

INFORMATION BULLETIN

Issue No. 46 December 2018



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RRF UPDATE REPOR

RESOURCE RECOVERY FACILITY UPDATE REPORT	
File No:	WST/13-07
Attachment/s:	Nil
Date:	14 January 2019
Prepared by:	Director Corporate Services

This report presents a summary of activities that have taken place in the reporting period covering 1 November 2018 to 31 December 2018.

OPERATIONAL MATTERS

On Monday 26 November 2018 the RRF commenced a one week planned shutdown to undertake maintenance activities as follows:

Replace damaged cladding between receivals and maturation hall.

Recalibration of grapple crane.

Install second hydraulic power pack to provide redundancy and dual composter loading.

Install wear plates in both composter inlet hoppers.

Sample oil from all 16 composter bearings.

Replace conveyor belt on 300cv24, 600cv11 and 600cv21.

Remove corroded internal gutter supports in south side of maturation hall and fit new support frames and clean all aeration ducts.

Fit new power supply to Turner 1.

General housekeeping activities only possible in a shut down.

The facility closed on Christmas day as planned.

OPERATIONAL INFORMATION

Waste Delivery

Waste Delivery Summary for Reporting Period

MONTH	SCHEDULED TONNES	DELIVERED TONNES	DIFFERENCE TONNES
November 2018	6,800	7,028	228
December 2018	8,400	8,469	69

For the 10th Contract Year, for the period to 31 December 2018, the RRF was 4,551 tonnes ahead of schedule as a result of additional throughput at the plant.

The RRF is operating as anticipated in the RRFA, with average availability of 109.6% over the past 12 months.

On a monthly basis, Additional Tonnes (those tonnes greater than the monthly scheduled tonnes) only incur the Variable Operating Cost charge, but not the Capital Cost or Fixed Operating Cost charges.

Unavailable Tonnes (those tonnes less than the monthly scheduled tonnes) are not paid for unless:

• Within the Contract Year there is a positive balance of Additional Tonnes, these Additional Tonnes can be off-set against the Unavailable Tonnes. In this case, the

off-set Additional Tonnes incur the full gate fee cost less the Variable Operating Cost (which has already been paid on the Additional Tonnes); or

• If the RRF Availability for a month is less than 92% of the monthly Scheduled Tonnes and there are no accumulated Additional Tonnes remaining to be off-set, then the MRC is required to pay the Capital Cost on all Unavailable Tonnes up to 92% of the monthly Scheduled Tonnes.

At the end of the Contract Year, if 100,000 tonnes of waste have been delivered to the RRF then the above "overs and unders" system should balance out.

The exception to the above is the tonnes not processed during the composter replacement.

The MRC entered into a standstill deed with BioVision which deals with the operations of the plant during this period. The tonnes scheduled for processing but not processed during the shutdown have been recorded as Accrued Tonnes. The MRC has already paid the capital cost component of the RRF Gate Fee in relation to these tonnes and so the Accrued Tonnes will be processed for the MRC at the end of the RRFA contract with the MRC only have to pay the fixed and variable components of the RRF Gate Fee.

Waste Diversion

Waste Diversion for the contract year to date (December 2018) was 55.6% against a Waste Diversion Target of 51.3%.

Community Complaints

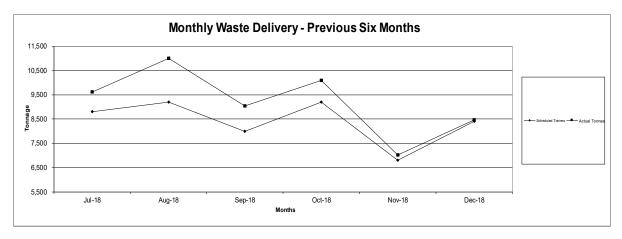
BioVision last met with its community stakeholder group on 30 November 2015 and no serious issues were raised. BioVision is continuing engagement with the selected key stakeholders, in particular the Banksia Grove development and the Wanneroo Golf Course.

COMMUNITY COMPLAINTS SUMMARY FOR THE REPORTING PERIOD

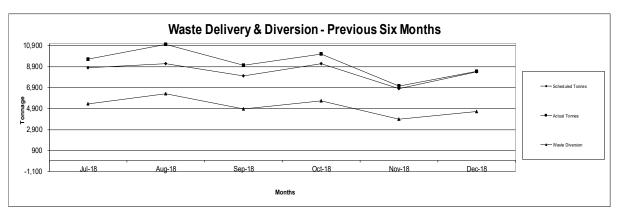
Date	Complaint	From	Outcome
Nov 18	None	N/A	N/A
Dec 18	None	N/A	N/A

The graphs below provide data up to 31 December 2018.

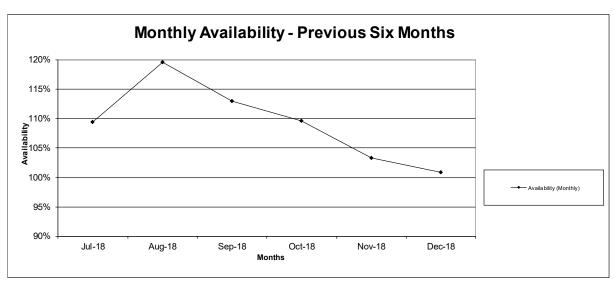
Graph No. 1 – Monthly Waste Delivery – Previous Six Months



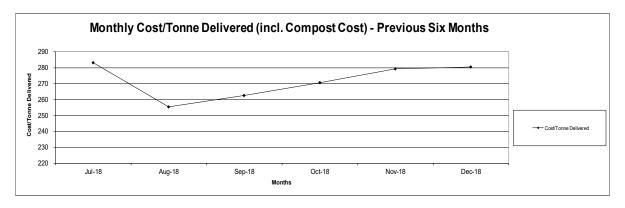
Graph No. 2 – Waste Delivery & Diversion – Previous Six Months



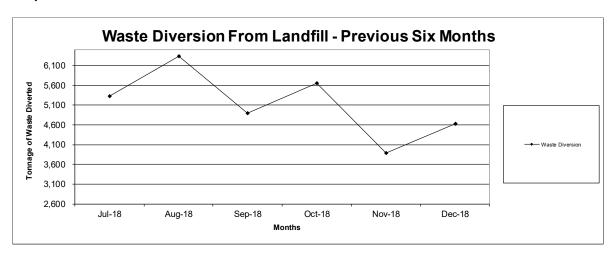
Graph No. 3 – Monthly Availability – Previous Six Months



Graph No. 4 - Monthly Cost/tonne Delivered (incl. Compost Cost) - Previous Six Months



Graph No. 5 – Waste Diversion from Landfill – Previous Six Months



Performance Indicators

KPI's as per the RRFA are as follows:

Table No. 1 – KPI Summary (to 31 December 2018)

КРІ	Target	Previous six months	Nov	Dec
Availability*	95%	109.3%	103%	101%
Environmental Standard - Number of Breaches	0	0	0	0
Waste Diversion	51.3%	55.6%	55.4%	54.8%
Quality of Compost - Number of Breaches**	0	0	0	0
Quantity of Recyclable Packaging ***	1.2%	1.8%	1.8%	1.6%
Health and Safety - Number of LTI's	0	0	0	0
Community Acceptance - Number of Complaints ****	0	0	0	0
Project Culture - PAG Chairperson Score	100%	100%	100%	100%

^{*} The Target Availability during the Initial Operating Period is to achieve an Availability of greater than 95% over a six-month period.

^{**} The compost standard within the RRFA was amended by the revisions to the RRFA approved by Council at its meeting of 6 December 2012 and signed under common seal in May 2013.

^{***} Financial impacts of the KPI were removed by the revisions to the RRFA approved by Council at its meeting of 6 December 2012 and signed under common seal in May 2013. Ferrous diversion has recommenced.

^{****} Numerous complaints relating to a single event are treated as a single complaint. Biofilter odour is not registered as a complaint as this is seen as a normal operating odour condition.

Waste Diversion

The average waste diversion for the past six months (July 2018 to December 2018) has been 55.6%.



Project Advisory Group (PAG)

MRC Representatives:

Cr Frank Cvitan Gunther Hoppe (CEO) Andrea Slater (DCS) Cr Russel Driver (alternative)

BioVision Representatives:

Craig Barker
Daniel van Veen
Frank Sciarrone
Alan Turner
Emmanuel Vivant
Ian Hunter (alternative)

Chairperson:

lan Watkins

The PAG last met on 19 December 2018.

Items dealt with by the group included:

- Recent scheduled maintenance update
- BioVision Monthly Report/Update
- FOGO Trial
- KPI's

Copies of the meeting minutes are distributed to the Strategic Working Group members and all MRC Councillors following the meetings.

FINANCIAL IMPLICATIONS

Operational Expenditure

The Project Operational Summary below sets out the 2018/19 facility operating budget against which operational costs are tracked throughout the year. The variance over budget is as a result of the additional tonnes put through the facility during the year.

Project Operational Costs Summary for 2018/19 Financial Year – for the period ended 31 December 2018

OPERATING STATEMENT For the month ended 31 December 2018

Description	Adopted Budget	YTD Budget	YTD Actual	\$ Remaining Bal of Budget	% Balance	Note
Resource Recovery Facility Operating Expenditure Employee Costs						
Salaries	_	_	_	_		
Allowances	-	-	-	-		
Workers Compensation Premium	-	-	-	-		
Consultants and Contract Labour	-	-	-	-		
Consultancy	-	-	3,015	(3,015)		
Contract Labour External	-	-	<u> </u>	-		
0.65		-	3,015	(3,015)		
Office Expenses Cleaning of Buildings						
General cleaning (Enviro Care)	10,600	5,298	5,978	4,622	43.60%	
Window cleaning	2,000	816	-	2,000	100.00%	
Information System Expenses	12,600	6,114	5,978	6,622	52.56%	
Computer System Maintenance						
ICT contractors costs	2,000	-	-	2,000	100.00%	
Newcastle Weighing Services-Gen Maintenance	11,500	5,748	5,213	6,288	54.67%	
Vertical Telecom P/L-Maint of Microwave Ant	6,000 19,500	3,000 8,748	2,610 7,823	3,390 11,677	56.49% 59.88%	
Building Maintenance	10,000	0,1.10	.,020	,	00.0070	
Building Maintenance			==:		04 =00:	
Airconditioning Maintenance Community Education Centre	3,000 2,000	554 2.000	554 2.646	2,446 (646)	81.53% (32.31%)	
Weighbridge and Calibration	7,500	220	220	7,280	97.07%	
Building Security						
Security - Monitoring	-	-	-	-		
Security - Alarm maintenance Security - call out	-	-	-	-		
oun out	12,500	2,774	3,420	9,080	72.64%	
RRF Operation Expenses						
Fencing and Gate Maintenance Fencing and Gate Maintenance	9,000	500	500	8,500	94.44%	
Repair of Boom Gate	9,000	-	-	-	34.4470	
Road Maintenance	5,000	-	-	5,000	100.00%	
Bores and Pipework	4.500	4.000	4 000	0.440	70.450/	
Bore maint/calibration/electronics Groundwater sampling	4,500 2,500	1,060 2,500	1,060 3,801	3,440 (1,301)	76.45% (52.04%)	
Bacteria sampling	1,000	-,	-	1,000	100.00%	
Vermin control	500	-	-	500	100.00%	
Spills/leaks/incident management	500	-	-	500	100.00%	
Vehicle Wash Facility Operations Landscaping and Gardens	6,000	700	700	5,300	88.33%	
Compost Disposal	433,500	226,561	226,561	206,939	47.74%	
Contractor's Fees	28,338,000	14,395,704	14,814,027	13,523,973	47.72%	
RRF Maintenance Funding	250,000 29,050,500	14,627,025	15,046,649	250,000 14,003,851	100.00% 48.21%	
Utilities	23,030,300	14,027,023	13,040,043	14,003,031	40.21/6	
Electricity	15,800	1,260	2,520	13,280	84.05%	
Rates	108,894	54,447	53,519	55,375	50.85%	
Insurance	124,694	55,707	56,039	68,655	55.06%	
Municipal Property Insurance	3,500	1,750	1,760	1,740	49.72%	
Public Liability Insurance	5,650	2,824	2,661	2,989	52.90%	
Cost of Borrowings	9,150	4,574	4,421	4,729	51.69%	
Interest on Loans						
Loan 10A	56,088	29,173	29,172	26,916	47.99%	
Loan Expenses	- FC 000	- 20 472	- 20 472	- 20 040	47.00%	
Amortisations	56,088	29,173	29,172	26,916	47.99%	
Amortisation Pre-operating Costs	104,784	52,392	81,109	23,675	22.59%	
Amortisation Costs	358,007	179,003	201,024	156,983	43.85%	
	462,791	231,395	282,133	180,658	39.04%	
Depreciation						
Depreciation on Building	25,124	12,560	155,567	(130,443)		
Depreciation on Infrastructure	26,697	13,347	168,822	(142,125)	(532.36%)	
	51,821	25,907	324,389	(272,568)	(525.98%)	
Total Operating Expenditure	29,799,644	14,991,417	15,763,040	14,178,729	47.58%	
Net Total	(29,799,644)	(14,991,417)	(15,763,040)	(14,178,729)	47.58%	

COMMUNICATIONS AND EDUCATION UPDATE REPORT



Communications and Education Report

November and December 2018

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1. Introduction

The Mindarie Regional Council's (MRC) Education Team's focus is on Winning Back Waste through community engagement within the region. The main objectives are to:

- act as an advocate for waste behaviour change at all levels,
- improve community awareness and understanding of waste issues,
- encourage a reduce, reuse, recycle and dispose wisely ethos and behaviours associated with this,
- encourage engagement on many levels to have waste dealt with as high on the waste hierarchy as is practicable,
- promote infrastructure solutions as integral to the aim of diverting waste from landfill.

This is largely done through the provision of:

- a Regional community engagement and waste education campaign, Face Your Waste
- the Earth Carer community outreach program,
- facility tours,
- visits to schools and community groups to deliver workshops and talks,
- displays within the community (including shopping centres, libraries, fairs and events),
- messaging through a broad range of communications and advertising channels, and
- special projects/programs to facilitate greater community participation in recycling and waste disposal initiatives.

The Team works closely with:

- the Member Councils through the region's Waste Education Strategic Steering Group (WESSG) to support the councils by assisting them in delivering their waste messages and in providing programs to enable improved recycling and waste disposal outcomes to the community, and,
- the State and National Waste Educator Groups (WMAA-WA WEWG / WENG and NWED) which include representatives from the other Regional Councils, Local Governments, WALGA, Waste Wise Schools, KABWA, Waste Authority and a variety of other members (government/community/business) interested in waste issues.



The MRC recognises that waste has a value as a resource and is committed to managing waste in line with the waste hierarchy and diverting waste from landfill.



This report will look to summarise MRC's education activity for the period of November and December 2018, another two very busy months for the Team.

2. Strategic Projects

2.1 Face Your Waste

Regional Education Campaign to engage with and improve the community's awareness of waste and waste issues and drive behavioural change.





April saw the Face Your Waste campaign launched. The central engagement piece was 20 clear bins to be deployed around the suburbs to get people to see their waste and to act as conversation starters...and that they did.

In support was a number of advertising channels used, outdoor, print and digital media, to promote the campaign. This to engage and capture peoples interest then direct them to a dedicated Face Your Waste website, www.faceyourwaste.com.au, and social media platforms to gain further information, education and tips on how to change behaviour.

Six months into the Face Your Waste campaign and the response has been outstanding. The first year being the engagement phase, getting people interested in waste and this is definitely happening.

The clear bins are very much the face of the campaign; we knew we had something special with everyone getting very excited by them. The campaign has already exceeded expectations, gaining considerable local and worldwide attention.

The growth of the campaign is very much limited by the funding available; the number of bins produced; support able to be given to interested parties and in producing the supporting media campaign.

Engagement has included:

- Over 350 Bin ambassadors registering (3 years' worth)
- Councils Perth, WA country, interstate and international wanting to be involved
- Businesses/organisations/schools see FYW and the clear bins as a way they can promote waste initiatives

 Huge social media interest. Early September a post featuring the clear bins was the 7th most popular on internet according to Reddit with 40,000 upvotes. This has continued with the hugely popular Famous Sharron campaign.

Media interest has included major TV, print, radio media outlets:

- Community newspapers
- Channel 7 and 9
- ABC radio (interviews conducted in every State)

The Campaign has reached 2 million people with 300,000 impressions on Facebook alone. Everyone wants to talk about FYW, the clear bins especially. Engagement is what we wanted and we are achieving that.

The clear bins though have also shown themselves to be significant drivers of good waste behaviours. Everywhere the bins have been located have seen people taking care and actively trying to sort waste into the right bin. Responses have also included people looking at their waste and making conscious decisions to purchase differently. Positive results for the campaign moving forward.

November/December



Face Your Waste won the award, Waste Innovation of the Year, at the **Infinity Awards**, the annual waste industry awards held by the Waste Authority

.



Face Your Waste also won 6 awards (one Silver and five Bronze) at the **Skull Awards**, Perth Advertising and Design Awards, for the campaign concept, radio adverts and the clear bins as a promotional concept.



FYW advertising greeted motorists on the new **electronic billboard** on the Mitchell Freeway in Greenwood. This advert was one of the six adverts shown during the first two weeks of the billboards operation.

Famous Sharon – the Face of WA and now the new Face of Waste, has been engaged by Face Your Waste to promote waste messages into the community.



The campaign featuring Famous Sharron, to maintain engagement with the public, includes cinema and shopping centre advertising in centres throughout the region over the Christmas/New Year period. Along with social media postings, assorted print advertising and segments placed on the Face Your Waste website.

Ten new **140litre clear red top bins** have arrived. Face Your Waste now has the 4 clear bin set, red/yellow/lime green/dark green - **sorting your waste is now even clearer**.



The clear bins moved back to the ToVP with bin ambassadors having green and yellow lid pairs of bins for a month. This to give the residents a number of bin collections to observe their waste and make changes to what they purchase and throw out.

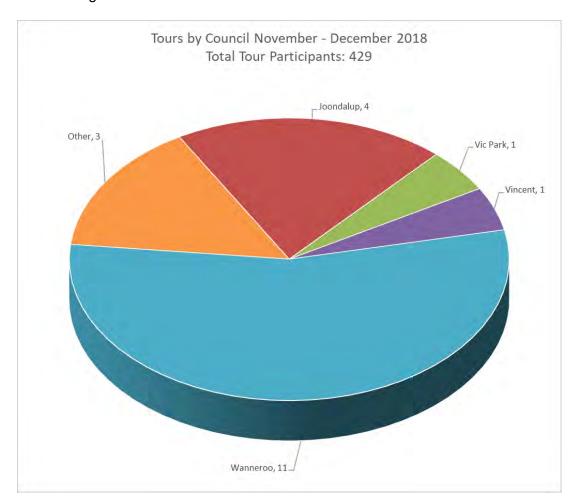
Over the Christmas New Year Period some of the bins were deployed at the Icecream Factory entertainment venue in Northbridge targeting party goers and plant the seed to face their waste.

3. Community Engagement

3.1 Tours

The tours of the MRC facilities (Tamala Park and Resource Recovery Facility) are run on request Monday to Saturday and are popular with people of all age groups and from all walks of life. The duration of each tour ranges from one to three hours depending on the requirement of the group attending.

During November and December 20 tours took place with 429 people viewing the facilities and learning about how we deal with waste.



Groups on tour: Family Group, City of Joondalup Customer Service staff, National Recycling community tour, Belridge Education support centre, East Victoria Park Education Support Centre, Kyilla Primary School, St Anthony's School, Merriwa Primary School, Hocking Primary School, Wanneroo Primary School, Butler College Special needs, Wanneroo Primary School, Tapping Primary School, Honourable **Stephen Dawson** MLC. Minister for Environment; Disability Services; Electoral Affairs Tour



TOURS BY GROUP	
	Number
Business	1
Community	3
Schools	16
Tertiary	0
TOTAL	20

Of these tours 19 visited Tamala Park and 1 visited the RRF.

The feedback given about these tours continues to report a high level of participant satisfaction with them being described as very informative. The tours don't just point out operational aspects of the sites but discuss the 'story of waste', engaging people in how the Waste Hierarchy works and discuss behaviours that create the best outcomes. People are continually amazed at how a 'trip to the tip' can be such an eye opener and be very enjoyable.



Please rate our service today



3.2 Visits, Talks & Workshops

Talks and visits to community groups is also a focus of the MRC education team.

The duration of the sessions ranges from an hour through to a full day and, in the case of schools, may be for single classes or for the whole school.

During November/December the Education Team made 23 visits.

VISITS/TALKS	
	Number
Cambridge	2
Joondalup	3
Perth	0
Stirling	8
Vic Park	2
Vincent	0
Wanneroo	8
Other	0
TOTAL	23

The topics of these talks and visits vary according to the group but the sessions mainly focus on three main areas:

- Organics composting and worm farming
- The bin system what goes in what bin
- Waste Hierarchy reduce, reuse, recycle and dispose wisely.

TYPES OF TALKS		
	Number	
Battery assembly	0	
Composting, worms & gardens	11	
Nude Your Food	0	
Waste & recycling	11	
Waste Audit	1	
TOTAL	23	

Talks and visits to schools is a focus of the MRC education team. The MRC provides a number of services to enhance a school's curriculum, these include: tours, talks, workshops and activities can be tailored to meet the individual requirements of the school.

The MRC Education Team have continued to developing a closer working relationship with Waste Wise Schools with the purpose of delivering a broader and more consistent waste education program into schools throughout the region.

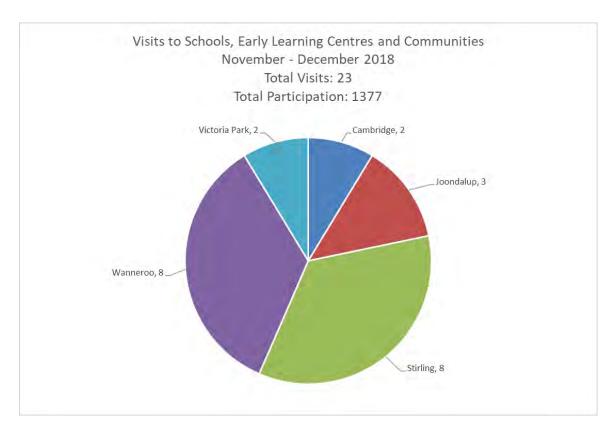


In 2018 the MRC is continuing to deliver the Waste Wise Schools program into MRC schools and advise how schools can become waste wise schools and access funds to assist with development of waste related projects. Through this partnership the Region's schools are being offered a superior waste education program with ongoing local support.

MRC is also continuing to assist the City of Stirling to promote their 3 bin system by targeting schools within the city and presenting talks/workshops to students, teachers and parents on 'what goes into what bin?' Students are all given take home material describing the 3 bin system in an effort to spread the message.



This partnership program between the City of Stirling and the MRC was a finalist in the Community Waste Award category at this year's Infinity Awards.



Name of schools visited: Dianella Primary College, Doubleview Primary School, East Butler Primary School, Holy Spirit School, Tapping Primary School, Two Rocks Primary School

Name of Early Learning Centres visited: Alkimos Beach Early Learning, Atlantis Yanchep, Connolly OSH club, Currambine kids care, Great beginnings, Happy Hands Early Learning Centre, Hillarys Community Kindergarten, Landsdale Early Learning and Enrichment, Piccolo Early Learning Centre, YMCA Westminster, Zigzags OSH

Name of Communities visited: Living Lightly and Low Waste Cleaning, APSI training, COS workshop, Sustainability for Seniors

Visits to Child Care/Early Learning Centres have increased in the last year with the Centres looking to enhance the environmental and sustainability education programs they do with the children.

These visits aim to not only foster an interest in waste for the youngsters but also to connect with educators and to a different parent group. Many of these visits discuss bin systems but often it is to set up and help maintain worm farms or composting systems to help the Centres deal with the organic waste that they produce.

3.3 Events and Displays

Events and displays are a means of delivering waste messages to large numbers of people and often broader audience many of whom when visiting community events find themselves engaging with the waste messaging.

September/October is the start of the event season with numerous events, fairs, fetes and shows being held throughout the region over the next few months.

ROAMING RECYCLER EVENTS		
	No Days Out	
Cambridge	3	
Joondalup	5	
Perth	0	
Stirling	2	
Vic Park	1	
Vincent	0	
Wanneroo	2	
Other	0	
TOTAL	13	

Name of Events: Wembley Primary School fete, The Colour Festival West Leederville, Light up Christmas Lights, North Woodvale Primary School Fete, Wembley Downs Primary School, Brighton Beach Scarborough, Vic Park Street Party, Spring Family Fun Day, Wanneroo Show and bin mascot appearances in support of CoJ 3-bin displays at Lakeside Joondalup and Twilight Markets.

The MRC bin mascots attended helping CoJ promote to residents the upcoming roll out of three bins into the city.



3.4 Earth Carers

The MRC community outreach program, Earth Carers, has been an itegral part of the education program. Earth Carers are seen as long term valued people interested in waste and spreading a 'Waste Less' message. Since 2008 over 520 people have completed the MRC Earth Carer training courses and most of them are still active, a good retention rate.

Two **training courses** are held each year, one in March and the other in August. On completion of the course the MRC Earth Carers continue to meet and engage with the community. A number of Earth Carers link in with Community Garden groups, Transition Towns and other groups of like minded people. These provide very fertile grounds for information exchange and promoting waste wise messages. The MRC maintains contact after the course, with Earth Carers assisting at events on an MRC stall, in schools, and through on going workshops we offer.

Earth Carers are regularly sent newsletters and emails full of stories and updates of Earth Carer activity, information about waste issues and tips on how to live with less waste.

A Facebook Page, **Earth Carers North**, provides a convenient forum for Earth Carers and others to exchange ideas and discuss the wonderful world of waste. This page was originally set up as an Advanced Earth Carer project. Earth Carers are very important ambassadors for a responsible waste message as they have credibility with friends and neighbours we could not hope to maintain. Over 770 followers currently engage with the Earth Carers North page.

To further keep the Earth Carer group engaged a variety of activities are held to enable Earth carers to network, up skill and learn new ways of living with less waste.



Earth Carer events that took place in this period were two workshops with Christmas approaching a Gift Making Day and a waste less Christmas get together. A total of 90 attendees came along

3.5 Community Engagement

A number of other have been used to communicate with the MRC community.

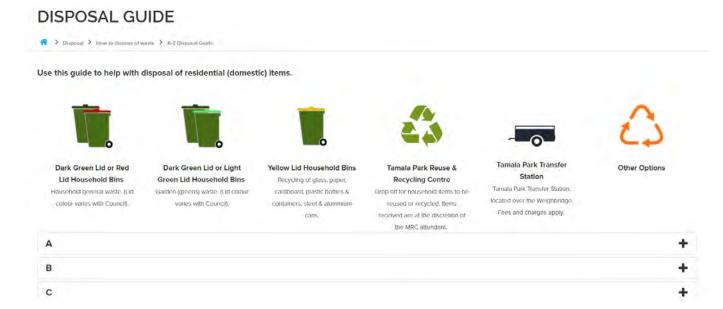
The **Pylon Sign** at the entrance to Tamala Park has been a very effective in conveying information to passing traffic about changes in opening hours and the services offered at Tamala Park.

Two Digiboards that were dropped off to be recycled have been refurbished and put to good use within the shop and at the weighbridge to advertise services to customers, to perhaps inform them of other services of which they were unaware.



An **A – Z disposal guide** has been placed on the MRC website to provide a comprehensive guide of where residents across the region can dispose of an extensive range of items. This guide is continually being updated and can be found at:

https://www.mrc.wa.gov.au/Waste-Disposal-recycling/Disposal-guide/A-Z-Disposal-Guide



The new shop has now been opened for a few months with a change of opening hours. To inform residents of this a series of **Reuse shop adverts** had been placed in the local newspapers to good effect encouraging both old and new customers to come in for a look.



The **Tamala Park News** is a newsletter regularly produced to update residents surrounding Tamala Park on happenings occurring onsite. This to help promote a closer relationship.



AMALA PARK NEWS



REUSE SHOP

Giving quality reusable items a second chance.

The new bigger shop is now open 7 days a week, 9am - 4pm.

Come in, have a look around and grab a bargain.

Why not buy reused gifts for Christmas?

Cleaning up over the holidays, have items that are in good order, but you just don't want them anymore? Bring them in.

REDUCING - waste going to landfill

Members of the public can drop off recyclables and reuse items seven days a week, 8am to 4.45pm.

Save time and money and make it easier to off load items by sorting your things before you arrive.

HOUSEHOLD HAZARDOUS WASTE - can be dropped off for free by residents for safe disposal

This includes paints, batteries, cleaners, solvents, pesticides and any other chemicals you have in your home and shed.

Be safe, only bring 20 litres or 20kg of a product at any one time.

FEES and CHARGES

Dropping things off for reuse and recycling is free (at the discretion of the attendant).

There is a \$17 minimum charge for disposing of other waste which isn't reusable or recyclable and is taken across the weighbridge. Visit the MRC website for a full list of Fees and Charges.

The Tamala Park News, keeping the community informed of what is happening at the Waste Management Facility here at Tamala Park.

MINIMAL EXPOSED WASTE

Tamala Park is seen as an industry best practice landfill facility. It is a large landfill, but it only has a small working face in operation at any one time. This is covered daily which makes it easier for us to control odour, litter and vermin.

Based on the current waste volumes being delivered to Tamala Park the landfill is expected to be full by 2028. However, if waste volumes reduce the life of the landfill may be extended.

LITTER - is contained onsite through the use of litter fences and the covering of waste with crushed limestone. Litter pickers are also used onsite to remove any excess windblown litter.

DUST - is minimised from operational areas with the majority of traffic on site using sealed roads. A water cart operates onsite and dust suppressants including Dustex (tree sap) are applied to the limestone to fix it together and reduce dust.

ODOUR - waste does smell, but things are done to actively minimise the odour including: limited waste deliveries are accepted over night; rubbish is covered with limestone or tarpaulins daily; water retention on landfill is minimised; and, disturbing old buried waste is avoided. Odour neutralisers are in use and an independent odour review is currently being undertaken.

PROTECTING THE GROUNDWATER

200

The MRC has groundwater monitoring wells drilled around the perimeter of Tamala Park, as well in the area immediately to the north of its boundary. The MRC closely monitors the groundwater as a regular part of its environmental operations and water quality samples are taken and tested regularly by the CSIRO.

Currently there are no adverse effects on the groundwater flowing through the areas surrounding Tamala Park as a result of the landfilling activity. The MRC works closely with the Department of Water and Environmental Regulation (DWER) and Water Corporation WA to ensure that this continues to be the case both now and into the future.

ELECTRICITY PRODUCTION

A new 6th engine has been added to the onsite landfill gas power station.

Gas from around the site is captured and used for the generation of electricity which is fed into the Western Power grid. This helps the MRC deal with methane gas production and odours emitted from the landfill.





Much of the undeveloped area at Tamala Park is "Bush Forever" and contains significant flora and fauna species. The protected natural flora and fauna on the site are flourishing.

The site is also an important feeding ground for migrating Black Cockatoos.

Prescribed burns and fire breaks are

used for bushfire control.

PROBLEM WILDLIFE - In and around Tamala Park

Millipedes are found throughout Perth and are on the move in Catalina, attracted by the lights. Millipedes come out after significant rainfall events. You can reduce the millipedes around your house by turning off front lights, using solar light traps and removing dead organic matter from around the home.

Approximately 1,000 Ibis birds visit the landfill daily typically resting and roosting on site. They have an environmental impact, such as an increase in nutrient loading in the soil and displacing local roosting animals. The MRC has a "License to Scare" issued by DWER for the landfill (e.g. sound cannon, kites, active scaring).

To stop feral animals and vermin from becoming pests in surrounding areas an ongoing pest control program exists for mice/rats, cockroaches etc. Culling of Rabbits and foxes also takes place along with bi-monthly cat trapping. All caught cats are removed from the area and taken to the local vet.

OPEN DAY-Tamala Park annual event is held every year, come along and join the fun and take a close up look at what work is being done on site. Our next Open Day is planned for May 2019.









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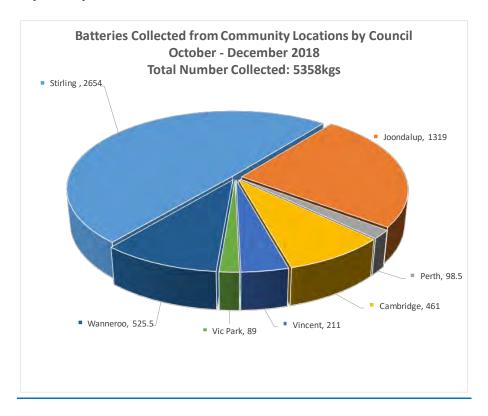
4. Community Programs

4.1 Battery Program

Batteries from school and community bins continued to be collected in large numbers. Importantly most of these batteries previously would have gone into the household green top wheelie-bin then to the RRF and the chemicals contained within ultimately into the compost. However large quantities of batteries are bought and disposed of and although the MRC is collecting and recycling tonnes of batteries it is only the tip of the iceberg.

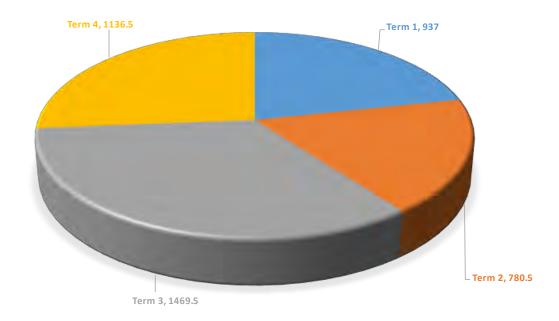
The battery program is particularly inportant to MRC operations in that batteries have shown themselves to be the cause of many of the landfill fires at Tamala Park and they are still a significant problem at the RRF – providing a source of metals contamination.

Figures presented here are for the first quarter (Octoberto December) 2018/19 collection from community battery bins.



Currently 156 schools in the region take part in the battery program with about a third of those joining the program from the City of Stirling in Term 3. The schools find it is a good way to engage students in a meaningful recycling program. From an MRC point of view it offers collection sites throughout the community and unlike the public battery collection bins the school ones are generally free of contamination.

Schools Termly Battery Collections for 2018 Yearly total: 4323.5 kg





The following is the MRC School Battery Program's top 50 schools for 2018 after the first three Terms. A full list of all participating schools and their ranking can be found on the MRC website.

MRC School Battery Program - League Table

Total Batteries collected by Schools (kgs),

Terms 1 - 4 2018

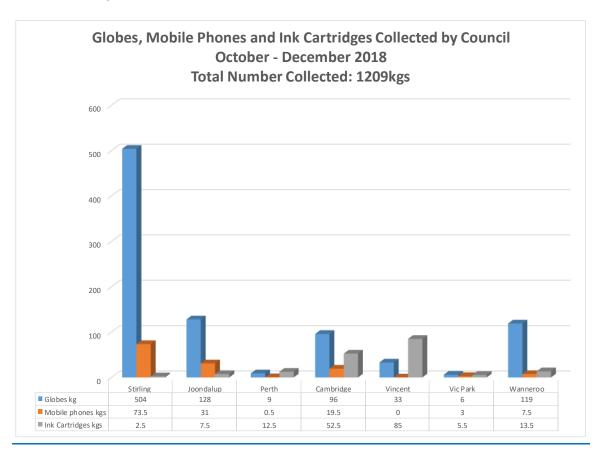
Rank	Place	Term 1	Term 2	Term 3	Term 4	Total
1	Sorrento Primary School	64	41	109	175	389
2	St Mark's Anglican Community School	165	1	2	4	172
3	Kinross Primary School	0	70	53	16	139
4	Peter Moyes Anglican Community College	25	22	25	43	115
5	Mullaloo Beach Primary School	33	34	26	12	105
6	Mercy College	40	28	17	19	104
7	Ashdale Primary School	27	38	15	15	95
8	Greenwood Primary School	32	20	23	16	91
9	Hillarys Primary School	24	13	18	22	77
10	Marmion Primary School	7	6	32	26	71
11	Joondalup Education Support Centre	18	9	19	24	70
12	Pearsall Primary School	18	15	12	25	70
13	East Butler Primary School	9	28	15	14	66
14	Wembley Primary School	0	8	56	2	66
15	Our Lady of Grace Primary School	0	0	42	23	65
16	Mount Hawthorn Primary School	28	17	10	9	64
17	Halidon Primary School	16	18	12	16	62
18	Mullaloo Heights Primary School	22	11	22	7	62
19	Woodlands Primary School	0	0	49	11	60
20	North Morley Primary School	0	0	39	20	59
21	Carramar Primary School	20	19	12	6	57
22	North Woodvale Primary School	11	20	12	12	55
23	Chrysalis Montessori School	0	0	12	41	53
24	West Morley Primary School	0	0	47	0.5	47.5

25	Dalmain Primary School	23	8	4	7	42
26	Karrinyup Primary School	0	0	38	4	42
27	St Mary's Anglican Girls' Senior School	0	0	40	1	41
28	Lake Joondalup Baptist College	6	15	10	9	40
29	Madeley Primary School	7	22	6	5	40
30	Craigie Heights Primary School	16	9	8	6	39
31	Mindarie Senior College	13	14	8	4	39
32	Quinns Rocks Primary School	13	12	0	14	39
33	North Beach Primary School	0	0	25	13	38
34	West Balcatta Primary School	0	0	27	11	38
35	Mt Lawley Primary School	0	0	18	19	37
36	Sacred Heart College	15	0	16	6	37
37	Lake Gwelup Primary School	0	0	19	17	36
38	Tapping Primary School	7	16	3	9	35
39	Glengarry Primary School	8	5	13	8	34
40	Duncraig Primary School	15	0.5	17	1	33.5
41	St Anthony's School	4	9	13	7	33
42	Poynter Primary School	11	6	9	6	32
43	Al-Hidayah Islamic School	0.5	13	11	6	30.5
44	Quinns Baptist College	8	14	1	7	30
45	West Leederville Primary School	0.5	3	7	19	29.5
46	Edgewater Primary School	10	9	5	5	29
47	Padbury Catholic Primary School	0	11	12	6	29
48	Aranmore Primary School	8	6	6	8	28
49	Holy Spirit Primary School	13	7	3	4	27
50	Kingsway Christian College	12	5	5	5	27

Note: During the first two Terms of the school year the City of Stirling still operated its own school battery program and their figures are not included here.

4.2 Other Community Recycling Programs

In addition to dry cell batteries there are a number of community recycling stations located throughout the region. These collect a range of problematic wastes, common household products that can't be disposed on in residential bins, like fluorescent globes, mobile phones and ink cartridges.



5. Waste Educator Groups

5.1 Waste Education Strategic Steering Group (WESSG)

The Waste Education Strategic Steering Group (WESSG) meets at the end of each month. A meeting to wrap up the year was held in November.

These meetings continue to be an important forum for exchanging ideas and keeping everyone updated on happenings associated with waste within the MRC and its Member Councils. The main issues discussed in this period were:

- 3 bin systems, implementation
- FOGO
- Yellow lid recycling, consistent messaging

The Group has been invaluable in providing networking opportunity for its participants. People aren't confined to council boundaries so being aware of what is happening elsewhere is important in delivering messages to the community

The importance of Regional messaging remains on the agenda as does the Groups role in dealing with regional waste issues. Many events and activities within the Region occur regularly with WESSG playing an important role in streamlining communications, messaging

and coordination between both the MRC and the Member Councils and the Member Councils themselves. These include:

- Plastic Free July
- Garage Sale Trail
- Recycling Week

The MRC also attends events in support of and/or on behalf of member councils. With displays at these events, shows, fairs within the different member council areas it is important that MRC education staff are informed of the different councils waste issues to ensure accurate information is passed onto residents.

The monthly meetings saw discussions on MRC's strategic direction and included how the 'Face Your Waste' campaign fits in with this. These discussions included looking how this campaign could be used within individual councils and how it aligned with council waste management/minimisation plans. The Group provided both content and feedback on elements of the campaign.

The MRC and City of Vincent have formed a partnership with Central TAFE, where media students are producing, with the full backing of TAFE resources, video segments to support and be used in the Face Your Waste campaign. Eight groups have presented concepts to be developed as part of their course as the year progresses.



5.2 Waste Educators Working Group & Networking Groups (WEWG/WENG)

Meetings were held at the end of each month. Apart from providing networking opportunities and the sharing of resources and ideas, topics of discussion included:

- State Waste Strategy
- Plastic Bag Ban
- Yellow lid recycling consistent communications
- Container Deposit Scheme
- Face Your Waste
- Perth Royal Show

Brief activity reports from those in attendance are also made, this giving the group a good overview of what is happening in the waste education field across the State.