.5%
	Takeaway Food & Beverage	-39.6%	-41.3%
	Other Glass	0.0%	0.0%
%	Other Paper Other Plastic	0.0%	0.0%
REDUCTION	General Other	12.5%	69.2%
	Plastic Bags	0.0%	0.0%
	Illegal Dumping	0.0%	0.0%
	Grand Total (excluding illegal dumping)	3.6%	11.0%
	GRAND TOTAL	3.6%	11.0%
2040140	Areas Surveyed	30000	30000
2018/19	Items counted excl illegal dumping)	108	16
	Per 1,000 sq m	3.6	0.52
	Areas Surveyed	30000	30000
2017/18	Items counted excl illegal dumping)	112	17
	Per 1,000 sq m	3.7	0.58
	Butts & Packaging	21%	3%
	Beverage Containers	18%	62%
SHARE OF	Takeaway Food & Beverage	34%	30%
TOTAL	Other Glass	0%	0%
LITTER	Other Paper	13%	0%
STREAM	Other Plastic	0%	0%
2018/19	General Other	13%	5%
	Plastic Bags	1% 0%	0% 0%
	Illegal Dumping GRAND TOTAL	100%	100%
	OIVAND TOTAL	10076	100 /0
YOY REDUCTION	ON	4	1.92

### CALARTIS ENTIS CALARTIS ENTIS 7 0,000 7 0 0,000 1 0 0 0 0 0 0 0 0			Items	Volume - Litres	Beverage Containers			Takeaway Food		
CHARTER BUTTS	VIC - 2018 & 19 AVERAGE		VIC	VIC	Beverage container	Items	Volume	Takeaway Food	Items	Volume
Service Coloran of plass Fighter										0.000
Sept. at copour of glabs () Print						500000000000000000000000000000000000000				
Files natifuel, all origins de, (concealls), 1 files		Beer, all colours of glass, 750ml+	0	0.000	у	0	0.000		0	0.000
Flow notifying Indigent 60, (possional) Steech										
Files materiard minic (achorated) Itles	GLASS	Flav.wtr/fruit j. dr/sprts dr, (non-carb), 1 litre+	0	0.000			0.000			0.000
Print pate. Vales										
Print pate. Vales										
Pian water (carbonated or nor carb) - 1 litre										
Plant vater (cathorizated or non-carb.) 1 filters 0 0.000 y 0 0.000 0 0.000 0 0.000 0					V					
Vivine cooler, all sizes		Plain water (carbonated or non-carb.), 1 litre+	SSSEXUCE CO-MINERON/A	0.000		0	0.000		0	
Total					v					
Aerosole - pressure packs			201010200000000000000000000000000000000							
Accordic codes & spins based movers 3 1,254 y 3 1,254 0 0,000										
Beer, aluminum, all types, all sizes					v					
Flav waterwind finds (carbonated) all sizes		Beer, aluminium, all types, all sizes	4	1.510	ý	4	1.510		0	0.000
Flav. waterinated fromis, (non-carb), all sizes 0 00000			C/222233331 SINSTERNATION							
Industrial cans - all types 0	METAL	Flav. water/soft drink, (non-carb), all sizes	0	0.000		0	0.000		0	0.000
Industrial cans - all types 0								у		
Metal bottle tops and can pull rings										
Content 1		Metal bottle tops and can pull rings		0.032				у		
Total										
Condoms		Total		4.370		9	3.868		9	0.263
Construction materials										
Tyres & pieces	NEOUS									
Tyres & pieces		Disposable nappies								
Tyres & pieces	Υ							y		
Tyres & pieces	Ë	Rubber pieces (not tyres)		0.000	W/21/21/21/21/21/21	0	0.000		0	0.000
Total	ž									
Cartons, flut juce, < li>Litre										
Cartons, fult, juice, < litre					у					
Cartons, milk, plane Milk					v					
Cigarette packets 2		Cartons, fruit juice, 1 litre+	0	0.000		0	0.000	\$ 555	0	0.000
Cupshake away containers	•		B10000927007002770035							
Packages & boxes	ARE	Cups/take away containers		2.187		0	0.000	у	3	2.187
Packages & boxes	SB 0							у		
Packages & boxes	I BEI		222222222222							
Packages & boxes	NP.	Ice cream wrappers	<u> </u>					у		
Packages & boxes	E E		S3452241241 - 002355135							
Paper bags 3	PA	Other paper	14	0.046		0	0.000		0	0.000
Shopper dockets & related shopping paper (eg, lists) 0 00000 0 0000 0 0000 0 0000 0 0000 0 0000 0 0000 0 00000 0 0000 0 0000 0 0000 0 0000 0 0000 0 0000 0 00000 0 0000 0 0000 0 0000 0 0000 0 0000 0 0000 0 0000 0 0000 0 0000 0 00000 0 00000 0 0000 0 0000 0 00										
Total 26		Shopper dockets & related shopping paper (eg, lists)		0.000			0.000			0.000
Sering can holders			22332103220TID=011007222222							
Bags - heavier glossy typically branded carry bags 1										
Bread bag tags		Bags - heavier glossy typically branded carry bags	1	0.044	\$	0	0.000		0	0.000
Containers, industrial e.g. oil 0 0.000 0 0.00										
Drink pouches 0		Containers, domestic type	0	0.000		0	0.000		0	0.000
Flav. milk, <1 litre					V					
Flav. milk, 1 litre+				0.799						0.000
Flav. wtr/fruit j. dr, sprts dr etc.(non-carb) 1 litre+		Flav. milk, 1 litre+	0	0.000	\$25,000 at 150,000	0	0.000		0	0.000
Flav. water/soft drink (carbonated) <1 litre										
Fruit juice <1 litre		Flav. water/soft drink (carbonated) <1 litre	0	0.000	у	0	0.000		0	0.000
Fruit juice, 1 litre+ 0 0 0.000 0 0 0.000 0 0 0.000 1 0 0.000 y 1 0.000 Other plastic 1 0.001 0 0.000 y 1 0.000 Packing tape & straps 3 0.001 0 0.000 0 0.000 Plain water (carbonated or non-carb) <1 litre 1 0.788 y 1 0.788 0 0.000 Plain water (carbonated or non-carb) 1 litre+ 0 0.000 y 0 0.000 0 0.000 Plastic bottle tops 4 0.032 0 0.000 y 4 0.032 Sacks - sheeting - other bags 0 0.000 0 0.000 0 0.000 Snack bags & confectionary wrappers 3 0.020 0 0.000 y 3 0.020 Spoons/ cutlery 2 0.014 0 0.000 y 2 0.014 Straws 8 0.033 0 0.000 y 2 0.014 Straws 8 0.033 0 0.000 y 8 0.033 Styrene foam boxes, sheets, etc 0 0.000 0 0.000 0 0.000 Take away & cups 2 0.414 0 0.000 y 2 0.414 White milk, all sizes 0 0.000 0 0.000 0 0.000 Total 27 3.501 4 2.925 19 0.514										
Packing tape & straps 3 0.001 0 0.000 0 0.000	STIC	Fruit juice, 1 litre+		0.000	y	0	0.000			0.000
Packing tape & straps 3 0.001 0 0.000 0 0.000	ζ							у		
Plain water (carbonated or non-carb) <1 litre	_									
Plastic bottle tops		Plain water (carbonated or non-carb) <1 litre	1	0.788		1	0.788		0	0.000
Sacks - sheeting - other bags 0 0.000 0 0.000 0 0.000 Snack bags & confectionary wrappers 3 0.020 0 0.000 y 3 0.020 Spoons/ cutlery 2 0.014 0 0.000 y 2 0.014 Straws 8 0.033 0 0.000 y 8 0.033 Styrene foam boxes, sheets, etc 0 0.000 0 0.000 0 0.000 0 0.000 Take away & cups 2 0.414 0 0.000 y 2 0.414 White milk, all sizes 0 0.000 0 0.000 0 0.000 Wine cask bladders 0 0.000 0 0.000 0 0.000 Total 27 3.501 4 2.925 19 0.514					У			V		
Snack bags & confectionary wrappers 3 0.020 0 0.000 y 3 0.020 Spoons/ cuttery 2 0.014 0 0.000 y 2 0.014 Straws 8 0.033 0 0.000 y 8 0.033 Styrene foam boxes, sheets, etc 0 0.000 0 0.000 0 0.000 Take away & cups 2 0.414 0 0.000 y 2 0.414 White milk, all sizes 0 0.000 0 0.000 0 0.000 Wine cask bladders 0 0.000 0 0.000 0 0.000 Total 27 3.501 4 2.925 19 0.514		Sacks - sheeting - other bags	0	0.000		0	0.000	y	0	0.000
Straws 8 0.033 0 0.000 y 8 0.033 Styrene foam boxes, sheets, etc 0 0.000 0 0.000 0 0.000 Take away & cups 2 0.414 0 0.000 y 2 0.414 White milk, all sizes 0 0.000 0 0.000 0 0.000 0 0.000 Wine cask bladders 0 0.000 0 0.000 0 0.000 Total 27 3.501 4 2.925 19 0.514										
Styrene foam boxes, sheets, etc 0 0.000 0 0.000 0 0.000 Take away & cups 2 0.414 0 0.000 y 2 0.414 White milk, all sizes 0 0.000 0 0.000 0 0.000 0 0.000 Wine cask bladders 0 0.000 0 0.000 0 0.000 0 0.000 Total 27 3.501 4 2.925 19 0.514										
White milk, all sizes 0 0.000 0 0.000 0 0.000 Wine cask bladders 0 0.000 0 0.000 0 0.000 Total 27 3.501 4 2.925 19 0.514		Styrene foam boxes, sheets, etc	0	0.000		0	0.000		0	0.000
Wine cask bladders 0 0.000 0 0.000 0 0.000 Total 27 3.501 4 2.925 19 0.514								У		
		Wine cask bladders	0	0.000		0	0.000		0	0.000
		Total GRAND TOTAL	27 108	3.501 15.509		4 19	2.925 9.563		19 37	0.514 4.683