

# Household Hazardous Waste Program 4 Year Summary Public Report

2011/12 – 2014/15



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## Executive Summary

Over the 4 years of the Household Hazardous Waste Program (2011/12 – 2014/15) \$7,544,945\* was expended and a total of 2,196,385kg of HHW was collected from Permanent facilities and temporary collection days. The total expenditure over the 4 years of the Program were distributed as follows:

- 78.47% was for testing, collection and disposal of HHW from Permanent Facilities (68.77% Metro and 9.70% Non-metro)
- 9.36% was for costs associated with running and promoting temporary collection days
- 6.56% was for WALGA administration
- 5.06% was for HHW Permanent facility infrastructure development
- 0.28% was for Permanent facility staff training
- 0.27% was for HHW Program promotion.

Paint (water and solvent based) was the largest amount of material collected over the 4 years of the Program at 1,383,246kg, which is 63% of the total weight of materials collected. The cost of paint disposal was \$2,336,544, which is 31% of the *entire* Program expenditure over 4 years.

Through a detailed data review process, it was discovered that the figures originally reported in the 2011/12 to 2014/15 Annual Reports were not correct due to a number of factors. This Report provides the most accurate figures possible for each financial year from 2011/12 to 2014/15 and the figures in this Report replace any of the previously reported figures.

\*All figures in the Report exclude GST and there may be some minor discrepancies between figures due to numbers in the Report being rounded.

## Recommendations

### Recommendation 1:

This Report provides an overview of the activities and budget of the Household Hazardous Waste Program for the 2011/12 -2014/15 financial year, for consideration by the Waste Authority.

It is recommended that the Waste Authority note the achievements of the Household Hazardous Waste Program over this time.

# 1. HHW Collections and Expenditure

## 1.1 Overall Budget Expenditure and Total HHW Collected – 2011/12 to 2014/15

Over the 4 years of the Household Hazardous Waste Program, \$7,544,945 was expended and a total of 2,196,385kg of HHW was collected (2,037,993kg from the 13 Permanent facilities and 158,392kg from the 17 temporary collection days (TCDs)). Table 1 shows a breakdown of the expenditure by financial year.

ACTIVITY	2011/12 excl. GST	2012/13 excl. GST	2013/14 excl. GST	2014/15 excl. GST	Total
Metro Permanent HHW Facilities (HHW testing, collection and disposal incl. batteries)	\$886,447	\$1,039,765	\$1,635,577	\$1,627,024	\$5,188,813
Metro and Non-Metro Permanent HHW Facility Infrastructure Development	\$0	\$85,931	\$121,945	\$173,733	\$381,609
Non-metro HHW Facilities (HHW testing, collection and disposal)	\$114,350	\$179,939	\$187,037	\$250,368	\$731,695*
Permanent Facility Staff Training (metro and non-metro)	\$6,771	\$3,289	\$8,659	\$2,495	\$21,214
Temporary Collection Days - fully funded by the HHW Program	\$0	\$332,868	\$306,756	\$5,691	\$645,315
Temporary Collection Days - co-funded by the HHW Program and Regional Councils/Local Governments	\$0	\$5,655	\$55,252	\$0	\$60,907
HHW Program Promotion	\$672	\$19,021	\$0	\$700	\$20,393
WALGA Administration	\$115,000	\$120,000	\$125,000	\$135,000	\$495,000
<b>TOTAL (Excl. GST)</b>	<b>\$1,123,240</b>	<b>\$1,786,468</b>	<b>\$2,440,225*</b>	<b>\$2,195,012*</b>	<b>\$7,544,945*</b>

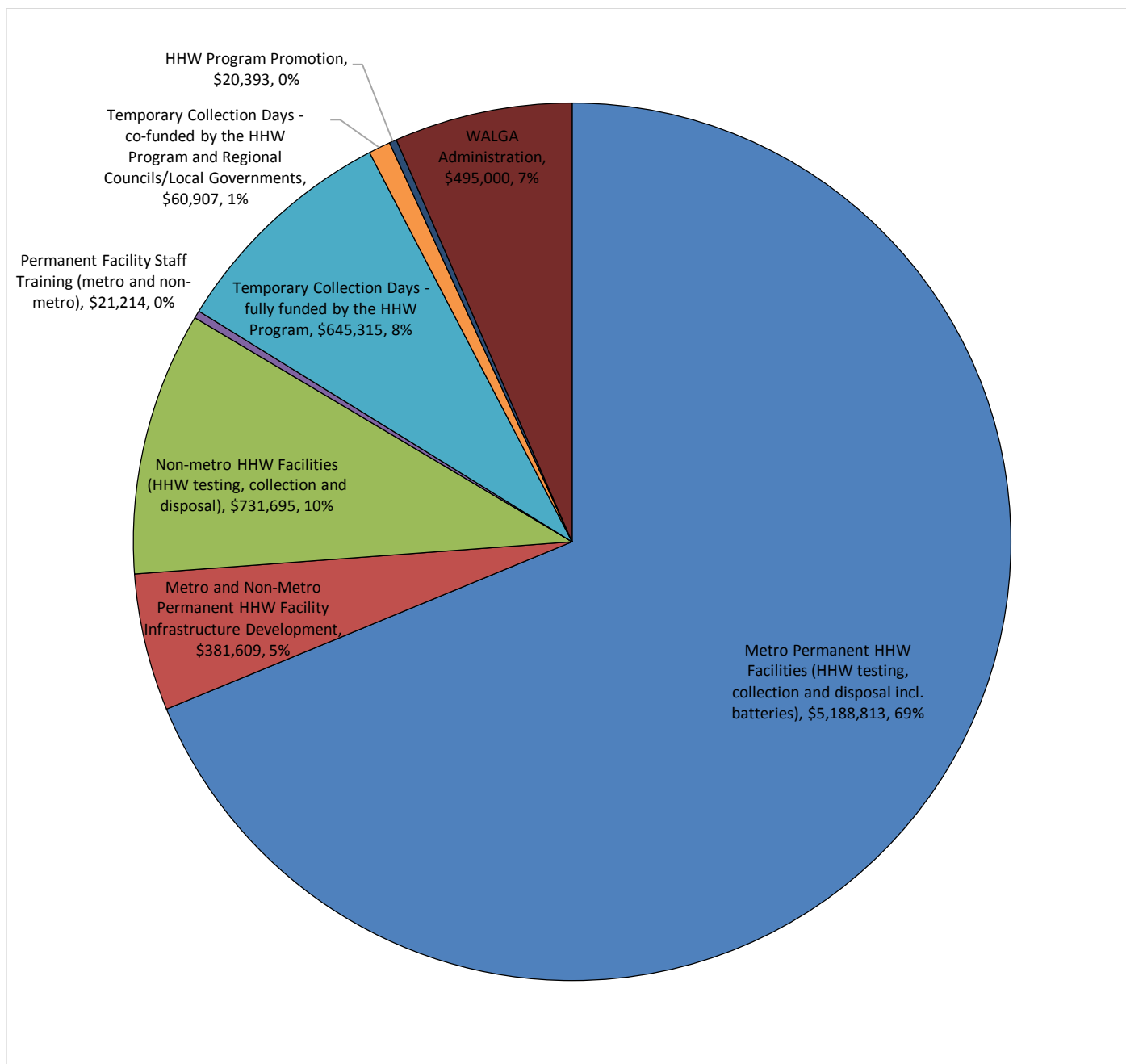
**Table 1:** Expenditure of each financial year from 2011/12 to 2014/15.

The total expenditure, over the 4 years of the Program, were distributed as follows:

- 78.47% (\$5,920,508) was for testing, collection, treatment and disposal of HHW from Permanent Facilities (68.77% Metro and 9.70% Non-metro)
  - Collection, packaging and transport costs for HHW were \$1,462,381
  - Disposal of HHW costs were \$4,231,278
  - Testing of unknown chemicals by ChemCentre was \$226,849
- 9.36% (\$706,222) was for costs associated with running and promoting the 17 TCDs (14 fully funded by the Program and 3 co-funded by the Local Governments hosting them)
- 6.56% (\$495,000) was for WALGA administration
- 5.06% (\$381,609) was for HHW Permanent facility infrastructure development
- 0.28% (\$21,214) was for Permanent facility staff training
- 0.27% (\$20,393) was for HHW Program promotion.

\* These totals have minor discrepancies due to the rounding of figures.

Figure 1 shows the breakdown of expenditure by activity over the 4 years of the Program.



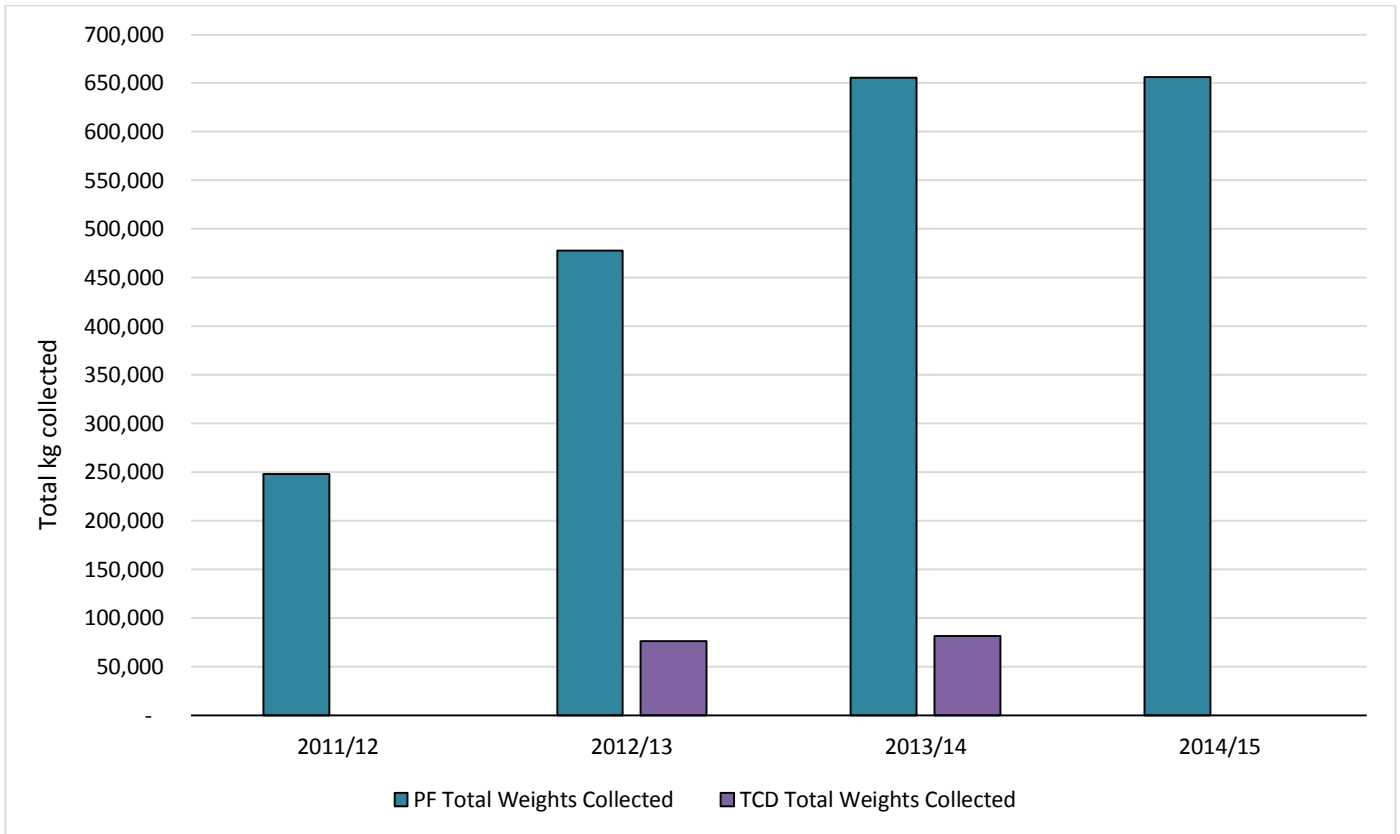
**Figure 1:** Breakdown of overall expenditure by activity from 2011/12 – 2014/15.

Paint (water and solvent based) was the largest amount of material collected over the 4 years of the Program at 1,383,246kg, which is 63% of the total weight of materials collected. The cost of paint disposal was \$2,336,544, which is 31% of the *entire* Program expenditure over 4 years.

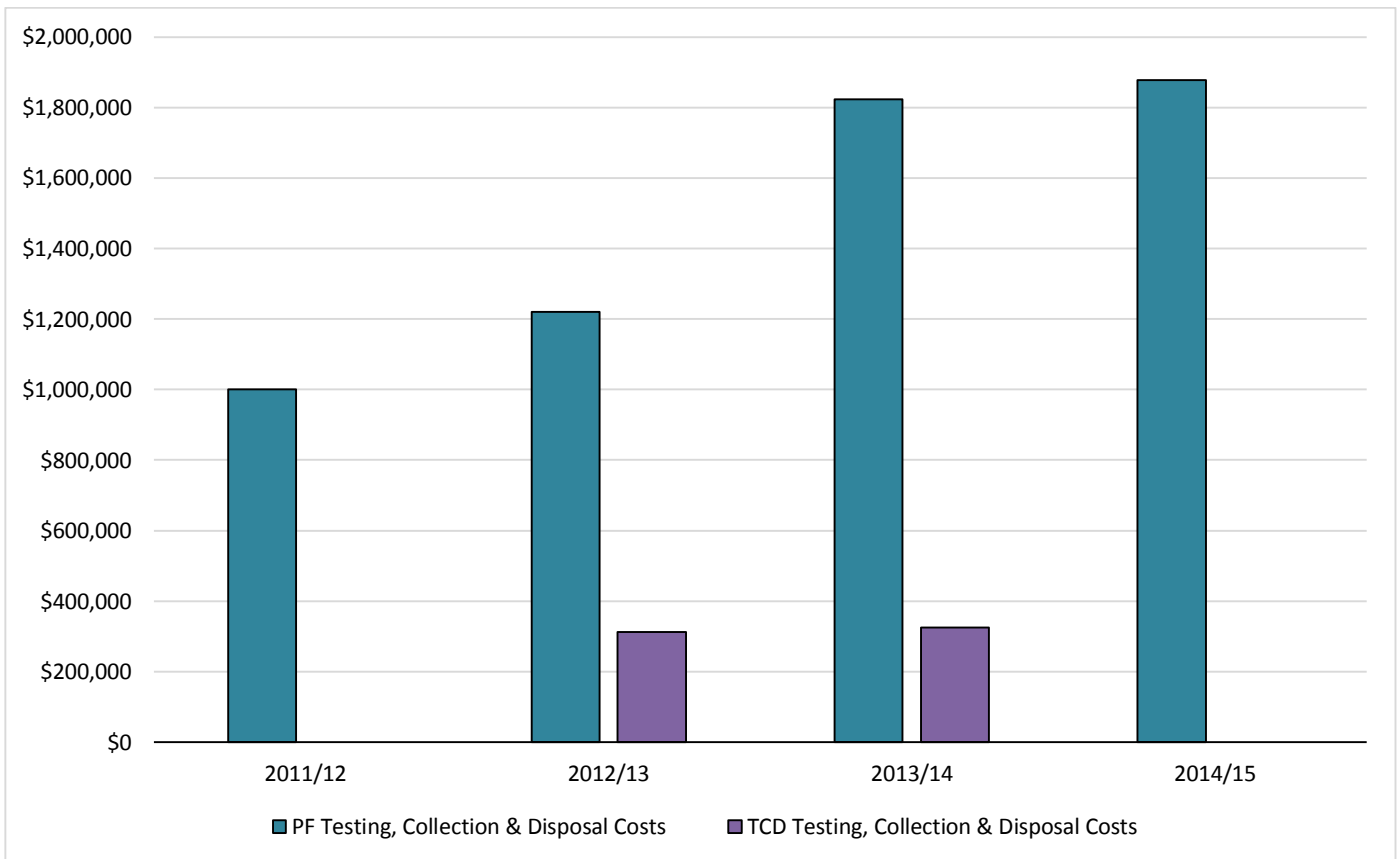
Table 2 shows a breakdown of the amount of HHW collected and the associated disposal costs from each Permanent facility over the 4 years of the Program. Figure 2 shows a comparison of collection totals across the 4 financial years (for Permanent facilities and TCDs), Figure 3 compares total expenditure for testing, collection and disposal activities across each of the 4 financial years for Permanent facilities and TCDs and Figure 4 compares the total weight of materials collected each financial year (from Permanent facilities and TCDs) against the total Program expenditure for all activities for each financial year, from 2011/12 to 2014/15.

Facility	Tonnage (kg)	Costs of disposal (\$)
Albany Waste Minimisation Facility	24,546	\$48,918.05
Armadale Landfill and Recycling Facility	202,065	\$370,813.35
Balcatta Recycling Centre	593,253	\$1,156,690.63
Canning Waste Transfer Station	4,000	\$6,573.15
Henderson Waste Recovery Park	266,564	\$550,585.14
JFR McGeough Resource Recovery centre	28,950	\$85,295.45
Mandurah Waste Management Centre	36,750	\$56,802.96
Meru Waste Disposal Facility - Geraldton	14,105	\$40,720.05
Red Hill Waste Management Facility	160,892	\$452,938.61
Rockingham – Miller Rd Landfill Facility	62,196	\$127,104.48
Stanley Road Waste Management Facility	134,458	\$264,181.07
Tamala Park Waste Disposal Facility	497,918	\$1,021,939.62
Toodyay – Railway Road Transfer Station	12,296	\$25,023.65
<b>Total</b>	<b>2,037,993</b>	<b>\$4,207,586.21</b>

**Table 2:** Total collection amounts and disposal costs from each Permanent facility from 2011/12 - 2014/15.

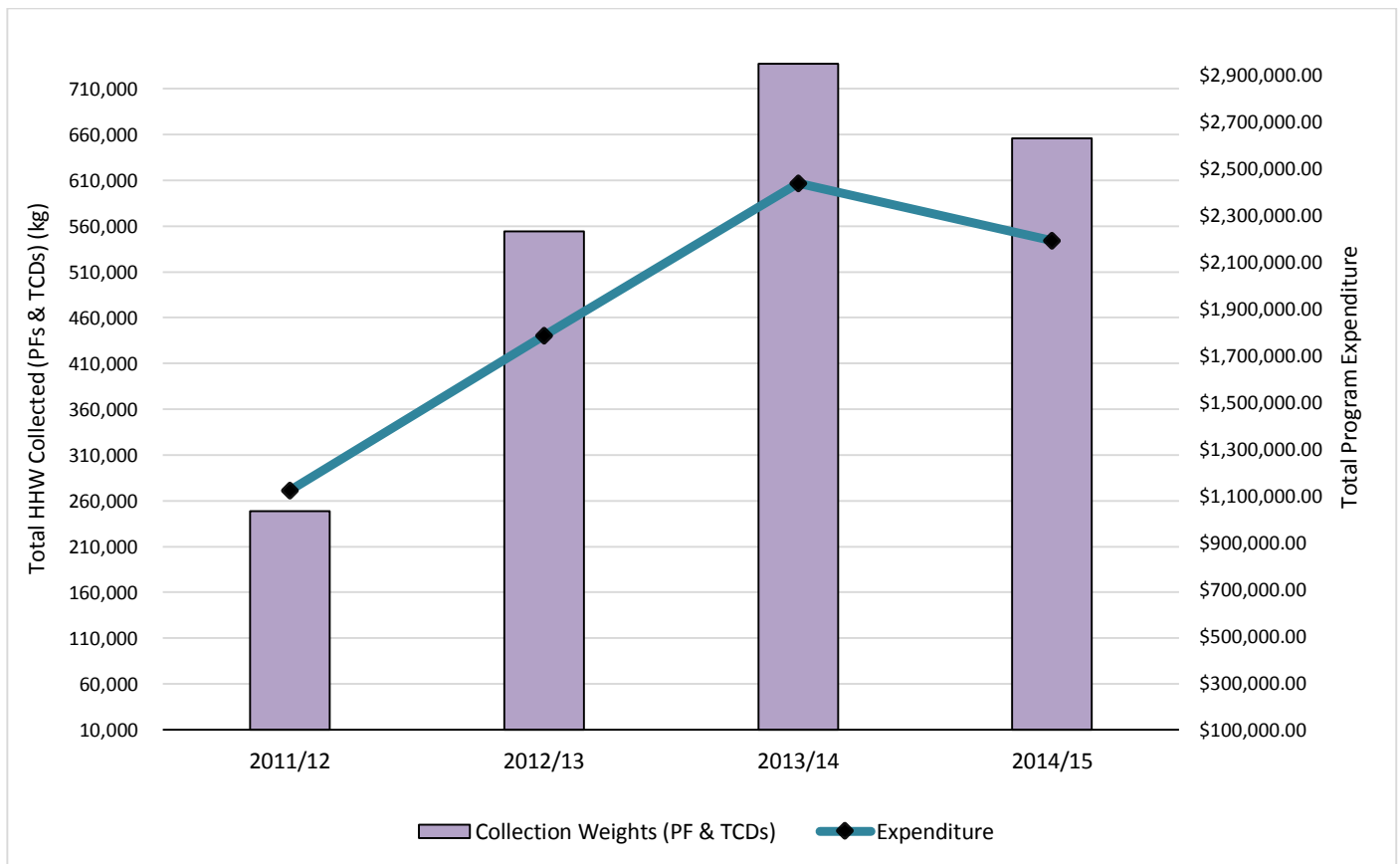


**Figure 2:** Comparison of amount of HHW collected (in kg) each financial year from 2011/12 – 2014/15 at Permanent facilities and TCDs.



**Figure 3:** Comparison of expenditure for testing, collection and disposal activities from Permanent facilities and TCDs from 2011/12 to 2014/15.





**Figure 4:** Comparison of the total materials collected (by weight) at Permanent facilities and TCDs, with the total Program expenditure (for all activities) each financial year (2011/12 to 2014/15).

## 1.2 2011/12 Financial Year Summary

The total expenditure from the 2011/12 financial year was \$1,123,240 and the total HHW collected was 248,408kg. All HHW collected was from Permanent facilities only, as no TCDs were held in this financial year. The expenditure from the 2011/12 financial year was distributed as follows:

- 89.1% (\$1,000,797) of Program costs were for the collection, transport, testing and disposal of material from HHW Permanent facilities (78.9% Metro and 10.2% Non-Metro)
  - Collection, packaging and transport costs for HHW were \$285,661
  - Disposal of HHW costs were \$681,389
  - Testing of unknown chemicals by ChemCentre was \$33,747
- 10.2% (\$115,000) was for WALGA administration
- 0.6% (\$6,771) Permanent facility staff training
- 0.1% (\$672) was for Program promotion.

Table 3 shows the overall expenditure breakdown by activity for the 2011/12 financial year.

ACTIVITY	2011/12 excl. GST
Metro Permanent HHW Facilities (HHW testing, collection and disposal incl. batteries)	\$886,447
Metro and Non-Metro Permanent HHW Facility Infrastructure Development	\$0
Non-metro HHW Facilities (HHW testing, collection and disposal)	\$114,350
Permanent Facility Staff Training (metro and non-metro)	\$6,771
Temporary Collection Days - fully funded by the HHW Program	\$0
Temporary Collection Days - co-funded by the HHW Program and Regional Councils/Local Governments	\$0
HHW Program Promotion	\$672
WALGA Administration	\$115,000
<b>TOTAL (Excl. GST)</b>	<b>\$1,123,240</b>

**Table 3.** Expenditure breakdown of 2011/12 financial year.

The total cost for testing, collection, treatment and disposal of HHW for Permanent facilities in the 2011/12 financial year was \$1,000,797 which represents a cost of \$4.03/kg (\$4,029/tonne) to the Program. If Local Government/ Regional Council 2011/12 contributions to the Program are added to this cost (\$332,050\*), the cost of collections from Permanent facilities is \$5.37/kg (\$5,366/tonne).

\* Please note this figure does not include contribution data from five of the Permanent facilities.

### 1.3 2012/13 Financial Year Summary

The total expenditure from the 2012/13 financial year was \$1,786,468 and the total weight of HHW collected was 554,435kg (477,947kg from Permanent facilities and 76,488kg from TCDs). The expenditure from the 2012/13 financial year to the Program was distributed as follows:

- 68.3% (\$1,219,704) of the Program costs were for collection, transport, testing and disposal of material from HHW Permanent facilities (58.2% Metro and 10.1% Non-Metro)
  - Collection, packaging and transport costs for HHW were \$283,040
  - Disposal of HHW costs were \$894,665
  - Testing of unknown chemicals by ChemCentre was \$42,000
- 18.9% (\$338,523) was spent on running and promoting 8 TCDs (7 fully funded and 1 co-funded)
  - Collection, packaging and transport costs for HHW were \$176,539
  - Disposal of HHW costs were \$136,174
  - TCD promotional activities \$25,810
- 6.7% (\$120,000) was for WALGA administration
- 4.8% (\$85,931) was for Permanent facility infrastructure upgrades
- 1.1% (\$19,021) was for HHW Program promotion
- 0.2% (\$3,289) was for Permanent facility staff training.

Table 4 shows the overall expenditure breakdown by activity for the 2012/13 financial year.

<b>ACTIVITY</b>	<b>2012/13 excl. GST</b>
Metro Permanent HHW Facilities (HHW testing, collection and disposal incl. batteries)	\$1,039,765
Metro and Non-Metro Permanent HHW Facility Infrastructure Development	\$85,931
Non-metro HHW Facilities (HHW testing, collection and disposal)	\$179,939
Permanent Facility Staff Training (metro and non-metro)	\$3,289
Temporary Collection Days - fully funded by the HHW Program	\$332,868
Temporary Collection Days - co-funded by the HHW Program and Regional Councils/Local Governments	\$5,655
HHW Program Promotion	\$19,021
WALGA Administration	\$120,000
<b>TOTAL (Excl. GST)</b>	<b>\$1,786,468</b>

**Table 4.** Expenditure breakdown of 2012/13 financial year.

The total cost for testing, collection, treatment and disposal of HHW for Permanent facilities in the 2012/13 financial year was \$1,219,704, which represents a cost of \$2.55/kg (\$2,552/tonne) to the Program. If Local Government/ Regional Council 2012/13 contributions to the Program are added to this cost (\$360,971), the cost of collections from Permanent facilities is \$3.31/kg (\$3,307/tonne).

The total cost for collection, testing, treatment and disposal of HHW from TCDs in 2012/13 was \$312,713, which represents a cost of \$4.09/kg (\$4,088/tonne) to the Program. If Local Government's TCD co-funding is included (\$18,750) the total cost for collection, testing, treatment and disposal of HHW from TCDs would be \$331,463 which represents a cost of \$4.33/kg (\$4,334/tonne).

## 1.4 2013/14 Financial Year Summary

The total expenditure from the 2013/14 financial year was \$2,440,225 and the total weight of HHW collected was 737,268kg (655,364kg from Permanent facilities and 81,904kg from TCDs). The expenditure from the 2013/14 financial year to the Program was distributed as follows:

- 74.7% (\$1,822,614) of the Program costs were for collection, transport, testing and disposal of material from HHW Permanent facilities (67% Metro and 7.7% Non-Metro)
  - Collection, packaging and transport costs for HHW were \$402,848
  - Disposal of HHW costs were \$1,350,806
  - Testing of unknown chemicals by ChemCentre was \$68,960
- 14.8% (\$362,007) was spent on running and promoting 9 TCDs (7 fully funded and 2 co-funded)
  - Collection, packaging and transport costs for HHW were \$174,897
  - Disposal of HHW costs were \$149,406
  - TCD promotional activities \$37,704
- 5.1% (\$125,000) was for WALGA administration
- 5.0% (\$121,945) was for Permanent facility infrastructure upgrades
- 0.4% (\$8,659) was for Permanent facility staff training.

Table 5 shows the overall expenditure breakdown by activity for the 2013/14 financial year.

<b>ACTIVITY</b>	<b>2013/14 excl. GST</b>
Metro Permanent HHW Facilities (HHW testing, collection and disposal incl. batteries)	\$1,635,577
Metro and Non-Metro Permanent HHW Facility Infrastructure Development	\$121,945
Non-metro HHW Facilities (HHW testing, collection and disposal)	\$187,037
Permanent Facility Staff Training (metro and non-metro)	\$8,659
Temporary Collection Days - fully funded by the HHW Program	\$306,756
Temporary Collection Days - co-funded by the HHW Program and Regional Councils/Local Governments	\$55,252
HHW Program Promotion	\$0
WALGA Administration	\$125,000
<b>TOTAL (Excl. GST)</b>	<b>\$2,440,225</b>

**Table 5.** Expenditure breakdown of 2013/14 financial year.

The total cost for testing, collection, treatment and disposal of HHW for Permanent facilities in the 2013/14 financial year was \$1,822,614, which represents a cost of \$2.78/kg (\$2,781/tonne) to the Program. If Local Government/ Regional Council 2013/14 contributions to the Program are added to this cost (\$515,578), the cost of collections from Permanent facilities is \$3.57/kg (\$3,568/tonne).

The total cost for collection, testing, treatment and disposal of HHW from TCDs in 2013/14 was \$324,303, which represents a cost of \$3.96/kg (\$3,960/tonne) to the Program. If Local Government TCD co-funding is included (\$25,568.18), the total cost for collection, testing, treatment and disposal of HHW from TCDs would be \$349,872, which represents a cost of \$4.27/kg (\$4,272/tonne).

## 1.5 2014/15 Financial Year Summary

The total expenditure from the 2014/15 financial year was \$2,195,012 and the total weight of HHW collected was 656,274kg. All HHW collected was from Permanent facilities only, as no TCDs were held in this financial year. There was, however some invoices for various activities that occurred in previous financial years that were not paid until this financial year (including TCD invoices). The total expenditure for the 2014/15 financial year was distributed as follows:

- 85.5% (\$1,877,393) of the Program costs were for collection, transport, testing and disposal of material from HHW Permanent facilities (74.1% Metro and 11.4% Non-Metro)
  - Collection, packaging and transport costs for HHW were \$480,709
  - Disposal of HHW costs were \$1,280,727
  - Testing of unknown chemicals by ChemCentre was \$75,000
  - HHW testing, collection and disposal activities from previous financial years that were not paid until this financial year were \$40,957, (\$23,692 for disposal of HHW, \$10,123 for collection, packaging and transport of HHW from Permanent facilities and \$7,142 for testing of unknown chemicals).
- 7.9% (\$173,733) was for Permanent facility infrastructure upgrades (including \$8,497 for activities that occurred in previous financial years but were not paid until this financial year)

- 6.2% (\$135,000) was for WALGA administration
- 0.3% (\$5,691) was for TCD activities that occurred in previous financial years but were not paid until this year
- 0.1% (\$2,495) was for Permanent facility staff training
- Less than 0.1% (\$700) was for HHW Program promotion.

Table 6 shows the overall expenditure breakdown by activity for the 2014/15 financial year.

<b>ACTIVITY</b>	<b>2014/15 excl. GST</b>
Metro Permanent HHW Facilities (HHW testing, collection and disposal incl. batteries)	\$1,627,024
Metro and Non-Metro Permanent HHW Facility Infrastructure Development	\$173,733
Non-metro HHW Facilities (HHW testing, collection and disposal)	\$250,368
Permanent Facility Staff Training (metro and non-metro)	\$2,495
Temporary Collection Days - fully funded by the HHW Program	\$5,691
Temporary Collection Days - co-funded by the HHW Program and Regional Councils/Local Governments	\$0
HHW Program Promotion	\$700
WALGA Administration	\$135,000
<b>TOTAL (Excl. GST)</b>	<b>\$2,195,012</b>

**Table 6.** Expenditure breakdown of 2014/15 financial year.

The total cost for testing, collection, treatment and disposal of HHW for Permanent facilities, for activities that occurred in the 2014/15 financial year only (excluding any totals from activities that occurred in previous years) was \$1,836,436, which represents a cost of \$2.80/kg (\$2,798/tonne) to the Program. If Local Government/ Regional Council 2014/15 contributions to the Program are added to this cost (\$764,831), the cost of collections from Permanent facilities is \$3.96/kg (\$3,964/tonne).

## 2. Previous Reporting

### 2.1 Previous Report Discrepancies

Through a detailed data review process, in the 2011/12, 2012/13, 2013/14 and 2014/15 HHW Program Annual Reports that were originally submitted to the Waste Authority, some figures and values of expenditure and collection amounts were found to have been incorrectly reported. These errors were due to a combination of reasons, such as:

- Disposal price changes to some materials across the years
- Changes to HHW contractor and invoice information changes
- A different contractor for some CFL collections
- Invoicing inconsistencies
- Data entry errors
- Spreadsheet set-up and formula issues
- Records management concerns causing multiple versions of documents.

The figures in this Report for each financial year is an accurate representation of the expenditure of the Program and tonnages collected, and corrects any previously reported figures. Processes and checks have been put in place to minimise errors for any future reporting.

### **3. Discussion and Conclusion**

At the conclusion of 4 years of the HHW Program, from 2011/12 to 2014/15, \$7,544,945 was expended and a total of 2,196,385kg of HHW was collected from Permanent facilities and TCDs. Almost 80% of the Program expenditure was on the collection, sorting, transportation, testing and disposal of HHW from Permanent facilities and less than 10% was spent on promoting and running TCDs. Almost 7% of expenditure was for WALGA administration expenses, 5% was spent on infrastructure improvement in Permanent facilities and less than 1% was spend on training Permanent facility staff and promoting the HHW Program.

Paint collections over the 4 years comprised 63% of materials collected by weight and paint disposal was 31% of the entire Program expenditure.

This Report provides corrected expenditure and collection figures, as the figures reported in the Annual Reports from 2011/12 to 2014/15 had some incorrect totals. The corrected amounts in this Report provides the most accurate figures possible, with the understanding that these totals replace any of the previously reported figures. Throughout the Program improvements have been made in relation to data entry and recording, and the range of areas where errors can occur have been minimised.