

## Who is EMRC?

The Eastern Metropolitan Regional Council (EMRC) is a regional local government comprised of the Town of Bassendean, City of Bayswater, City of Belmont, Shire of Kalamunda, Shire of Mundaring and City of Swan.

EMRC is a local government organisation that works together with the member Councils to provide economies of scale for services that are applicable to the whole Region.

Whilst the original function of EMRC was to provide large scale waste management and disposal services in Perth's Eastern Region, this was

extended to include services in environmental management, regional development, and risk management.

EMRC is a model of successful collaboration that has initiated projects that deliver real benefits to the region.

## The 4 R's – Reduce, Reuse, Recycle and Recover

EMRC takes an integrated approach to waste management and actively promotes the 4R's of Reduce, Reuse, Recycle and Recover waste.

While the Resource Recovery Project is aimed at one of the 4R's - Recover - the EMRC is very busy year-round educating residents and businesses on ways they can Reduce, Reuse and Recycle.

Some of EMRC's waste education initiatives and programs include:

- Production of the Waste and Recycling Guide on behalf of its six member Councils
- Household Hazardous Waste disposal days

- Fluorescent light collection & recycling program
- School and household battery recycling program
- School mobile phone recycling - (MobileMuster)
- Primary and high school waste education projects
- Earth Carers training program
- Tours of Red Hill Waste Management Facility
- Talks to community groups, seniors and schools

## Communicating with You

We want to keep you informed about what's happening with the Resource Recovery Project.

We will do this via updates on our website, in a regular column in your local newspaper, and by this newsletter which will be published quarterly.

If you would like to receive a printed copy of the quarterly newsletter in the future, please call us on (08) 9424 2222.

If you would like to receive the newsletter and future updates electronically to save on paper (and waste!), we'll happily oblige. Just send an email to us at

mail@rgang.org.au with 'RRP update' in the subject line.

The added advantage of electronic updates is that we can also let you know about developments as they happen; so as well as saving valuable resources you can get updates on a regular basis.

We won't pass your details on to any other organisation or use them for any other purpose than communicating with you about EMRC's work in your community.

## Contact

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# RESOURCE RECOVERY UPDATE



In partnership with its six member Councils the Eastern Metropolitan Regional Council (EMRC) is working to develop a more sustainable solution to managing waste in Perth's Eastern Region.

## Creating sustainable alternatives to landfill

EMRC is responsible for the efficient and cost-effective disposal of about 350,000 tonnes of waste generated each year by the 300,000 residents and businesses in the Town of Bassendean, Cities of Bayswater, Belmont and Swan, and the Shires of Kalamunda and Mundaring, plus commercial customers.

The majority of this waste is sent to landfill at the best practice Red Hill Waste Management Facility, which EMRC has owned and operated since 1983.

A Landfill Gas & Power electricity generation plant is located at Red Hill which extracts methane gas from the landfill and converts it into safe, clean renewable energy which is fed back into the electricity grid. The recovery of this energy is enough to power around 2500-3000 households each year.

While the capture of landfill gas is a positive step towards reducing the impact of waste, EMRC is working on developing a long-term, environmentally sustainable solution to waste management for Perth's Eastern Region.

A solution that sees waste as a valuable resource rather than something to be buried in landfill.

## Waste is an important resource

By using modern alternative waste treatment technologies, we can now turn household waste into valuable products such as compost and/or energy. This is done in what we call a resource recovery facility.

Resource recovery is concerned with the waste left over in your rubbish bins after you have reduced, re-used and recycled your waste.

It has the potential to divert between \*75 - 90% of waste from landfill and reduce greenhouse gas emissions by \*\*100-125% compared to landfill. It also has many other environmental, economic and social benefits.

Above all, resource recovery provides a more sustainable solution to the management of waste.

\*Figures supplied by Cardno (WA) Pty Ltd September 2009.  
\*\*Taking into account emission reductions from coal-fired power generation.

## What is the Resource Recovery Project?

For several years, EMRC and its member Councils have been working towards having a fully operational resource recovery solution. This would involve a resource recovery facility and/or resource recovery park.

A resource recovery facility will use an alternative waste treatment technology to turn waste into compost and/or energy. This will be a state-of-the-art waste processing facility which will represent best practice in waste processing.

Useful products from a resource recovery facility are:

- Compost / soil conditioner & fertiliser
- Electricity and heat
- Solid fuel, liquid fuel, gaseous fuel

The project may also include the development of a resource recovery park.

A resource recovery park would house a number of facilities designed to receive, store, process, repair and dismantle discarded materials with the goal of selling them – either for reuse in industry or directly back to the public.

Useful products from resource recovery parks are:

- Recyclables
- Repaired or refurbished goods for resale
- Building materials/hardware/household goods
- Compost/mulch

The diagram below shows where your household waste could go with a resource recovery solution in place:



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Protecting Perth's Eastern Region

## What are the benefits of Resource Recovery?

### Environmental

- ✓ It can reduce waste to landfill by \*75-90%
  - ✓ It can reduce greenhouse gas emissions by \*\*100-125% compared to landfill
  - ✓ It minimises surface and groundwater contamination
  - ✓ It minimises odour, dust, noise, litter
  - ✓ It minimises impacts on flora and fauna
- \*Figures supplied by Cardno (WA) Pty Ltd September 2009.  
\*\*Taking into account emission reductions from coal-fired power generation.*

### Economic

- ✓ It turns waste into valuable products such as compost and/or energy
- ✓ It will extend the life of the landfill at Red Hill
- ✓ It reduces the cost impact of the increasing State landfill levy
- ✓ It will reduce the cost impact of the Federal Carbon Pollution Reduction Scheme
- ✓ It will pre-empt the impact of possible future legislation that may make the treatment of municipal solid waste (household and green waste) compulsory before going to landfill

### Social

- ✓ It supports community interest in the need to reduce the environmental impact of waste
- ✓ It will create local employment opportunities
- ✓ It will facilitate investment in major infrastructure

## What work has been done so far?

EMRC's initial focus with the project is on the planning and development of the Resource Recovery Facility.

So far EMRC has undertaken:

- Several years of planning and analysis;
- Research on the technology and site options, and waste collection systems;
- Community surveys, forums, and workshops - including a recent survey to provide a snapshot of community views about the possible sites and technology options under consideration; and
- A recent Expressions of Interest process.

## Why did EMRC call for Expressions of Interest?

EMRC recently called for Expressions of Interest to identify acceptable respondents for when tenders are anticipated to be called in 2011. The Expressions of Interest also provided important information to assist with the analysis of preferred options for site, technology, ownership model and waste collection system.

### What Expressions of Interest criteria did the technology providers have to meet?

Each submission was evaluated against 26 criteria set out in the Expression of Interest documents and covering mandatory criteria (performance of the process, maturity of the technology and respondents track record) and environmental, technical, corporate, social and financial criteria.

*For a copy of the full selection criteria visit our website at [www.rgang.org.au](http://www.rgang.org.au).*

## What decisions have been made?

At this stage no final decisions have been made on the site, technology, ownership model or waste collection system for the Resource Recovery Facility.

No spending commitments have been made by any of EMRC's six member Councils in respect of the Resource Recovery Facility.

EMRC and its member Councils are pursuing a carefully planned process to ensure they make the best decisions for the region.

## Where will the facility be located?

### The final site has not yet been decided.

It is anticipated that Council will select a preferred site after having considered all of the information gathered through the recent Expressions of Interest process, project financial analysis, and input from the community and other stakeholders.

The two site options both owned by EMRC are:

- Red Hill Waste Management Facility
- Hazelmere Recycling Facility

*For more information on sites under consideration, please go to our website at [www.rgang.org.au](http://www.rgang.org.au).*

## What type of waste will the facility treat?

**The Resource Recovery Facility will only be used to treat municipal solid waste (household rubbish and greenwaste). It will not be used to treat hazardous, toxic or high-risk waste.**

## What alternative waste treatment technology will be used?

### The preferred technology has not yet been decided.

Based on the extensive research and planning on the technology options available over the past several years, EMRC is considering five possible technology options for the Resource Recovery Facility:

1. Anaerobic Digestion
2. Gasification
3. Pyrolysis
4. Combustion
5. Plasma

EMRC anticipates deciding on the preferred technology(s) in March 2010 after considering all of the information gathered through the recent Expressions of Interest process.

EMRC may decide to choose more than one preferred technology, with the final decision not required to be made until after EMRC calls for tenders in approximately September 2011.

*Visit our website at [www.rgang.org.au](http://www.rgang.org.au) for more information on each of the technologies.*

## Will there be any environmental and health impacts?

While the decision has not yet been made on the technology, no matter which technology is finally chosen, EMRC will be looking to adopt best practice with the Resource Recovery Facility, as it has done with its Red Hill Waste Management Facility.

The health and well-being of the community and the environment are of utmost priority and the decisions are being taken very seriously. The facility will operate to strict environmental and health standards.

## What will the facility cost?

The cost of the facility will not be known until tenders are called for. An important decision also yet to be made is the ownership model for the project. There are two options being considered—Design & Construct (owned and operated by EMRC) and Build-Own-Operate (built, owned and operated by a third party) which will help to determine the cost impact of the facility to EMRC and its member Councils.

## How will the community be involved?

Since 2004 EMRC has been actively engaging with the community on the Resource Recovery Project.

Community input has been sought through a Waste Management Community Reference Group, community workshops, surveys and information sessions which have informed the decision process to date. Information on the project has also been made available to the public through newsletters, newspaper advertisements and on the R-Gang website. This will continue throughout the project.

Upcoming community engagement activities include:

### September 2009 - February 2010

- Updates in local newspapers, EMRC and R-Gang websites
- Letterbox drop to residents in surrounding area's of Red Hill and Hazelmere
- Ongoing Red Hill Community Liaison Group meetings
- Invitations to resident groups and associations for EMRC to present project briefings at their upcoming meetings

### March 2010 - Sept 2011

Continuing initiatives above, plus:

- Formation of a Community Advisory Group, comprised of members of the local community near the preferred site, which will be responsible for the development of a Community Partnership Agreement.
  - The Community Partnership Agreement aims to identify social issues associated with the facility and show how they will be addressed by EMRC and/or the operator.
  - The Agreement then forms part of the tender specifications and 'conditions' that the tenderer or the facility operator must comply with through the life of the project.
  - The issues may range from communications, rigorous quality control, transparent and open monitoring of issues, emissions, noise impacts, and safety.

## When will the decisions be made?

EMRC and its member Councils are pursuing a carefully planned process with the Resource Recovery Project to ensure they make informed decisions for the region.

Below is the anticipated timeline for the Resource Recovery Project:

September 2009 to February 2010	EMRC will consult with its member Councils and the community and seek their feedback on the information gathered through the recent Expressions of Interest process.
March 2010	EMRC anticipates selecting a preferred site, technology(s), ownership model and waste collection system for the Resource Recovery Facility. It will also decide whether to proceed with environmental and planning approvals for the preferred option(s).
April 2010 to September 2011	Environmental and planning approvals. Formation of a Community Advisory Group, comprised of members of the local community near the preferred site, which will be responsible for the development of a Community Partnership Agreement.
September 2011	After consultation with the member Councils and community, the EMRC will decide whether to proceed with the tender phase of the project.
September 2011 to September 2012	Tender phase.
October 2012	After consultation with the member Councils and the community, the EMRC will decide whether to accept a tender offer from the preferred tenderers and proceed with the construction of the facility.
October 2012 to August 2014	Construction and wet commissioning of the Resource Recovery Facility.
September 2014	Full commissioning of the Resource Recovery Facility.