



Problematic Materials for Local Government **Background paper**

February 2016

Contents

Executive Summary	3
1 Introductions	5
2 Methodology	5
3 Results of the 2015 Survey	5
Respondents	5
Problematic Wastes	6
Problematic Wastes: metropolitan and non-metropolitan impacts	6
Rationale	7
Mechanisms for address problematic waste	12
Top 3 Priority Products for Product Stewardship	13
Scrap Metal	14
Mattresses	15
Final Comments	16
4 Applying the Criteria from the EPR Policy Statement	16
5 Prioritising materials for action	18
Tyres	18
Asbestos	19
Mattresses	19
E-waste	19
White goods	20
Beverage Containers	20
Household Hazardous Waste	20
Scrap Metal	21
6 Conclusion	23
Appendix A	25

Executive Summary

WALGA conducted a survey of Local Government in October 2015 to identify problematic waste materials, determine why they were problematic and identify areas where action was needed.

This survey follows on from research conducted in 2012. Some progress has been made, for some materials, others continue to be an issue for Local Government.

Table 1 summarises the outcomes of the current research.

Problematic product	Suitable for Product Stewardship	Focus of Product Stewardship Scheme	Is a scheme in place?	Actions
Tyres	Yes	Illegal dumping, disposal/ recycling options	Yes, voluntary scheme in place	Promote Tyre Stewardship Australia and encourage Local Governments to join.
Asbestos	No	N/A	No	Continue to advocate for other approaches to managing Asbestos. Including seeking funding to implement the National Strategic Plan for Asbestos Management and Awareness.
Mattresses	Maybe	Illegal dumping, cost of recycling/disposal and recycling options	No	Investigation the current market and product stewardship development for mattresses. Support new operators to enter the market.
Electronic Waste	Yes	Cost for recycling, disposal and illegal dumping issues	Yes, co-regulatory scheme in place	Monitor the TV and Computer Scheme implementation and provide input into the review. Continue to advocate for current concerns with the Scheme to government.
White Goods	Maybe	Cost for recycling, recycling options, and illegal dumping.	No	Continue to monitor market trends for recycling metal components of white goods and provide information to Local Government.

Beverage containers	Yes	Littering, recycling cost and environmental impact	In other states	Continue to advocate for a Cash for Containers Scheme in WA. Engage with Planet Ark/Greenchip regarding the recyclability labelling system.
Household Hazardous Waste	Yes	Environmental impact, costs and contamination of recyclables.	No – but voluntary approach to paint and batteries being worked on	Actively engage with the paint and batteries Product Stewardship schemes. Investigate ways to expand the reach of the Household Hazardous Waste Program.
Scrap metal	Maybe	Cost for recycling, recycling options and illegal dumping	No	Continue to monitor market trends for recycling scrap metal. Investigate market alternatives for recycling, advise Local Governments of options for long term planning and seek support for Local Governments to manage the current situation.

Table 1: Summary of recommendations

1 Introduction

This Report has been developed by MWAC to identify problematic materials that Local Government is managing, and identify what actions are needed to address the issues with those materials. To identify what materials the sector is finding problematic to manage, MWAC conducted a survey of Local Government in October 2015.

In 2012, MWAC undertook a similar survey to identify priority products for EPR. The top three problematic waste materials identified were tyres, electronic goods and asbestos. Also identified were other waste materials where Local Governments required assistance, but where EPR may not necessarily be the most appropriate approach.

The original survey was modified to reflect current concerns with additional waste materials, including scrap metal and used oil containers. The outcomes of the current research will be used to track progress relating to problematic materials and inform advocacy.

2 Methodology

In October 2015 MWAC undertook a survey of Local Government to determine problematic waste materials and mechanisms that could support Local Government to better address these materials. The survey was distributed to Local Government Officers working in waste management. Individual comments were also invited.

3 Results of the 2015 Survey

Where appropriate, feedback from the 2012 online survey results have been compared to the 2015 survey to show any changes in priority.

Respondents

91 participants from 76 WA Local Governments and Regional Councils completed the survey. 4 additional responses were provided via email or phone from 4 Local Governments. Including the additional response, the survey had a response rate of 80 out of 139 (57%) Local Governments.

Of the total 95 responses, 34 (35.7%) responses were received from metropolitan Local Governments and Regional Councils and 61 (64.2%) responses from non-metropolitan Local Governments and Regional Councils.

Note: multiple responses from same Local Governments have been included in overall statistics where appropriate.

	2012	2015
Total respondents (%)	47% of total Local Governments	57% of total Local Governments
Metropolitan	41.5%	35.7%
Non-metropolitan	58.5%	64.2%

Table 2: Number of survey respondents

Problematic Wastes

Survey respondents were asked to identify waste materials that are problematic to manage in their Local Government area from a list and they could also add in other materials. Table

3 shows the number of responses for each waste material, from most responses to least, compared to the 2012 survey.

Product	2012	2015
Tyres	82.80%	72.5%
Asbestos	65.10%	56%
Mattresses	54.70%	54.9%
Electronic wastes	65.60%	45%
White goods	40.60%	43.9%
Household Hazardous Waste	51.60%	42.8%
Scrap metal	-	39.6%
Beverage containers	60.90%	38.5%
Motor vehicle bodies	18.80%	29.7%
Household goods	26.60%	27.5%
Other materials	28.10%	24.2%
Used oil containers	-	20.9%
Used oil	35.90%	18.7%
Paper and cardboard	26.60%	17.6%
Batteries (car)	17.20%	15.4%

Table 3: Problematic waste in Local Government area

The top 5 products identified as problematic are:

1. Tyres (72.5% of respondents)
2. Asbestos (56%)
3. Mattresses (54.9%)
4. Electronic wastes (45%)
5. White goods (43.9%)

While e-waste was identified within the top 5 products, there were less responses than the 2012 survey. This may reflect the impact of the National Television and Computers Product Stewardship Scheme.

Beverage containers were in the top 5 most frequently identified waste materials in the 2012 survey (60.9% respondents) but not in the current research. This may be due to the significant advocacy undertaken in 2012 to bring beverage containers to the forefront.

Other problematic waste materials named by survey respondents include construction and demolition waste (including rubble, sand and timber), green waste, gas bottles, glass and mixed plastics.

Problematic Wastes: Metropolitan and Non-metropolitan impacts

The top 5 problematic materials identified in the survey (tyres, asbestos, mattresses, e-waste and white goods) may not be equally problematic for metropolitan and non-metropolitan Local Governments. To determine the top 5 problematic materials for each location, the number of responses to each material by metropolitan or non-metropolitan Local Governments was compared to the total number of metropolitan and non-metropolitan Local Governments that took part in the survey.

34 responses were received from metropolitan Local Government and 61 responses were received from non-metropolitan Local Governments. Table 4 shows a comparison of the

problematic materials in the metropolitan and non-metropolitan areas. The top 5 problematic materials identified by metropolitan Local Governments are:

1. Asbestos (23 responses or 67.6% of metropolitan Local Government respondents)
2. Tyres (67.6%)
3. Mattresses (65%)
4. White goods (56%)
5. Household Hazardous Waste (52%)

The top 5 problematic materials identified by non-metropolitan Local Governments are:

1. Tyres (43 responses or 70.5% of non-metropolitan Local Governments)
2. Asbestos (46%%)
3. Mattresses (46%)
4. Scrap metal (46%)
5. Electronic wastes (41%)

Due to the low number responses by metropolitan Local Governments identifying scrap metal as a problematic material, it is missing from the overall top 5 list. However, scrap metal was identified as a problematic material by a large number of non-metropolitan Local Governments and so needs to be prioritised.

Product	Metropolitan	Non-metropolitan
Tyres	23	43
Asbestos	33	28
Mattresses	22	28
Electronic wastes	16	25
White goods	19	21
Household Hazardous Waste	18	21
Scrap metal	8	28
Beverage containers	11	24
Motor vehicle bodies	5	22
Household goods	14	11
Other materials	8	14
Used oil containers	5	14
Used oil	7	10
Paper and cardboard	4	12
Batteries (car)	6	8

Table 4: Problematic waste by metropoltain and non-metropolitan Local Governments

Rationale

Survey respondents were asked to identify the issues associated with these waste products from a list of choices. Table 5 presents the range of potential issues and number of corresponding responses. The issue with the most responses is highlighted for each waste material.

To identify whether the issues associated with these waste products differ between metropolitan and non-metropolitan Local Governments, the range of potential issues and number of corresponding responses is highlighted for metropolitan and non-metropolitan Local Governments in Tables 6 and 7. Only the top 5 products identified by each metropolitan and non-metropolitan Local Governments have been included.

The issues associated with the 3 products present in both the top 5 products identified by each metropolitan and non-metropolitan Local Governments (tyres, asbestos and mattresses) are similar for the two areas. Illegal dumping of tyres present a slightly higher concern for metropolitan Local Governments, while cost to dispose of tyres was identified as a concern by more non-metropolitan Local Governments.

Table 8 shows the top three issues with each waste product, compared to the 2012 survey.

	Illegally dumped (bulky items)	Littered	Environmental impact	Costly to dispose	Costly to recycle	Contaminates other recyclable materials	There are no recycling options available
Tyres	41 (45.1%)	9 (9.9%)	26 (28.6%)	43 (47.3%)	27 (29.7%)	2 (2.2%)	15 (16.5%)
Asbestos	42 (46.2%)	11 (12.1%)	30 (32.9%)	37 (40.6%)	1 (1.1%)	13 (14.3%)	16 (17.6%)
Mattresses	36 (39.6%)	7 (7.7%)	10(11%)	27 (29.7%)	23 (25.3%)	1 (1.1%)	17 (18.7%)
Electronic waste	21 (23.1%)	4 (4.4%)	16 (17.6%)	19 (20.9%)	24 (26.4%)	4 (4.4%)	7 (7.7%)
White goods	24 (26.4%)	2 (2.2%)	11 (12.1%)	18 (19.8%)	17 (18.7%)	1 (1.1%)	11 (12.1%)
HHW	16 (17.6%)	3 (3.3%)	27 (29.7%)	22 (24.2%)	13 (14.3%)	9 (9.9%)	13 (14.3%)
Scrap metal	9 (9.9%)	1 (1.1%)	6 (6.6%)	18 (19.8%)	21 (23.1%)	0	9 (9.9%)
Beverage containers	3 (3.3%)	32 (35.2%)	8 (8.8%)	6 (6.6%)	8 (8.8%)	2 (2.2%)	5 (5.5%)
Motor vehicle bodies	15 (16.5%)	3 (3.3%)	10 (11%)	14 (15.4%)	10 (11%)	2 (2.2%)	5 (5.5%)
Household goods	26 (28.6%)	5 (5.5%)	5 (5.5%)	18 (19.8%)	5 (5.5%)	1 (1.1%)	6 (6.6%)
Used oil containers	7 (7.7%)	4 (4.4%)	13 (14.3%)	11 (12.1%)	10 (11%)	8 (8.8%)	6 (6.6%)
Used oil	9 (9.9%)	3 (3.3%)	13 (14.3%)	9 (9.9%)	8 (8.8%)	6 (6.6%)	3 (3.3%)
Paper and Cardboard	5 (5.5%)	11 (12.1%)	3 (3.3%)	3 (3.3%)	7 (7.7%)	1 (1.1%)	3 (3.3%)
Batteries (car)	11 (12.1%)	5 (5.5%)	8 (8.8%)	5 (5.5%)	5 (5.5%)	3 (3.3%)	3 (3.3%)

Table 5: Issues related to identified materials?

	Illegally dumped (bulky items)	Littered	Environmental impact	Costly to dispose	Costly to recycle	Contaminates other recyclable materials	There are no recycling options available
Asbestos	19 (56%)	4 (12%)	13 (38%)	16 (47%)	1 (3%)	6 (18%)	6 (18%)
Tyres	16 (47%)	1 (3%)	6 (18%)	13 (38%)	5 (15%)	0	2 (6%)
Mattresses	18 (53%)	2 (6%)	2 (6%)	13 (38%)	14 (41%)	0	2 (6%)
White goods	15 (44%)	0	3 (8%)	7 (21%)	6 (18%)	0	2 (6%)
HHW	8 (24%)	1 (3%)	11 (32%)	7 (21%)	5 (15%)	2 (6%)	3 (8%)

Table 6: Main issues identified by metropolitan Local Governments associated with the top 5 materials. (34)

	Illegally dumped (bulky items)	Littered	Environmental impact	Costly to dispose	Costly to recycle	Contaminates other recyclable materials	There are no recycling options available
Tyres	25 (41%)	8 (13%)	20 (33%)	30 (49%)	22 (36%)	2 (3%)	13 (21%)
Asbestos	23 (38%)	7 (11%)	17 (28%)	21 (34%)	0	7 (11%)	10 (16%)
Mattresses	18 (53%)	5 (8%)	8 (13%)	14 (23%)	9 (15%)	1 (2%)	15 (25%)
Scrap metal	4 (6%)	1 (2%)	5 (8%)	15 (25%)	17 (28%)	0	7 (11%)
Electronic waste	8 (13%)	3 (5%)	9 (15%)	10 (16%)	18 (53%)	3 (5%)	6 (10%)

Table 7: Main issues identified by non-metropolitan Local Governments associated with the top 5 materials. (61)

Product	2012		2015	
Tyres	Illegally dumped/ Costly to dispose	69.2%	Costly to dispose	47.3%
	Environmental impact	59.6%	Illegally dumped	45.1%
	Costly to recycle	48.1%	Costly to recycle	29.7%
Asbestos	Illegally dumped	88.6%	Illegally dumped	46.2%
	Costly to dispose	84.1%	Costly to dispose	40.6%
	Environmental impact	70.5%	Environmental impact	32.9%
Mattresses	Illegally dumped	72.5%	Illegally dumped	39.6%
	Costly to dispose	55%	Costly to dispose	29.7%
	Costly to recycle/ no recycling options	30%	Costly to recycle	25.3%
Electronic wastes	Costly to recycle	60%	Costly to recycle	26.4%
	Costly to dispose	48.9%	Illegally dumped	23.1%
	Illegally dumped	46.7%	Costly to dispose	20.9%
White goods	Illegally dumped	73.3%	Illegally dumped	26.4%
	Environmental impact/ Costly to dispose	43.3%	Costly to dispose	19.8%
	Costly to recycle/ no recycling options	23.3%	Costly to recycle	18.7%
HHW	Environmental impact	81.8%	Environmental impact	29.7%
	Costly to dispose	75.8%	Costly to dispose	24.2%
	Contaminate recyclables	42.4%	Illegally dumped	17.6%
Scrap Metal	-		Costly to recycle	23.1
	-		Costly to dispose	19.8%
	-		Illegally Dumped/ no recycling options	9.9%
Beverage containers	Littered	79.5%	Littered	35.2%
	Costly to recycle	36.4%	Environmental impact/ Costly to recycle	8.8%
	Environmental impact	27.3%	Costly to dispose	6.6%
Motor vehicle bodies	Illegally dumped	77.8%	Illegally dumped	16.5%
	Costly to dispose	44.4%	Costly to dispose	15.4%
	Environmental impact	38.9%	Environmental impact/ Costly to recycle	11%
Household goods	Illegally dumped	77.8%	Illegally dumped	28.6%
	Costly to dispose	40.7%	Costly to dispose	19.8%
	No recycling options	25.9%	No recycling options	6.6%
Used Oil Containers	-		Environmental impact	14.3%
	-		Costly to dispose	12.1%
	-		Costly to recycle	11%
Used Oil	Environmental impact	86.2%	Environmental impact	14.3%
	Costly to dispose	44.8%	Illegally dumped/ costly to dispose	9.9%
	Illegally dumped	41.4%	Costly to recycle	8.8%
Paper and cardboard	Littered	73.7%	Littered	12.1%
	Costly to recycle	36.8%	Costly to recycle	7.7%
	Costly to dispose	26.3%	Illegally dumped	5.5%
Batteries	Illegally dumped/ Environmental impact	58.8%	Illegally dumped	12.1%
	Costly to dispose	29.4%	Environmental impact	8.8%
	Contaminate recyclables	17.6%	Littered/ Costly to dispose/ Costly to recycle	5.5%

Table 8: Problematic wastes and top three issues

The most frequently mentioned reason for the materials being considered problematic was that they were illegally dumped/littered and they had a significant environmental impact. Green waste was also reported as problematic due to illegal dumping and that it was costly to recycle. Similarly, construction and demolition waste was frequently highlighted due to illegal dumping and then costly to recycle or dispose of. There are no recycling options for polystyrene and litter, environmental impacts and contamination of other recyclables were raised and ongoing issues for this material.

Mechanisms for addressing problematic waste

Survey respondents were asked to select potential mechanisms to address problematic wastes from a list of choices. Table 9 presents the range of mechanisms and the number of responses in support for each and Table 10 splits this data by metropolitan and non-metropolitan Local Governments.

Mechanism	2012	2015
Implementation of Product Stewardship schemes	73.8%	62.6%
Funding for transport costs of recycled materials	61.5%	61.5%
Funding for waste management infrastructure	66.2%	59.3%
Strategic planning for infrastructure at a State level	43.1%	51.6%
Other	13.8%	17.6%

Table 9: Mechanisms supported for addressing problematic wastes

Mechanism	Metropolitan	Non-metropolitan
Implementation of Product Stewardship schemes	43.90%	56.10%
Funding for transport costs of recycled materials	26.80%	73.20%
Funding for waste management infrastructure	38.90%	61.10%
Strategic planning for infrastructure at a State level	40.40%	59.60%
Other	43.70%	56.30%

Table 10: Mechanisms supported for addressing problematic wastes (metropolitan and non-metropolitan)

Responses to the 2012 survey showed a preference for implementation of Product Stewardship scheme over other mechanisms. In contrast, responses to the 2015 survey show only a slight preference for Product Stewardship schemes, with similar numbers of responses in favour of funding for transport costs of recycled materials and waste management

infrastructure. As shown in Table 10 this is likely to be due to the high number of responses from the non-metropolitan area.

As with the previous survey, strategic planning for infrastructure at a State level was not rated as highly.

Other mechanisms to address problematic wastes included the introduction of Container Deposit Legislation and funding for permanent household hazardous waste collected sites. Respondents also requested distribution of the Landfill Levy to fund the development of waste infrastructure and to reimburse Local Governments sending illegally dumped material to landfill.

Respondents highlighted that any new Product Stewardship scheme requires a long term commitment from Federal and State Governments. Additionally, there is a need for a mandatory commitment by industry for a number of Schemes to be viable. Respondents also identified the need for support by State and Federal government in the development of markets for recycled materials.

Top 3 Priority Products for Product Stewardship

Survey respondents were asked to identify their top three wastes to be prioritised for EPR. The three most common materials listed for numbers 1, 2 and 3 priority are presented in Table 11.

Number 1 Priority	
Tyres	16 responses (17.8%)
E-waste	9 responses (9.9%)
Beverage containers	8 responses (8.8%)
Number 2 Priority	
Tyres	10 responses (10.9%)
E-waste	8 responses (8.8%)
White goods	7 responses (7.7%)
Number 3 Priority	
Tyres/ mattresses	8 responses (8.8%)
Beverage containers	6 responses (6.6%)
Used oil and containers	5 responses (5.5%)

Table 11: Top 3 products identified for Product Stewardship Schemes

Tyres were identified as the top material for Product Stewardship. E-waste and beverage containers were also prominently supported, as well as mattresses, used oil and used oil containers.

Scrap Metal

The price of scrap metal has steadily declined and feedback from Local Governments indicates recycling of this material now comes at a cost. Survey respondents were asked how they were managing this issue. Table 12 presents identifies methods used by Local Government to manage scrap metal disposal and Table 13 splits this data by metropolitan and non-metropolitan Local Governments.

Method of managing scrap metal	Number of responses
Pay for scrap metal to be recycled	18.7%
Stockpile scrap metal	41.8%
Landfill scrap metal	7.7%
Other	28.6%

Table 12: Local Government method of managing scrap metal

Method of managing scrap metal	metropolitan	non-metropolitan
Pay for scrap metal to be recycled	58.80%	41.20%
Stockpile scrap metal	13.20%	86.80%
Landfill scrap metal	57.10%	42.90%
Other	46.20%	53.80%

Table 13: Local Government method of managing scrap metal (metropolitan and non-metropolitan)

Other comments provided reflect that Local Governments are currently receiving minimal or no return for recycling scrap metal.

38 (41.8%) survey respondents indicated they are currently stockpiling scrap metal. Of these 38 respondents, 33 (86.8%) were from non-metropolitan Local Governments or Regional Councils. Given that the price of scrap metal may not increase for a long time period, stockpiling is not a good solution. Local Governments need options to recycle the quantities of scrap metal they have collected.

There are a range of issues with stockpiling metal. Scrap metal, with its mix of car bodies, electronic waste, plastics and sheet metals, poses a high fire risk. Sheet metal is particularly dangerous since it can be lifted and blown away by wind.

Some respondents provided information on how long they can stockpile scrap metal. 17 respondents (18.7%) indicated that can stockpile up to a year while 11 respondents (12.1%) can stockpile for more than a year. Survey respondents were asked to provide the tonnage of scrap metal they currently have on site. This information is presented in Table 14.

Scrap metal stockpiled (tonnes)	Number of responses
Less than 50	10
50 – 100	4
100 – 200	6
200 – 400	2
400 – 999	1
1000– 9,999	3
10 000+	2

Table 14: Amount of scrap metal on site (tonnes)

The majority of respondents have 200 tonnes or less of scrap metal currently stockpiled. Half of these have 50 tonnes or less. Some responses may reflect respondents' *capacity* to stockpile rather than current tonnes.

Mattresses

Mattresses have been identified as another problematic material for many Local Governments. Survey respondents were asked to indicate how they were managing this issue. Table 15 presents the range of methods used by Local Government to manage mattress disposal and Table 16 splits this by metropolitan and non-metropolitan Local Government responses.

Method of managing scrap metal	Number of responses
Landfill with general waste	57.1%
Shredded then landfilled	3.3%
Recycled	25.3%
Other	13.2%

Table 15: Local Government method of managing mattresses

Method of managing scrap metal	Metropolitan	Non-metropolitan
Landfill with general waste	9.60%	90.10%
Shredded then landfilled	66.70%	33.30%
Recycled	87%	13%
Other	50%	50%

Table 16: Local Government method of managing mattresses (metropolitan and non-metropolitan)

57.1% survey respondents are currently disposing of mattresses to landfill without shredding. Of these, 90% respondents were from non-metropolitan Local Governments or Regional Councils, with the remaining 10% from the metropolitan.

Some Local Governments commented that they had plans to shred mattresses rather than dispose of them whole to landfill.

Local Governments that collect mattresses for recycling were asked to approximate how many mattresses were being collected annually. Survey respondents could specify number of mattresses or tonnes collected as shown in Table 17.

Mattresses collected per annum (tonnes)	Responses
Up to 10 tonne	1
10 – 50 tonne	-
50 – 100 tonne	2
100 – 500 tonne	3
500 + tonne	1
Mattresses collected per annum	responses
Less than 50	1
50 – 100	2
100 – 500	2
500 – 1000	2
1000 – 5000	7
5000+	2

Table 17: Number of (or tonnage) mattresses collected annually

Final comments

Respondents were provided with the opportunity to include additional comments. The responses are shown in Appendix A and a short summary of key concerns is below.

- Household Hazardous Waste: Local Governments expressed that funding for infrastructure and drop-off days was needed. Non-metropolitan Local Governments do not have local infrastructure and have to redirect their communities to permanent sites some distances away.
- Transport concerns: Non-metropolitan Local Governments have significant concerns relating to diverting items from landfill when the alternative is to transport them significant distances to metropolitan sites. Due to the time and expense required, recycling problematic materials, such as mattresses and e-waste are prohibitive.
- Asbestos: illegal dumping of asbestos was raised as a significant concern. This poses significant environmental and health risks and the costs to clean up and dispose asbestos to landfill is high.
- Illegal dumping: Many Local Governments raised concerns regarding significant amounts of illegal dumping and the associated costs and environmental impacts this causes. Local Governments need effective ways to reduce illegal dumping and be reimbursed for the costs of sending illegally dumped wastes to landfill.

4 Applying the Criteria from the EPR Policy Statement

In order to assess whether the problematic materials identified by Local Government would be appropriate for an EPR scheme, the criteria in the WALGA EPR Policy Statement were applied to the products. This criteria are:

1. Does the waste or product cause significant environmental or social impacts?
2. Does the waste or product cause significant costs for waste processors?
3. Does the waste or product have unrealised potential for recycling / resource recovery?
4. Is the waste or product likely to be disposed of illegally?
5. Does the waste or product cause significant community concern?
6. Is the producer well placed to reduce the impacts of their products?

Table 18 presents the results of this assessment.

Material	Enviro/ Social impact	Costs	Potential recycling	Illegal disposal	Community Concern	Producer available
Tyres	Yes	Yes for recycling and disposal	Yes	Yes	Yes	Yes
Asbestos	Yes	Yes	No	Yes	Yes	No
Mattresses	Yes	Yes for recycling and disposal	Yes	Yes	Yes	Yes
Electronic wastes	Yes	Yes for recycling and disposal	Yes	Yes	Yes	Yes
White goods	Yes	Yes for recycling and disposal	Yes	Yes	Some	Some
Household Hazardous Waste	Yes	Yes for recycling and disposal	Yes	Yes	Yes	Yes
Scrap metal	Yes	Yes for recycling	Yes	Yes	Yes	Yes
Beverage containers	Yes	Yes for recycling	Yes	Yes	Yes	Yes
Motor vehicle bodies	Yes	Yes for recycling and disposal	Yes	Yes	Yes	No
Household goods	Yes	Yes for recycling and disposal	No	Yes	Some	Yes
Used oil containers	Yes	Yes	No	Yes	Yes	Yes

Table 18: Use of EPR Policy Statement Criteria.

5 Prioritising materials for action

To prioritise products for action, the top 5 products identified as problematic by each metropolitan and non-metropolitan Local Governments have been highlighted. These are:

- | | |
|----------------------------------------------------------------|-------------------------------------------------------------------|
| 1. Asbestos (97% of metropolitan Local Government respondents) | 1. Tyres (70.5% of non-metropolitan Local Government respondents) |
| 2. Tyres (67.6%) | 2. Asbestos (46%) |
| 3. Mattresses (65%) | 3. Mattresses (46%) |
| 4. White goods (56%) | 4. Scrap metal (46%) |
| 5. Household Hazardous Waste (52%) | 5. Electronic wastes (41%) |

In relation to the priority for materials to be addressed through EPR, tyres and e-waste were identified most frequently, followed by beverage containers, white goods and mattresses (as shown in Table 11 above). Previously when this survey was done, in 2012, beverage containers and e-waste were identified by respondents as the priority for EPR.

Among the problematic products identified, an assessment has been undertaken to determine whether an EPR Scheme would be the appropriate approach, what the focus of a Scheme should be, whether a Scheme is already in place and what the recommendation for action is. Beverage containers are also included since these materials were also frequently identified as suitable for EPR. This is summarised in Table 19.

Looking at prioritising products for EPR schemes, other considerations include whether a Product Stewardship Scheme is currently in place and the efficacy of that scheme.

Tyres

A voluntary product stewardship scheme has been introduced, however it is yet to be seen if the Scheme will resolve the issues of importance for Local Government. Local Governments identified the issues with tyres as:

- Illegal dumping
- Costly to dispose
- Costly to recycle (including transporting to metropolitan areas to recycling)
- No recycling options

The voluntary scheme does not include any direct intervention in relation to illegal dumping or putting in place cost effective recycling/disposal options. MWAC has endorsed the motion to join Tyre Stewardship Australia and encourage Local Governments to also join. MWAC will actively engage with WALGA Preferred Suppliers to ensure they are members of TSA.

Actions: Promote Tyre Stewardship Australia and encourage Local Governments to join.

Asbestos

Of these problematic products, Asbestos is the least suitable material for a product stewardship scheme given that there is limited recycling potential and as the material is not being currently sold, revenue to fund a scheme is not present. For this material it is suggested that other approaches be utilised. Local Government identified the issues with asbestos as:

- Illegal dumping
- Costly to dispose

Action: Continue to advocate for other approaches to managing Asbestos. Including seeking funding to implement the National Strategic Plan for Asbestos Management and Awareness.

Mattresses

Mattresses do not represent a large environmental impact, however there are the potential social impacts of illegal dumping and they are costly materials to recycle/dispose of. Further investigation of this product is necessary to determine options. Local Government identified the issues with mattresses as:

- Costly to recycle, including transporting to metropolitan areas
- Difficult to dispose of when Local Governments cannot access shredders
- Illegal dumping

Action: Investigation the current market and product stewardship development for mattresses. Support new operators to enter the market.

E-waste

Through the Televisions and Computer Product Stewardship Scheme a large proportion of e-waste has been recycled. The Federal Government recently reviewed the Scheme and increased the targets and identified the need for better communication between the Co-Regulatory Arrangements, State and Local Government. The WALGA submission on the review of the Scheme is available via the [WasteNet website](#). Local Governments identified with issues with e-waste as:

- Costly to recycle and lack of recycling options, including no local receive points
- Illegal dumping
- Environmental impacts

Action: Monitor the TV and Computer Scheme implementation and provide input into the review. Continue to advocate for current concerns with the Scheme to government.

White goods

MWAC has not been particularly active on white goods except following metal recycling price projections. Local Government identified issues with white goods as:

- bulky to dispose of
- limited recycling options available
- Environmental concerns arising from disposed of white goods that have not been correctly de-gassed.

Recycling of white goods and scrap metal is currently affected Australia wide by global markets and long-term trends in these markets are projected to continue to decline. Due to limited capacity to influence these markets, MWAC can continue to monitor this issue and provide updates to Local Government while focusing on other problematic waste materials.

Action: Continue to monitor market trends for recycling metal components of white goods and provide information to Local Government.

Beverage Containers

Due to concerns relating to the effectiveness of the Australian Packaging Covenant, MWAC resigned from the Covenant in 2015. Since the previous research, Container Deposit Schemes have continued in South Australia and implemented Northern Territory. There are current plans for Schemes in New South Wales and Queensland.

MWAC recently noted the development of a recyclability labelling system by Planet Ark. MWAC has endorsed plans to engage with Planet Ark to ensure the system is appropriate for WA and promote the use of a consistent label to identify packaging recyclability.

Local Government identified issues with beverage containers as:

- Littering
- Lack of recycling options

Action: Continue to advocate for a Cash for Containers Scheme in WA. Engage with Planet Ark/Greenchip regarding the recyclability labelling system.

Household Hazardous Waste

This is by far the most difficult selection of materials to address. Local Government identified issues with HHW as:

- Lack of disposal and recycling options, including access to infrastructure and funding for collection
- Significant environmental impact
- Illegal dumping

The priorities for EPR focus on environment impact, costs and contamination. The highest volume material collected, paint, has limited environmental impact but a high cost for disposal. Lower volume products, like pesticides, are more environmentally damaging – however not as costly to dispose of. Some products, such as Schedule X pesticides, are no longer manufactured to establishing producer responsibility may be difficult.

An overall scheme for HHW may be difficult given the diverse range of materials covered, so an approach which selects the highest cost, most hazardous material has been chosen. A voluntary Product Stewardship Schemes are currently being developed for batteries. This scheme will over cover rechargeable and hazardous batteries. A voluntary Scheme is also currently being developed for paint

Action: Actively engage with the paint and batteries Product Stewardship schemes. Investigate ways to expand the reach of the Household Hazardous Waste Program.

Scrap Metal

The price of scrap metal has steadily declined and feedback from Local Governments indicates this means that recycling this material now comes at a cost. MWAC has not been particularly active on scrap metal except following recycling price projections. Recycling of scrap metal is currently affected Australia wide by global markets and long-term trends in these markets are projected to continue to decline. Due to limited capacity to influence these markets, MWAC can continue to monitor this issue and provide updates to Local Government while focusing on other problematic waste materials. Local Government identified issues with scrap metal as:

- Costs to recycle

There is some concern regarding Local Governments stockpiling scrap metal in preparation for market recovery. To respond to this, MWAC can investigate market alternatives for recycling scrap metal and advise Local Government of options for long-term planning.

Action: Continue to monitor market trends for recycling scrap metal. Investigate market alternatives for recycling, advise Local Governments of options for long term planning and seek support for Local Governments to manage the current situation.

Problematic product	Suitable for Product Stewardship	Focus of Product Stewardship Scheme	Is a scheme in place?	Actions
Tyres	Yes	Illegal dumping, disposal/ recycling options	Yes, voluntary scheme in place	Promote Tyre Stewardship Australia and encourage Local Governments to join.
Asbestos	No	N/A	No	Continue to advocate for other approaches to managing Asbestos. Including seeking funding to implement the National Strategic Plan for Asbestos Management and Awareness.
Mattresses	Maybe	Illegal dumping, cost of recycling/disposal and recycling options	No	Investigation the current market and product stewardship development for mattresses. Support new operators to enter the market.
Electronic Waste	Yes	Cost for recycling, disposal and illegal dumping issues	Yes, co-regulatory scheme in place	Monitor the TV and Computer Scheme implementation and provide input into the review. Continue to advocate for current concerns with the Scheme to government.
White Goods	Maybe	Cost for recycling, recycling options, and illegal dumping.	No	Continue to monitor market trends for recycling metal components of white goods and provide information to Local Government.
Beverage containers	Yes	Littering, recycling cost and environmental impact	In other states	Continue to advocate for a Cash for Containers Scheme in WA. Engage with Planet

				Ark/Greenchip regarding the recyclability labelling system.
Household Hazardous Waste	Yes	Environmental impact, costs and contamination of recyclables.	No – but voluntary approach to paint and batteries being worked on	Actively engage with the paint and batteries Product Stewardship schemes. Investigate ways to expand the reach of the Household Hazardous Waste Program.
Scrap metal	Maybe	Cost for recycling, recycling options and illegal dumping	No	Continue to monitor market trends for recycling scrap metal. Investigate market alternatives for recycling, advise Local Governments of options for long term planning and seek support for Local Governments to manage the current situation.

Table 19: Summary of recommendations

6 Conclusion

This survey received a significant response rate and Local Government provided detailed information on current concerns. Local Government identified a variety of problematic materials and issues associated with them. As identified by the sector, the top problematic materials to be prioritised for action by MWAC are:

1. Tyres
2. Asbestos
3. Mattresses
4. Electronic waste
5. White goods
6. Household Hazardous waste
7. Scrap metal
8. Beverage containers.

The issues associated with these materials vary but predominantly illegal dumping and environmental concerns were raised by Local Governments as significant issues. Large items, including tyres, mattresses and white goods seem more likely to be illegally dumped. Illegal dumping was also highlighted as the biggest issue associated with asbestos. Local Governments need resources to combat illegal dumping, including ways to engage their communities to discourage the behaviour and simplify disposal. Local Governments also need resources to respond to illegal dumping, including hotspot monitoring and issuing infringements.

Fluctuations in the cost of recycling materials is likely to have an impact on Local Government concerns, especially for scrap metal and electronic waste. Local Governments identified these materials as costly to recycle and that reflects current market trends.

It is not surprising that non-metropolitan Local Governments also highlighted these materials as costly to dispose of. Transporting materials over large distances remains a significant issue for non-metropolitan Local Governments

Local Government identified a variety of potential mechanisms to respond to problematic materials. Metropolitan Local Governments showed a preference for implementation of Product Stewardship Schemes. This mechanism was the least popular option for non-metropolitan Local Governments, who have struggled to access infrastructure and drop off points to take advantage of current schemes.

Since the previous survey conducted in 2012, MWAC has had considerable involvement in reviewing and monitoring Product Stewardship Schemes, such as the National Television and Computer Scheme. MWAC has identified limitations in current schemes and will continue to engage with State and Federal Governments to improve their processes. While schemes may be appropriate for some of the problematic materials identified for priority, such as tyres, mattresses and specific HHW, other options to respond to problematic materials should also be considered. Non-metropolitan Local Governments identified funding for both transport costs of recycled materials and waste management infrastructure as alternatives to EPR.

Appendix A

Comments
More money needs to be spent on recycling infrastructure and facilities to accommodate the recyclables in this state to reduce costs on local government. More Hazardous Waste days for the community to drop off their items. These were very successful when they were run regularly and placed into our waste guide every year.
[The City is] constantly asked for drop-off days for Household Hazardous Goods (HHW). Permanent sites too far to travel for some residents and too expensive for the City to fully fund.
Funding for HHW infrastructure at non metro landfills
Residents ring us needing to dispose of garden chemicals, acids, etc. and we have no solution for them, other than tell them to take it to Bunbury, over 50km away. Not a good solution.
Although recycling programs are offered for some problematic waste, e.g. mattresses, the cost to divert them from landfill to the facilities located in Metro area capable of handling higher volumes, becomes prohibitive for the City.
Everything is so much more difficult and expensive in the country
E-Waste is our most significant issue due to there being no receivable points in our area.
Recycling for a small Local Authority is costly due prices and the tyranny of distance to markets. Metal has dropped significantly in price adding to another issue.
Transport costs are the biggest killer of recycling efforts in non-metro areas, we do not have a shredder for tyres and mattresses
Asbestos is the most commonly illegally dumped waste in the Shire
Contractors dumping quantities of asbestos sheeting and green waste to avoid disposal fees is escalating. Significant clean-up cost particularly for asbestos to the local government which is further compounded by the landfill tax which adds \$55.00 per tonne (2015/16 FY) to disposal cost and escalates to \$70.00 per tonne in 2018/18 FY.
Green Waste. There's only so much mulch a small community can use. We must burn a significant volume but the prescriptive requirements of the Rural Landfill Regulations are nonsensical make it very difficult/almost impossible to manage a compliant burn. They require a burn to occur between the hours of 8am to 12 noon and fully extinguished by 12 noon. We often have strong winds in the mornings and light to no wind in the afternoon.
Illegally dumped building waste is now a major problem costing the city \$\$\$ to dispose of
Illegal dumping is the major problem and ideas to reduce/eliminate this problem would be great.