

**Household Hazardous Waste Program
Program Summary and Forecasts for 2010-11**



16 February 2010

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1. Household Hazardous Waste Collected February to December 2009

From February to December 2009:

18 collections of household hazardous waste (HHW) were made from 6 permanent facilities in the Perth metropolitan area and the City of Geraldton-Greenough.

12 temporary collection days were held.

In total, **149,089.5kg** of HHW was collected. The most common materials, by weight, were (Figure 1):

- water based paint 29,035kg
- propane gas cylinders 26,780kg
- solvent based paint 24,840kg
- flammable liquids (hydrocarbons and fuels) 24,824kg

Total disposal costs (not including GST) were **\$1,557,002**. The most expensive materials to disposed of were (Figure 2):

- solvent based paint 19% of disposal costs
- flammable liquids (hydrocarbons and fuels) 19% of disposal costs
- water based paint 19% of disposal costs
- non-Schedule X pesticides 17% of disposal costs

Total Cost

The total cost of holding the temporary collection days and permanent facility collections in this period (including all transport, collection and disposal costs) was:

| | | |
|---|---------------------------|---------------------------|
| | \$895,943 | Permanent facilities |
| + | <u>\$1,417,956</u> | Temporary collection days |
| | \$2,313,889 | inc. GST |

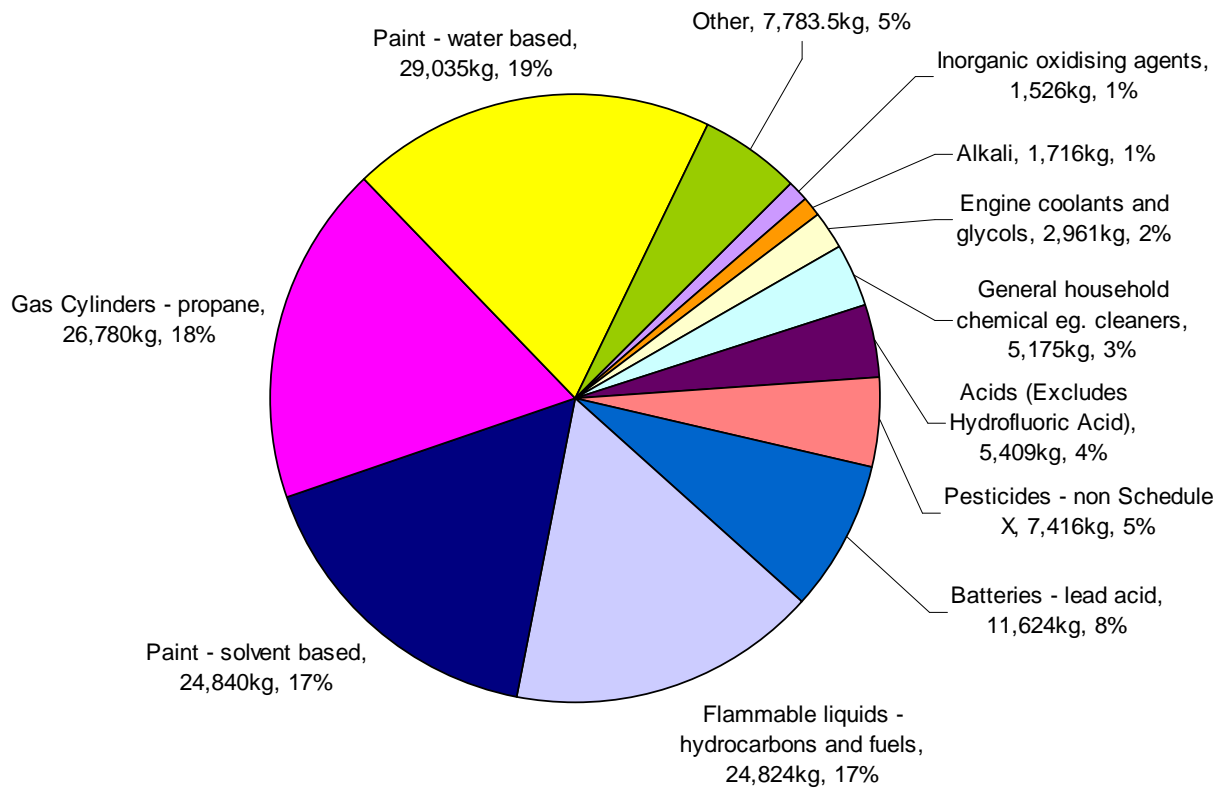


Figure 1: HHW collected at temporary collection days and permanent facilities, February to December 2009 (by weight).

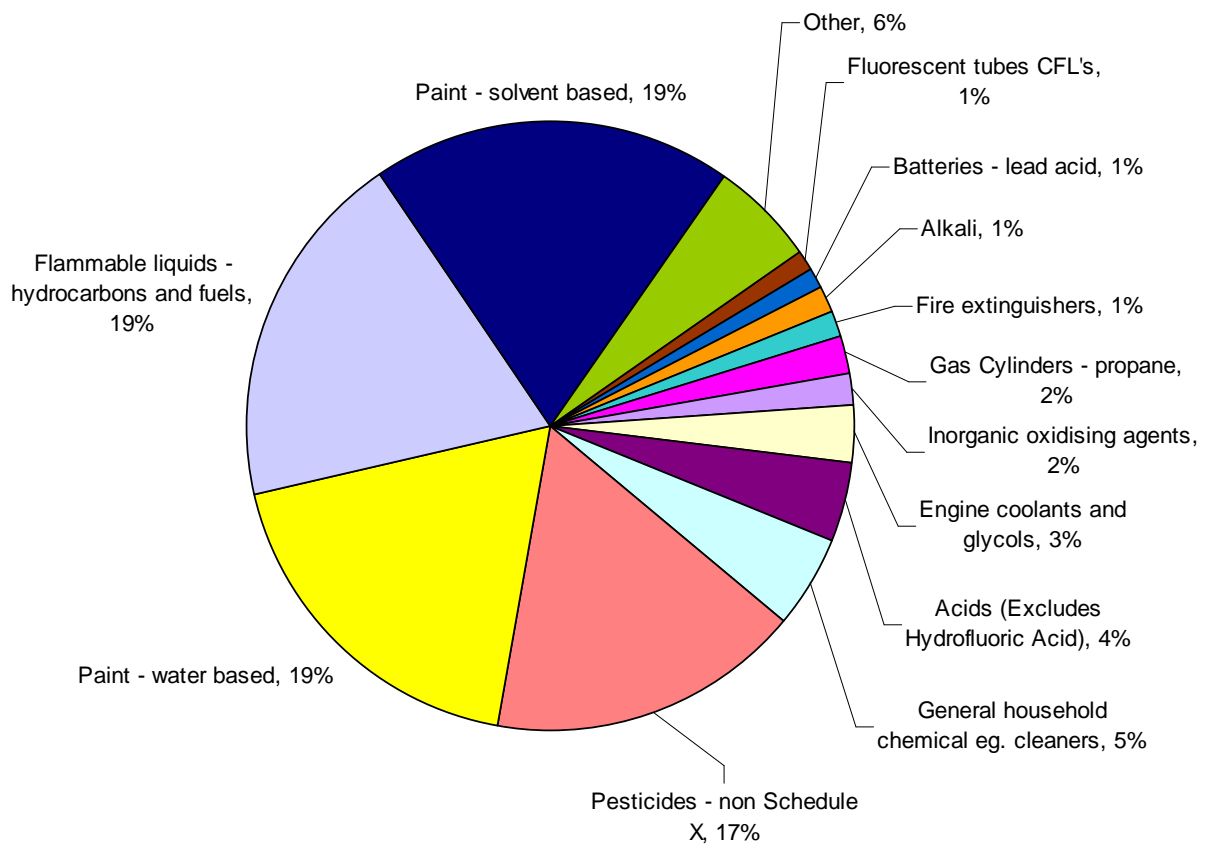


Figure 2: HHW collected at temporary collection days and permanent facilities, February to December 2009, as a proportion of disposal cost.

2. Household Hazardous Waste Programs in SA, NSW and Victoria

All states in Australia have strategies for collecting and disposing of household hazardous waste, but the State Government funded programs in South Australia, Victoria and New South Wales are the most similar to WA's HHW Program. In all of these states the State Government covers the cost of the HHW programs, with no external funding sources, sponsorship or EPR schemes in place.

Permanent Facilities

As Table 1 shows, all states have permanent collection facilities for HHW, but the level of provision of this service differs greatly:

- SA has only one permanent facility.
- The 13 facilities in Victoria accept only low toxicity high volume products (paint, motor oil, gas cylinders, batteries, CFL's).
- NSW has no major permanent facilities, but there are plans to establish some in the near future.

Temporary Collection Days

The temporary collection days are run in a very similar way in each state and, with some exceptions, all states accept virtually the same HHW materials (Table 1). The number of temporary collections held annually ranges from around 22 in SA to 38 in NSW. In WA temporary collections days have been restricted to the metropolitan area, but in other states they are also held in the non-metropolitan area.

Types of HHW Collected

There are many similarities in the proportion of the types of HHW collected through the temporary collection days in WA, SA, Victoria and NSW. Used motor oil is accepted through the programs in SA and NSW, but not in WA and Victoria, and SA's HHW Program is the only one that accepts agricultural chemicals as well as domestic. Household hazardous waste is categorised differently in each state, but a rough comparison of waste types collected has been made in Figure 3.

In each state, water and solvent based paint is the greatest material collected by weight, ranging from 43% to 56% of waste collected.

Other material collected in high volumes in each state include:

- Oils and hydrocarbons (8-22%)
- Batteries (10-14%)
- Gas bottles and fire extinguishers (5-11%).

There is no data available to compare the household hazardous waste collected at permanent storage facilities in the different states.

Visitor Participation in Temporary Collection Days

- Participation at the temporary collection days ranges from an average of 144 vehicles in WA to 598 in NSW (Table 1).
- The amount of HHW disposed of by each vehicle was highest in SA (57.1kg per vehicle), followed by Victoria (42.5kg), NSW (33.6kg) and WA (27.6kg).

Methods of HHW Disposal

Western Australia

There are differences in the way the HHW collected in each state is disposed of, and the costs of disposal. In WA, the most expensive materials to dispose of February to December 2009 were solvent based paint, flammable liquids, water based paint, and non-Schedule X pesticides.

Toxfree treats water based paint by fixation and landfilling. Solvent based paint, flammable liquids and non-Schedule X pesticides are transported to Port Hedland for incineration.

South Australia

In South Australia, Transpacific is contracted to run temporary collection days and dispose of HHW. Paint and flammable liquids are treated by distillation. The cleaned solvents are onsold, and the wastes from the process are incinerated. Water is extracted from the water based paints, and the residue is landfilled.

Victoria

In Victoria, Chemsal is contracted to run temporary collection days and dispose of HHW. Almost all liquid waste sent to Geocycle Victoria, who uses it to make fuel blends to fuel cement kilns. Waste that needs plasma arc treatment is sent interstate.

New South Wales

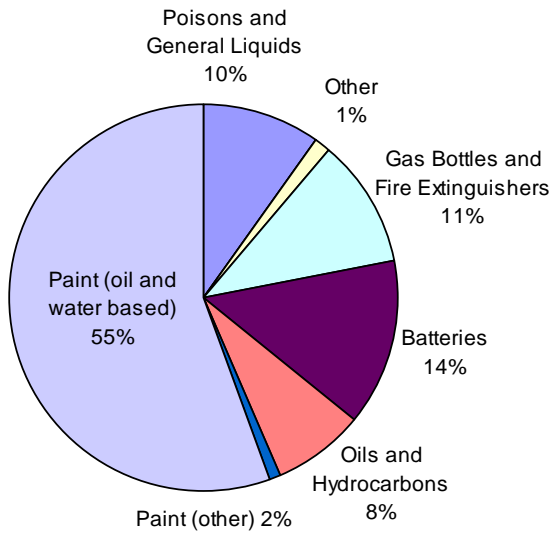
Two contractors: Transpacific in the Hunter area, Chemcell in Sydney and Illawarra area.

Conclusion

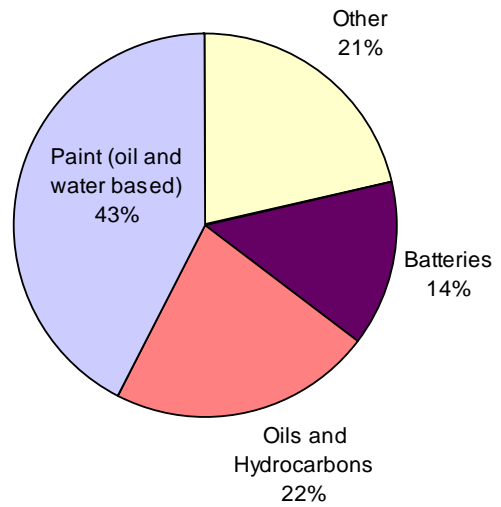
There are several reasons for the high HHW disposal costs in WA, in comparison with other states:

- **WA's HHW Program is relatively new.** In other states there has been more time to establish methodologies, gather data, and create public awareness. When these states go out to tender for HHW collection and disposal services, they are able to provide relatively accurate information about the amount and types of waste that they expect to be collected.
- **In other states there is more competition between companies** who provide HHW collection and disposal services. In WA, only two companies tendered for the HHW Program, and only one (Toxfree) has its own incinerator facilities in WA.
- **WA has no HHW reprocessing infrastructure.** In SA, for example, solvent based chemicals can be distilled, and the cleaned solvents onsold. WA has very restricted HHW disposal options, and most waste is incinerated.
- **There is no market for HHW, or the end products of reprocessed HHW, in WA.** In Victoria many types of HHW are burned as a fuel source, and in SA there are markets for distilled solvents.
- **There are greater volumes of HHW in the other states, than in WA.** WA is competitive with regard to waste disposed of per person, but has lower overall volumes. This limits the economic viability of disposal option, such as reprocessing.

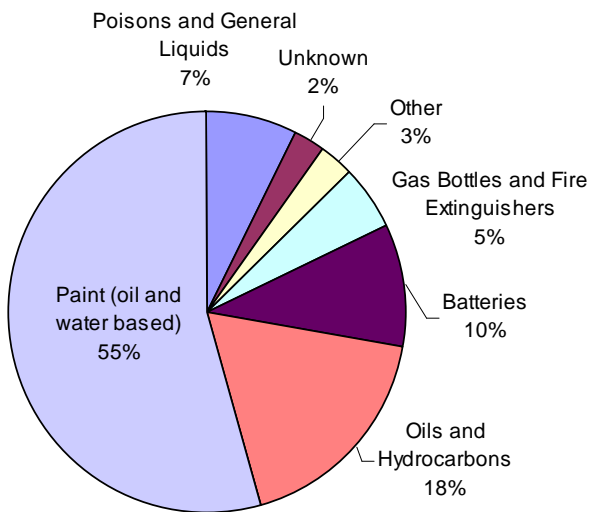
WA: 21 Temporary Collection Days Feb-Oct 2009



SA: 24 Metro Temporary Collection Days 2004-07



VIC: 38 Temporary Collection Days 2007-08



NSW: 38 Temporary Collection Days 2007-08

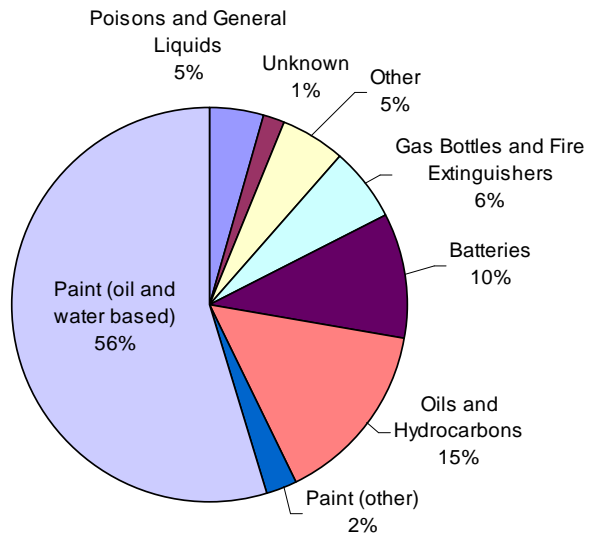


Figure 3: Waste types collected at temporary collection days in WA, SA, VIC and NSW (by weight).

Table 1: Comparison of HHW programs in WA, SA, Victoria and NSW.

| | WA | SA | Victoria | NSW |
|--|---|--|---|--|
| State Population | 2,130,797 | 1,591,930 | 5,246,079 | 6,926,990 |
| Name of Program | Household Hazardous Waste Program | Household and Farm Chemical Collection Program | Detox Your Home | CleanOut |
| Start of Program | May 2008 | March 2004 | Around 1995 | March 2003 |
| Program run by | WALGA in cooperation with Regional Councils | Zerowaste SA in cooperation with Local Governments | Sustainability Victoria | Department of Environment and Climate Change (DECC) in partnership with Local Govt. |
| Program funded by | Waste Authority | Zerowaste SA. In the past have had sponsorship arrangements with a couple of metropolitan water authorities. | Sustainability Victoria (funded through the Landfill Levy) | NSW Environmental Trust |
| Permanent Facilities | 6 facilities in the Perth metro area. Accept all HHW for free. | 1 permanent facility open to the public on the first Tuesday of every month. Accepts all HHW for free. | 6 metro and 7 regional facilities. Accept only low toxicity high volume products (paint, motor oil, gas cylinders, batteries, CFL's). | No major permanent facilities. Some minor metro and regional facilities which take limited types of HHW. Privately run facilities accept limited HHW and charge for disposal. Plans to establish permanent facilities in the future. |
| Temporary Collection Days (TCD's) | <ul style="list-style-type: none"> • Currently 20 scheduled per year, metro area only. • Program pays for running the TCD and waste disposal. • Additional TCD's: Program pays for disposal and segregation/packaging, Regional Council pays for running the TCD. • Any resident can take HHW to any collection for free. • One contractor (Toxfree) runs TCD's, transports and disposes of HHW. | <ul style="list-style-type: none"> • Around 6 metro and 16 regional collections per year. • Program pays for TCD's, LG's pay for advertising, provides traffic and unloading staff. • Additional TCD's: Program organises TCD but Local Govt. must pay (ZeroWaste pays for disposal of materials that can't be disposed of in SA). • Any resident can take HHW to any collection for free. • One contractor runs TCD's, transports and disposes of HHW. | <ul style="list-style-type: none"> • Around 34 per year in metro and regional areas. • No additional TCD's. • Any resident can take HHW to any collection for free. • One contractor runs TCD's, another contractor collects and disposes of HHW. | <ul style="list-style-type: none"> • Around 38 per year in metro and regional areas. • Additional TCD's: Program co-funds (50%) collections in regional areas not covered by the Program. • Any resident can take HHW to any collection for free. • Two contractors: Transpacific in the Hunter area, Chemcell in Sydney and Illawarra area. |

| | WA | SA | Victoria | NSW |
|--------------------------------|--|--|--|--|
| Promotion of TCD's | Through the Program, Regional Councils given a contribution of \$3,300 inc. GST to advertise each collection. Regional Councils choose which form of advertising to use (usually local newspaper advertising, letter box drops). | The Local Governments pay for advertising, but it is done as per Zero Waste guidelines. | LG's pay for distribution of advertising, State Govt. pays for printing. Program has contractor to run communications side. For each TCD: 4 newspaper ads, brochures, posters. | Advertising – mail out of brochures done with LG rates. Brochures in letter box not effective – much better when with rates notice. Newspaper ads also effective. |
| Types of waste accepted | <ul style="list-style-type: none"> Pesticides/Herbicides Flammables Paints Batteries Thinners/Solvents Household Acids and Alkalis Gas Bottles CFL's and Fluorescent Tubes Pool Chemicals | <ul style="list-style-type: none"> Acids and alkalis Pharmaceuticals Garden chemicals Agricultural and veterinary chemicals Fertilizers Paints Solvents Oils Batteries Cleaning chemicals Pool chemicals Photographic chemicals Fluorescent light tubes Gas cylinders Smoke detectors | <ul style="list-style-type: none"> Acids & alkalis Aerosol cans Batteries - household Cleaners - ammonia based CFLs Detergents, disinfectants & drain cleaners Fertiliser Fire extinguishers Floor-care products & waxes Fluorescent tubes Fuels Gas cylinders Glues - water-based & solvents Herbicides & weed killers Insect spray/pesticides Nail polish & remover Oven cleaner Paint Paint stripper, thinner & turps Pool chemicals Rat poison Solvents Wood preservatives & finishes Anti-freeze Batteries - automotive Brake fluid Car body filler and wax Coolant Transmission fluid | <ul style="list-style-type: none"> Solvents and household cleaners Floor care products Ammonia based cleaners Fluorescent globes and tubes Paint and paint related products Pesticides and herbicides Poisons Gas bottles Fire extinguishers Pool chemicals Hobby chemicals Acids and alkalis Car batteries Motor oils, fuels and fluids |

| | WA | SA | Victoria | NSW |
|---|---|---|---|--|
| Wastes not accepted | Tyres Asbestos Electronic Waste Ammunition Mobile phones Printer cartridges Waste from commercial or industrial sources Pharmaceuticals Waste Oil Farm chemicals | Tyres Asbestos Electronic Waste Ammunition Mobile phones Printer cartridges Waste from commercial or industrial sources | Tyres Asbestos Electronic Waste Ammunition Mobile phones Printer cartridges Waste from commercial or industrial sources Pharmaceuticals Waste oil Farm chemicals | Tyres Asbestos Electronic Waste Ammunition Mobile phones Printer cartridges Waste from commercial or industrial sources Pharmaceuticals Farm chemicals |
| Participation in TCD's | February to October 2009: 21 TCD's, 3146 vehicles (average 144 per TCD) | July 2007 to June 2008: 22 TCD's, 3,869 vehicles (average 177 per TCD) | July 2007 to June 2008: 38 TCD's, 10,434 vehicles (average 275 per TCD) | July 2007 to June 2008: 38 TCD's, 22,711 households (average 598 per TCD) |
| Amount of waste collected at TCD's | February to October 2009: 21 TCD's, 3146 vehicles, 88,388kg of HHW (average 27.6kg per vehicle or 4208.9kg per TCD) | July 2007 to June 2008: 22 TCD's, 3,869 vehicles, 220,945kg HHW (average 57.1kg per vehicle or 10,043kg per TCD) | July 2007 to June 2008: 38 TCD's, 10,434 vehicles, 443,467.5kg HHW (average 42.5kg per vehicle or 11,670.2kg per TCD) | July 2007 to June 2008: 38 TCD's, 22,711 households, 763,397kg of HHW (average 33.6kg per household or 20,089.4kg per TCD) |
| Program Website | www.wastenet.net.au/programs/hhwprog/index.html | www.zerowaste.sa.gov.au/About.mvc/HazardousWaste | www.sustainability.vic.gov.au/www/html/2724-resourcesmart-detox-your-home.asp | www.environment.nsw.gov.au/households/CleanoutGuide.htm |

3. Budget Forecast for 2010-2011 Financial Year

The budget forecast in Table 2 shows four different budget outlines/examples for the 2010-11 financial year.

The assumptions made in creating these budget forecasts include:

The Permanent Facilities:

- Estimates have been set for each facility, based on the cost of collections in 2009. If costs prove to be higher than the estimates, these could be covered by a contingency fund.
- The volumes and types of HHW collected will be similar to 2009.
- There will only be 6 metro facilities participating in the program (no budget for inclusion of the City of Canning).
- The only non-metro facilities potentially participating will be Geraldton-Greenough, Bunbury and Mandurah (one off collections only, not regular collections).

Temporary Collection Days:

- The estimated cost per temporary collection day is \$100,000 – this is higher than the current average of around \$71,000, but it is anticipated that with fewer, more highly publicised temporary collection days, the number of participants will increase.

Battery Collection Program:

- The metropolitan-wide battery collection program began in September 2009. It is anticipated that the batteries will be collected and disposed of in March and September 2010, but the quantity and cost is unknown. An estimate of \$50,000 per collection has been given, based on previous data, but this is very rough and will likely prove inaccurate.

Infrastructure Projects:

- A budget of \$220,000 has been given, based on estimates made in 2009.
- This estimate includes 50% of the cost building new HHW infrastructure at the SMRC and City of South Perth, and infrastructure upgrades at the EMRC, MRC and the City of Stirling.
- As the Local Governments/Regional Councils must match funding, it is likely that not all of those eligible for funding will go ahead with infrastructure projects in 2010-11, so not all of these allocated funds may be spent.

Contingency Fund:

- This is funding that will be allocated to the HHW Program, but will not be spent unless necessary.
- Many of the costs associated with the HHW Program are demand-driven and therefore largely unpredictable. The contingency funding will ensure these costs can be met if they are higher than anticipated.
- The contingency fund could be used to cover all/some of the difficult to estimate Program activities: temporary collection days, permanent facility collections (especially in non-metro areas), Chemistry Centre testing, the Battery Program.

Example 1: Budget \$1.3 million inc. GST

Pros

- Cheapest scenario – budget likely to be close to the allocated annual funding of \$1.1million inc. GST.
- Costs of HHW disposal from permanent facilities likely to be covered (based on 2009 estimates).

Cons

- No temporary collection days.
- No participation by non-metro permanent facilities.
- No infrastructure projects.
- No training for permanent facility staff.
- No contingency funding.
- No funding to include the City of Canning in permanent facility collections.

Example 2: Budget \$1.7 million inc. GST

Pros

- HHW Program costs for temporary collection days decreased as Regional Councils contribute (cover costs of running the TCD's).
- 5 temporary collection days, with limited advertising.
- Costs of HHW disposal from permanent facilities likely to be covered (based on 2009 estimates).
- 1 training session for metro permanent facility staff.

Cons

- No participation by non-metro permanent facilities.
- No infrastructure projects.
- No contingency funding.
- No funding to include the City of Canning in permanent facility collections.

Example 3: Budget \$2.4 million inc. GST

Pros

- Costs of HHW disposal from permanent facilities likely to be covered (based on 2009 estimates).
- 2 temporary collection days, with increased advertising.
- 2 non-metro permanent facility collections.
- 2 metro training sessions for permanent facilities.
- Metro infrastructure projects included.
- Contingency funding – allows for unexpected costs.

Cons

- Only 2 temporary collection days, therefore cannot be spread over all Regional Council areas.
- Very limited participation from non-metro permanent facilities.
- No funding to include the City of Canning in permanent facility collections.

Example 4: Budget \$2.8 million inc. GST

Pros

- Costs of HHW disposal from permanent facilities likely to be covered (based on 2009 estimates).
- 5 temporary collection days (one in each Regional Councils) with widespread advertising.
- Participation by non-metro permanent facilities: 3 collections and 1-2 training sessions.
- 2 metro training sessions for permanent facilities.
- Metro infrastructure projects included.
- Contingency funding – allows for unexpected costs.

Cons

- Most expensive scenario.
- No funding to include the City of Canning in permanent facility collections.

Table 2: Examples of budget forecasts for 2010-11.

| Activity | Example 1 | | Example 2 | | Example 3 | | Example 4 | |
|---|-----------------------------|---|------------------------------|--|------------------------------|---|------------------------------|---|
| | Budget \$1,300,000 inc. GST | | Budget: \$1,700,000 inc. GST | | Budget: \$2,400,000 inc. GST | | Budget: \$2,800,000 inc. GST | |
| Metro General Permanent Facility Collections | \$1,005,107 | Based on 2009 data. Not inc. Canning | \$1,005,107 | Based on 2009 data. Not inc. Canning | \$1,005,107 | Based on 2009 data. Not inc. Canning | \$1,005,107 | Based on 2009 data. Not inc. Canning |
| Metro CFL and Drummed Paint Collections | \$30,574 | Based on 2009 data. Not inc. Canning | \$30,574 | Based on 2009 data. Not inc. Canning | \$30,574 | Based on 2009 data. Not inc. Canning | \$30,574 | Based on 2009 data. Not inc. Canning |
| Non-metropolitan Permanent Facility Collections | \$0 | No non-metro permanent facility collections | \$0 | No non-metro permanent facility collections | \$120,000 | 2 collections (Mandurah and Geraldton) | \$180,000 | 3 collections (Bunbury, Mandurah and Geraldton) |
| Permanent Facility Staff Training | \$0 | No training | \$5,000 | 1 metro training session | \$5,000 | 2 metro training sessions | \$10,000 | 2 metro and 1-2 non-metro training sessions |
| Temporary Collection Days - Waste Authority Contribution | \$0 | No TCD's | \$400,000 | 5 TCD's (one per Regional Council). Waste Authority pays for waste disposal, Regional Councils pay for cost of running day | \$200,000 | 2 TCD's (1 north and 1 south of the river). Costs fully covered by HHW Program (no Regional Council Contribution) | \$500,000 | 5 TCD's (one per Regional Council). Costs fully covered by HHW Program (no Regional Council Contribution) |
| Temporary Collection Days - Regional Council Contribution | \$0 | | \$100,000* | | \$0 | | \$0 | |
| Temporary Collection Day promotion | \$0 | No TCD promotion | \$16,500 | Current TCD promotion budget of \$3300 per TCD inc. GST | \$20,000 | \$10,000 per TCD | \$72,000 | Estimate based on full metro coverage of brochures |
| Battery Collection | \$100,000 | Rough estimate - costs unknown | \$100,000 | Rough estimate - costs unknown | \$100,000 | Rough estimate - costs unknown | \$100,000 | Rough estimate - costs unknown |
| Chemistry Centre | \$13,200 | Estimate based on 2009 costs | \$13,200 | Estimate based on 2009 costs | \$13,200 | Estimate based on 2009 costs | \$13,200 | Estimate based on 2009 costs |
| Salaries | \$68,652 | Includes 4.5% CPI increase | \$68,652 | Includes 4.5% CPI increase | \$68,652 | Includes 4.5% CPI increase | \$68,652 | Includes 4.5% CPI increase |
| Overheads | \$38,717 | Includes 4.5% CPI increase | \$38,717 | Includes 4.5% CPI increase | \$38,717 | Includes 4.5% CPI increase | \$38,717 | Includes 4.5% CPI increase |
| Infrastructure Projects | \$0 | No infrastructure projects | \$0 | No infrastructure projects | \$220,000 | Estimated cost of metro infrastructure projects | \$220,000 | Estimated cost of metro infrastructure projects |
| Contingency Fund | \$0 | No contingency fund | \$0 | No contingency fund | \$500,000 | To be spent on TCD's, permanent facilities, battery disposal or Chemistry Centre if needed | \$500,000 | To be spent on TCD's, permanent facilities, battery disposal or Chemistry Centre if needed |
| TOTAL | \$1,256,250 | | \$1,677,750 | | \$2,321,250 | | \$2,738,250 | |

* Not included in HHW Program budget, as funding comes from Regional Councils.

4. Permanent Facilities

4.1 General HHW Collections February to December 2009

There are two kinds of collections made from the permanent facilities:

- (1) **General collections:** these are collections of all categories of HHW, usually made when the storage capacity of the facility has been reached.
- (2) **Specific material collections:** these are collections of only one kind of HHW (e.g. drummed paint, CFL's or batteries). Drummed paint is often collected at the same time as general HHW, or may be disposed of at separate collections.

There were 18 general HHW collections were made between February and December 2009, These were from the 6 permanent HHW storage facilities in the metropolitan area that participate in the HHW Program, and in April 2009 there was also a collection made from the city of Geraldton (Table 3).

In this period a total of **60,701kg** of HHW was disposed of through general HHW collections, or an average of **3,372kg** of HHW per collection.

The total cost of HHW collection, transport and disposal (including GST) was **\$895,943**, or an average of **\$49,774** per collection.

Table 3: Summary of permanent HHW storage facilities, February to December 2009.

| Facility | Operated By | Number of general HHW collections Feb-Dec 2009 | Total cost of HHW collections Feb-Dec 2009 (inc. GST) | Average cost of HHW collections Feb-Dec 2009 (inc. GST) | Notes |
|---|-----------------------------|--|---|---|--|
| Red Hill Waste Management Facility | EMRC | 4 | \$90,784 2,924kg of HHW collected | \$22,696 Average of 731kg of HHW per collection | Red Hill drums water and solvent based paint. CFL's are also collected here, and disposed of through CMA Ecocycle. |
| Henderson Waste Recovery Park | City of Cockburn | 5 | \$371,833 36,854kg of HHW collected | \$74,366 Average of 7,371kg of HHW per collection | Henderson drums water and solvent based paint. Large volumes of waste collected as Henderson is a transfer station, and staff actively seek to separate out any HHW that comes onsite. |
| Millar Road Landfill Facility | City of Rockingham | 2 | \$94,318 4,790kg of HHW collected | \$47,159 Average of 2,395kg of HHW per collection | Paint is onsold through tip shop, used on site, or disposed of through the Program. |
| Tamala Park Waste Disposal Facility | MRC | 4 | \$197,268 9,664kg of HHW collected | \$49,317 Average of 2,416kg of HHW per collection | Tamala Park drums water and solvent based paint. CFL's are also collected here, and disposed of through CMA Ecocycle. |
| Recycling Centre Balcatta | MRC | 2 | \$88,402 4,359kg of HHW collected | \$44,201 Average of 2,180kg of HHW per collection | Paint is onsold through tip shop or disposed of through the Program. |
| Armadale Landfill and Recycling Facility | City of Armadale | 2 | \$24,786 No data on HHW collected is available | \$12,393 No data on HHW collected is available | This data is from 2008. Armadale had no HHW collections in 2009, but anticipates 2 per year in 2010. |
| Meru Waste Disposal Facility | City of Geraldton-Greenough | 1 | \$53,335 2,110kg of HHW collected | \$53,335 2,110kg of HHW collected | |

4.2 Specific Material Collections February to December 2009

As well as collections of general HHW, the permanent facilities also require collection and disposal of specific materials:

- **PAINT:** Some of the permanent facilities decant the paint they receive into drums. When the drums are full, Toxfree is contacted to collect and dispose of them. This may occur at the same time as a general HHW collection, or separately. The cost of disposal of the drums depends on whether the paint is water or solvent based.
- **CFL's:** Some permanent facilities use CMA Ecocycle boxes to collect CFL's and fluorescent tubes. When the boxes are full, CMA Ecocycle collects and disposes of them.
- **BATTERIES:** Some permanent facilities have battery collection facilities. However, in September 2009 the new metropolitan-wide battery collection program began. It is anticipated that batteries will now be collected and disposed of twice each year (in March and September). The costs of the program are unknown, however based on previous data, a rough estimate of \$50,000 has been given.

As Table 4 shows, there were 8 CFL collections from Red Hill and Tamala Park, February to December 2009. Drummed paint was usually collected at the same time as general HHW, but there were 4 specific collections of drummed paint from the Tamala Park facility in this period.

Table 4: Specific material collections from permanent facilities, February to December 2009.

| Material | Facility | No. specific collections Feb-Dec 2009 | Total cost of specific collections Feb-Dec 2009 (inc. GST) | Average cost of specific collections Feb-Dec 2009 (inc. GST) |
|----------------|-------------------------------------|---------------------------------------|--|--|
| CFL's | Red Hill Waste Management Facility | 5 | \$4,007 680kg of CFL's collected | \$801 Average of 136kg of CFL's per collection |
| | Tamala Park Waste Disposal Facility | 3 | \$4,584 1,577kg of CFL's collected | \$1,528 Average of 526kg of CFL's per collection |
| Drummed Paint* | Tamala Park Waste Disposal Facility | 4 | \$17,590 67 drums (13,400L) of paint collected | \$4,397 Average of 16.75 drums per collection |

* In total there were 12 collections of drummed paint Feb-Dec 2009, but 8 were done at the same time as general HHW collections. The cost of these has been included in Table 5.

6. Temporary Collection Days

Since the HHW Program began in May 2008, 32 temporary collection days have been held. In total, 4595 vehicles have attended the temporary collections, or on average 144 per day.

Between February and December 2009, there were **21** temporary collection days. **3146** vehicles attended, and each vehicle disposed of an average of **27.6kg** of HHW.

As Table 5 shows, the total cost of the temporary collections in this period was \$1,483,051, with a range \$32,836 to \$114,201 per day. **The average cost per temporary collection was \$70,621.**

Table 5: Temporary Collection Days, February to December 2009.

| Regional Council | Location | Date | Kg of HHW | No. Vehicles Attending |
|------------------|---------------|------------|-----------------|------------------------|
| SMRC | Cockburn | 28/02/2009 | 3240 | 120 |
| MRC | Wanneroo | 7/03/2009 | 1456 | 64 |
| EMRC | Kalamunda | 14/03/2009 | 4316 | 177 |
| MRC | Stirling C.C. | 28/03/2009 | 6528 | 244 |
| WMRC | Cottesloe | 4/04/2009 | 6991 | 303 |
| EMRC | Mundaring | 18/04/2009 | 657 | 80 |
| RRC | Mandurah | 3/05/2009 | 7662 | 225 |
| EMRC | Swan | 9/05/2009 | 3094 | 165 |
| MRC | Joondalup | 23/05/2009 | 6539 | 203 |
| EMRC | Bassendean | 6/06/2009 | 6664 | 248 |
| WMRC | Brockway | 20/06/2009 | 3780 | 155 |
| SMRC | Kwinana | 27/06/2009 | 1255 | 38 |
| MRC | Victoria Park | 25/07/2009 | 5740 | 180 |
| SMRC | Canning Vale | 8/08/2009 | 2605 | 99 |
| EMRC | Belmont | 9/08/2009 | 1402 | 86 |
| MRC | Cambridge | 15/08/2009 | 3961 | 130 |
| RRC | Gosnells | 22/08/2009 | 3909 | 128 |
| WMRC | Mosman Park | 5/09/2009 | 4068 | 156 |
| MRC | Vincent | 19/09/2009 | 6095 | 208 |
| EMRC | Chidlow* | 17/10/2009 | 1762 | 4 |
| EMRC | Bassendean | 5/12/2009 | 6664 | 133 |
| TOTAL | | | 88,388kg | 3146 |

* Includes HHW from the temporary collection day and stored at the transfer station, therefore not included in average weight of HHW per vehicle statistics.