

Report on the Community Forum on Waste - 18 September 2010





Executive Summary

The Eastern Metropolitan Regional Council (EMRC) has been working in partnership with its six member Councils for the past eight years to develop a resource recovery solution that will serve Perth's Eastern Region through the 21st century, with the objective to have a fully operational resource recovery solution in place by 2015. EMRC's Resource Recovery Project is consistent with the State Government's strategic direction for waste management in Western Australia and its 'Towards Zero Waste' vision.

Given that the Resource Recovery Project is likely to influence all aspects of waste management in Perth's Eastern Region, the EMRC has undertaken extensive research on the various technology options, household waste collection systems (one, two or three bins) and the different site options for the facility.

EMRC has also been actively engaging with the community in the Resource Recovery Project since 2005. Community input has been sought through a Waste Management Community Reference Group, community workshops, surveys and information sessions. Information on the project has also been made available through newsletters, newspapers advertisements and on the EMRC website.

In 2009 EMRC completed an Expression of Interest process, which enabled EMRC Council to make key decisions related to the acceptable technologies for the Resource Recovery Facility as well as the preferred site.

Following this EMRC Council established a Community Task Force (CTF) in mid 2010. The role of the CTF is to design a Community Partnership Agreement which will outline the community's expectations in relation to the development and operation of the Resource Recovery Facility.

The CTF members are:

1. Jan Foster-Hawking, Gidgegannup (0-1 km RHWMF);
2. Noelene Wigmore, Parkerville (0-1 km RHWMF);
3. Greg Jones, Stoneville (1-10 km RHWMF);
4. Noel Hales, Hazelmere (broader region);
5. Max Jamieson, Helena Valley (broader region);
6. Peter Jensen, Gidgegannup (broader region);
7. Peter Pearson, Bassendean (broader region); and
8. Martin Chape, Bellevue (1-10km RHWMF).
9. Stephen Fitzpatrick (Manager Project Development, EMRC)
10. Prapti Mehta (Manager Organisational Development, EMRC)

In order to assist the CTF in collecting information on the community's expectations in relation the Resource Recovery Facility, EMRC organised a Community Forum on Waste, and invited all residents living within Perth's Eastern Region to this.



The Community Forum on Waste was organised on 18 September 2010 at the Rosehill Lodge, West Parade, South Guildford from 12noon to 4.00 PM. The purpose of the Forum was for EMRC to:

- To update the community on the progress of the Resource Recovery Project
- To introduce the Community Task Force (CTF) and their role in the project
- To provide the community an opportunity to discuss concerns and desired benefits from the Resource Recovery Facility
- To provide the community an opportunity to review and comment on the draft tender evaluation criteria
- To identify elements for inclusion in the Community Partnership Agreement (CPA)

Approximately 75 people registered their interest in attending the forum and 61 people attended (refer Appendix 7.5 for list of attendees which includes some EMRC officers). This report details the outcomes of the Community Forum on Waste held on 18 September 2010, as part of the community engagement activities related to the Resource Recovery Project.



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1. Purpose

This report details the outcomes of the Community Forum on Waste held on 18 September 2010, as part of the Eastern Metropolitan Regional Council's community engagement activities related to the Resource Recovery Project.

2. Background

2.1 Resource Recovery Project

The Eastern Metropolitan Regional Council (EMRC) has been working in partnership with its six member Councils for the past eight years to develop a suitable resource recovery solution that will serve Perth's Eastern Region through the 21st century. The Resource Recovery Project will provide a sustainable and environmentally friendly solution to managing waste. Most importantly, it will be a solution where waste can be turned into valuable products such as compost or energy.

The EMRC's key objective is to have a fully operational resource recovery solution in place by 2015 which would involve a resource recovery facility and/or resource recovery park. The EMRC's Resource Recovery Project is consistent with the State Government's strategic direction for waste management in Western Australia and its 'Towards Zero Waste' vision.

2.2 Current Status

Given that this project is likely to influence all aspects of waste management in Perth's Eastern Region, the EMRC has undertaken extensive research on the various technology options, household waste collection systems (one, two or three bins) and the different site options for the facility.

In May 2009, the EMRC advertised for Expressions of Interest (EOI) in providing technology options for the Resource Recovery Project. The purpose of this process was to inform EMRC Council about the different technologies to guide their decision making process, and enable EMRC to select "acceptable tenderers". On 20 May 2010, Council resolved that:

"1. THE FOLLOWING OPTIONS ARE CONFIRMED AS THE PREFERRED OPTIONS FOR THE RESOURCE RECOVERY FACILITY:

- A) RED HILL WASTE MANAGEMENT FACILITY IS THE PREFERRED SITE FOR THE RRF.*
- B) THE DESIGN & CONSTRUCT CONTRACT OWNERSHIP MODEL IS PREFERRED TO A BUILD OWN OPERATE CONTRACT MODEL AT THIS STAGE OF THE PROJECT.*
- C) THE RRF TECHNOLOGY OPTIONS INCLUDE ANAEROBIC DIGESTION, GASIFICATION, PYROLYSIS AND COMBUSTION. PLASMA TECHNOLOGY WILL ONLY BE CONSIDERED IF IT IS AN INTEGRAL PART OF ONE OF THESE TECHNOLOGIES.*



D) A THIRD BIN FOR HOUSEHOLD ORGANIC WASTE COLLECTION BE CONSIDERED IN CONJUNCTION WITH ANAEROBIC DIGESTION TECHNOLOGY, OTHERWISE A TWO BIN SYSTEM IS RECOMMENDED FOR THE THERMAL TECHNOLOGY OPTIONS.

"2. COUNCIL PROCEEDS WITH THE ENVIRONMENTAL AND PLANNING APPROVALS TASK FOR THE RESOURCE RECOVERY PROJECT BASED ON THE PREFERRED SITE AND TECHNOLOGY OPTIONS."

3. Community Engagement

Since 2005, EMRC has been actively engaging with the community in the Resource Recovery Project. Community input has been sought through a Waste Management Community Reference Group, community workshops, surveys and information sessions. Information on the project has also been made available through newsletters, newspapers advertisements and on the EMRC website.

3.1 Engagement activities to date

Month/Year	Project Milestones	Community Engagement
2004	Technical assessment of alternative waste treatment	<ul style="list-style-type: none"> • Presentations to Council • Community briefings. • Waste Management Community Reference Group established
2005	Preliminary studies into waste systems & financial modelling	<ul style="list-style-type: none"> • Regional workshops
2006	Eastern states study tour	<ul style="list-style-type: none"> • Regional workshops
2007	Site evaluations & recovery options	
2008	<ul style="list-style-type: none"> • Further financial analysis • Technology evaluation • Study tour, Europe 	Mail out to eastern region Council briefings
2009	Expressions of Interest (EOI) process	<ul style="list-style-type: none"> • Formal qualitative research campaign (telephone survey & focus groups) • Community education & awareness campaign
April 2010	January 2010 tour of reference facilities	<ul style="list-style-type: none"> • Public seminar on thermal technologies
May 2010	Council decision to proceed with planned RRF and also preferred site	
July 2010	Environmental Approvals Process commences	<ul style="list-style-type: none"> • Door knocking campaign
August 2010	Site location study for Red Hill Waste Management Facility	<ul style="list-style-type: none"> • Community Task Force established
18 September 2010		<ul style="list-style-type: none"> • Community Forum on Waste



3.2 Community Task Force

A report was presented to Council on 20 May 2010 outlining the community engagement activities taken in relation to the Resource Recovery Project between September 2009 and April 2010. At that meeting Council resolved to:

“... NOTE THE PROGRESS OF THE RESOURCE RECOVERY PROJECT COMMUNITY ENGAGEMENT AND ENDORSE THE NEXT STAGE OF COMMUNITY INVOLVEMENT, NAMELY THE FORMATION OF A COMMUNITY TASKFORCE AND DEVELOPMENT OF A COMMUNITY PARTNERSHIP AGREEMENT.”

Fifteen nominations were received and following evaluation, eight community members and two EMRC staff were appointed to the Community Task Force (CTF). The CTF members are:

1. Jan Foster-Hawking, Gidgegannup (0-1 km RHWMF);
2. Noelene Wigmore, Parkerville (0-1 km RHWMF);
3. Greg Jones, Stoneville (1-10 km RHWMF);
4. Noel Hales, Hazelmere (broader region);
5. Max Jamieson, Helena Valley (broader region);
6. Peter Jensen, Gidgegannup (broader region);
7. Peter Pearson, Bassendean (broader region); and
8. Martin Chape, Bellevue (1-10km RHWMF).

The two EMRC representatives are the Manager Project Development and the Manager Organisational Development.

The CTF met for the first time on Tuesday 24 August 2010, to begin discussions regarding the development of a Community Partnership Agreement (CPA), which will outline the community's expectations in relation to the development and operation of the Resource Recovery Facility. At that meeting the CTF also discussed opportunities to collect community input into the CPA at the Community Forum organised on 18 September 2010, to hear first-hand the comments and concerns of community members.

4. Community Forum On waste

4.1 Purpose

The Community Forum on Waste was organised on 18 September 2010 at the Rosehill Lodge, West Parade, South Guildford from 12noon to 4.00 PM. The purpose of the Forum was for EMRC to:

- To update the community on the progress of the Resource Recovery Project
- To introduce the Community Task Force (CTF) and their role in the project



- To provide the community an opportunity to discuss concerns and desired benefits from the Resource Recovery Facility
- To provide the community an opportunity to review and comment on the draft tender evaluation criteria
- To identify elements for inclusion in the Community Partnership Agreement (CPA)

4.2 Participants

Residents in Perth's Eastern Region were invited to join in discussions with the Community Task Force at the Community Forum. The event was advertised through the six community newspapers in the region, letterbox drops of fliers around Red Hill and Gidgegannup and other areas, the EMRC website and a press release. Interested participants were requested to contact EMRC to register interest in attending the forum.

Residents were informed that the forum would provide people with an opportunity to discuss any concerns they may have over the proposed resource recovery facility and to provide direct input into the development of the Community Partnership Agreement (CPA).

Participants would also be provided with an opportunity to comment on the draft tender evaluation criteria which cover technical, environmental, social and financial aspects of the planned resource recovery facility.

Approximately 75 people registered their interest in attending the forum and 61 people attended (refer Appendix 7.5 for the list of attendees).

4.3 World café format

EMRC's Manager Organisational Development and Manager Projects designed the format for the Community Forum with the assistance of Dianna Vitasovic, Senior Associate from the AIM-UWA Business School Alliance. A "World Café" format was selected as this would enable participants to engage in open and creative conversation. They would be able to use their collective knowledge to share ideas with others as well as gain a deeper understanding of the issues involved.

During a World Café participants are required to be seated in a circle and the discussion is guided by facilitators. Participants discuss a key question for 5-10 minutes and then move to the next circle where they discuss another key question. The facilitator's role is to take notes and facilitate discussion in a manner where people are able to reflect and share thoughts, ideas, insights, issues and concerns on the topic. Participants move from table to table and this provides everyone with an opportunity to discuss all questions.

4.4 Forum design

The Forum was designed to provide people with an opportunity to discuss any concerns they may have over the proposed resource recovery facility and to provide direct input into the development of the Community Partnership Agreement (CPA).



It was agreed that it was important for participants to be provided with an opportunity to comment on the draft tender evaluation criteria which cover technical, environmental, social and financial aspects of the planned resource recovery facility.

Additionally, in acknowledgement that many participants may have little or no knowledge of the Resource Recovery Project, it was also decided that the Forum would also be used to educate the community on the Project, through presentations and displays (refer Appendix 7.2 for details).

A number of EMRC staff and others volunteered to act as table facilitators under the guidance of the main facilitator, Dianna Vitasovic.

4.5 Key questions

It was important to collect information required for:

- Development of the Community Partnership Agreement;
- Development of Tender Evaluation Criteria; and
- Ongoing Community Education activities in relation to the Resource Recovery Facility.

In order to do this, four key topics were selected as below:

Topic 1 Community Benefits of the Resource Recovery Facility

1.1 What benefits would you want the EMRC Resource Recovery facility to deliver for the community?

1.2 What characteristics of your community or neighbourhood would you like to preserve?

Topic 2 Draft Tender Evaluation Criteria for the Resource Recovery Facility

Participants were asked to consider the draft Tender Evaluation Criteria information that was available to them and respond to the following questions.

2.1 What other elements should be considered in the draft Tender Evaluation Criteria?

Topic 3 EMRC's Community Partnership Agreement (CPA)

Participants were asked to refer to the Mindarie Regional Council's CPA document. They were informed EMRC is keen to develop a Community Partnership Agreement with the community to ensure that the community's issues and concerns are understood and acted upon. The Community Partnership Agreement will be a summary document that will set the operational conditions for the Resource Recovery Facility at Red Hill. They were asked to respond to the following question.

3.1 What are some of the things that you would like to see in EMRC's Community Partnership Agreement?



Topic 4 Technology Options for the Resource Recovery Facility

EMRC used the Community Forum as an opportunity to assess the Community's understanding of the technologies in order to be able to design suitable community education material.

Participants were informed that EMRC has determined that four technology options for the Resource Recovery Facility are acceptable. The final technology selection would be made after completion of the tender process. They were also informed that Plasma technology would be considered only if it is in combination with one of the other technologies.

They were then asked to complete a worksheet which asked them to respond to four questions.

- 4.1 What are the benefits of each technology?
- 4.2 What are the disadvantages of each technology?
- 4.3 What are your concerns about each technology?
- 4.4 What would you like to know more about each technology?

4.1 Programme

The Community Forum commenced at 12.30 with a welcome by EMRC's Chairman, Cr Graham Pittaway OAM. Participants were then provided information on the Resource Recovery project, the technologies under consideration as well as the progress to date.

Following this participants were invited to walk around the room to look at the displays and ask questions. Each display had a facilitator standing next to it and their role was to provide information and respond to questions.

Community discussion commenced at 1.30 and concluded at 4.00.

The Agenda is at Appendix 7.1

5. Community Forum Outcomes

Notes from the Community have been themed under broad headings:

- Social
- Economic
- Environmental
- Legal
- Waste Management Systems.

Question 1 to 3 notes will be used by the Community Task Force to develop the Community Partnership Agreement. The notes from Question 4 will be used by EMRC for the purpose of community education.

The notes are at appendix 7.3.



6. Acknowledgements

EMRC thanks members of the Community Task Force for their commitment and the time they have volunteered in working towards development of a Community Partnership Agreement. EMRC also thanks and acknowledges all the community members who attended the Community Forum on Waste. Your contribution is valued

The assistance of the following EMRC staff and consultants is also acknowledged

1. Dianna Vitasovic – Senior Associate, AIM-UWA Business School Alliance
2. Stephen Fitzpatrick
3. Prapti Mehta
4. Gae Synnott – Consultant, Synnott Mulholland
5. Nicole Hayes
6. Samantha Robshaw
7. Melissa Mann
8. Bridgette Sara – helper
9. Carly Burwood
10. Roberta Circosta
11. Le Truong
12. Tania Wells
13. Delia Richardson
14. Rob Sim – Cardno BSD
15. John King – Cardno BSD
16. Rosehill Lodge staff



7. Appendices

7.1 Community Forum - Agenda

TIME	ITEM	COMMENTS
12.00- 12.20	REGISTRATION	Refreshments in the entry area
12.20 – 12.30	HOUSEKEEPING <ul style="list-style-type: none">• Participants guided to tables• Housekeeping	Dianna Vitasovic (Primary Facilitator)
12.30 – 12.50	PRELIMINARY MATTERS <ul style="list-style-type: none">• Welcome• The Resource Recovery Project: Journey and achievements	EMRC Chairman, Cr Graham Pittaway OAM Mr Stephen Fitzpatrick, Manager Projects, EMRC
12.50 – 1.00	Overview of afternoon's process	Dianna Vitasovic
1.00 – 1.30	INVITATION TO WALK, LISTEN AND LEARN	Participants to view displays
1.30 – 1.45	COMMUNITY DISCUSSION <ul style="list-style-type: none">• Invitation to re-group at tables• Outline of the process to be followed at each table	Dianna Vitasovic Table Facilitators
1.45 – 3.00	COMMUNITY DISCUSSION <ul style="list-style-type: none">• Discussion on Questions 1 to 3• Discussion on Question 4	15 Minutes each question + 5minutes to move to next table 20 minutes
3.00 - 3.20	Afternoon Tea	
3.20 – 3.40	REVIEW RESPONSES	
3.40 – 3.45	FEEDBACK FORMS	Participants to complete and handover to facilitators
3.45 – 3.50	CLOSING REMARKS	Mr Peter Schneider, Chief Executive Officer, EMRC
3.50	Community Task Force debrief	CTF Members


7.2 Community Forum Displays

Location

The four site options at the Red Hill Waste Management Facility are:



The map includes labels for 'Current green waste processing area', 'Current transfer station', 'Midland', 'South-west corner of the site', and 'Next to proposed Hills Spine Road'. It also shows 'Hills Spine Road' and 'Midland' roads.



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EMRC

Resource Recovery Products

- Electricity
- Compost
- Recovered metal
- Bio fuel
- Roadbase

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Proven Technologies

Five technologies being evaluated:

All offer significant benefits including renewable power, reducing the amount of waste sent to landfill, reducing greenhouse gas emissions and reducing the environmental impacts of landfill

Anaerobic digestion

process: Bacterial decomposition

recovers: Compost
Biogas – electricity



Combustion

process: Converting waste to heat by burning at high temperatures in a furnace

recovers: Heat (steam) and electricity
Bottom ash – roadbase
Recovered metals



Gasification

process: Converting waste to synthesis gas by using heat and limited air supply in a gasifier

recovers: Synthesis gas – electricity or fuel gas
Bottom ash – roadbase
Recovered metals



Plasma

in conjunction with combustion or gasification or pyrolysis

process: Melting waste at very high temperatures in a gasifier

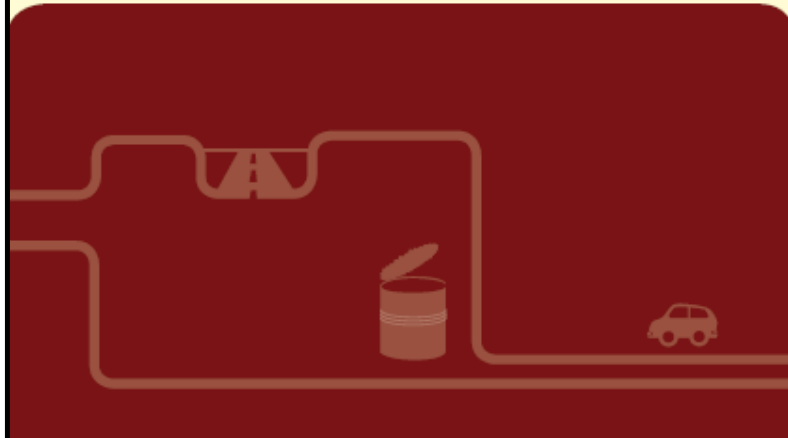
recovers: Synthesis gas – fuel gas (ethanol)
Inert slag – Roadbase
Recovered metals



Pyrolysis

process: As for gasification but in the absence of air

recovers: Synthesis gas and pyrolysis liquid – Bio fuel
Bio-char
Recovered metals



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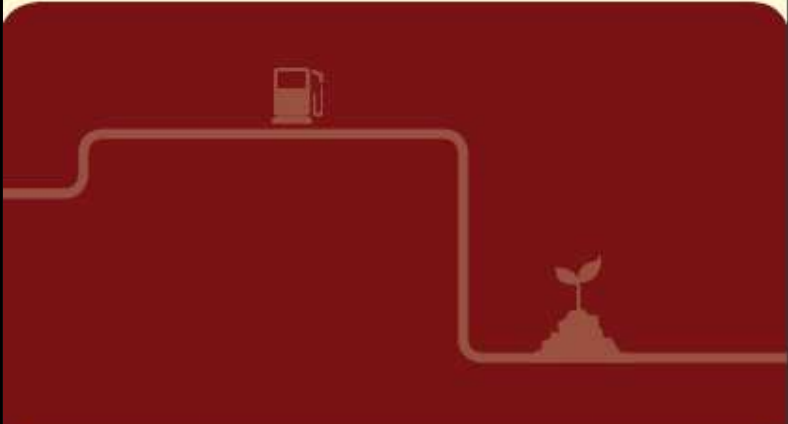





Proven Resource Recovery



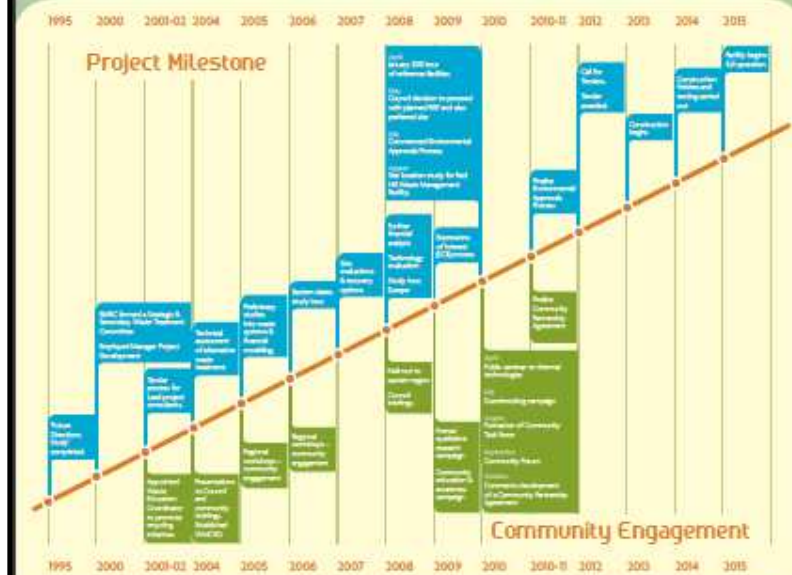
- ANAEROBIC DIGESTION**
There are hundreds of facilities worldwide including four anaerobic digestion facilities processing Municipal Solid Waste in Australia.
- COMPOSTION**
About 2,000 facilities world-wide, including 1,301 facilities in Japan.
- PIRYSIS**
There are several facilities operating on a commercial scale, mainly in Japan.
- GASIFICATION / PYROLYSIS**
There are 116 gasification plants worldwide.



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Journey To Date





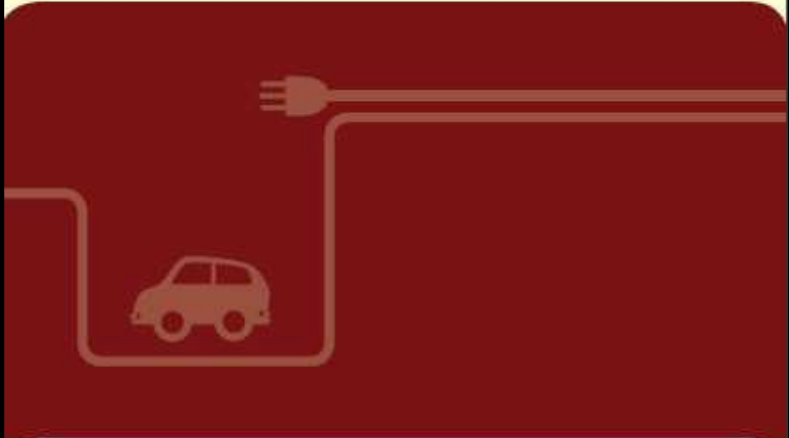
Community Partnership Agreement

What is it?

A Community Partnership Agreement (CPA) is a document that will outline the community's expectations in relation to the development and operation of the proposed facility.

How does it affect me?

- Preserves amenity and lifestyle
- Safeguards health
- Monitors environmental performance



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Community Task Force

EMRC worked with Perth's Eastern Region to establish a Community Task force (CTF). The role of the CTF is to develop a CPA using input from community representatives who have established links within their communities.

The CTF will meet regularly over a one year period and will address community concerns during the CPA development.

Community Task Force members are:



Members:
 Jack - East Perth Community House (East Perth)
 Les - Perth City Council (Perth)
 Debbie - Perth Housing (Perth)
 Malcolm - Perth City Council (Perth)
 Peter - Perth City Council (Perth)
 Alan - Perth City Council (Perth)
 George - Perth City Council (Perth)



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Tender Evaluation Criteria

Technical Criteria

- Energy production
- Marketable products
- Track Record
- Reliability

Environmental Criteria

- Emissions control
- Compliance
- Green House Emission reduction

Social Criteria

- Health
- Jobs
- Safety
- Architectural presentation

Economic Criteria

- Capital cost
- Costs per household

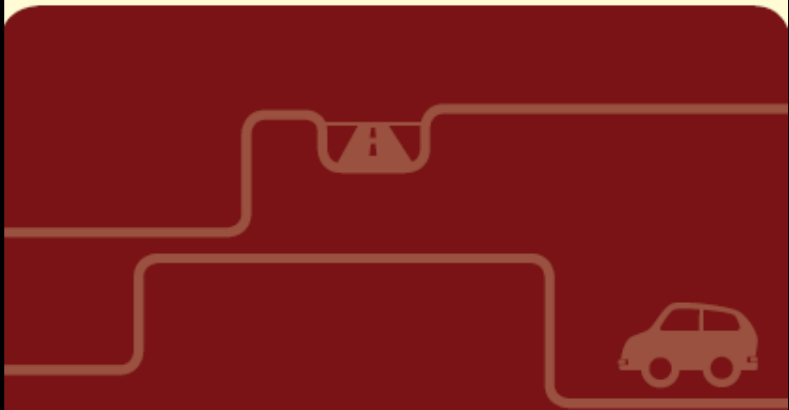
Legal Criteria

- Risk distribution

Tender Document

Tender Process

Resource Recovery Facility



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Recovering the Facts

- Q** Will EMRC take waste from other sources?

A Only household waste will be processed. Residual waste from other councils may be considered.
- Q** What about hazardous waste?

A The resource recovery facility will only process household waste and green waste.
- Q** How much waste is diverted from landfill?

A Between 70 - 90% of waste can be diverted depending on the chosen technology.
- Q** How much will the facility cost and what are the costs to ratepayers?

A Between \$30 and \$50 million depending on the chosen technology, with costs to ratepayers estimated at \$30 - \$45 per household per year.
- Q** What about emissions?

A In Europe, the USA and other locations around the world, technology suppliers of thermal technology options have been required to develop facilities that meet stringent emission limits - "WTE facilities generate electricity with less environmental impact than almost any other source of electricity" U.S. EPA.

SUGGESTIONS
DROP BOX
300 X 300



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7.3 Community Forum Notes

7.3.1 Topic One – Benefits of the Resource Recovery Facility

1.1 What benefits would you want the EMRC Resource Recovery facility to deliver for the community?

No.	Community Feedback	Theme
1.001	Lower the cost of waste disposal to the community in the long run	Economic
1.002	Provide employment to local people - not travelling across town to work - less greenhouse gases	Economic
1.003	Increased jobs through increasing recycling and source separation	Economic
1.004	Net energy costs = 0	Economic
1.005	Will there be a cost to the community?	Economic
1.006	If profits are being made it should benefit local community e.g. community fund	Economic
1.007	Needs to extend landfill life to avoid transport costs	Economic
1.008	Stabilisation of rates costs involved with waste management	Economic
1.009	Economic benefits - neutral costs to the consumer or profit	Economic
1.010	Keep balance between cost and environmental benefit	Economic
1.011	No additional costs to community	Economic
1.012	Sustainable environment - instead of land filling do something better	Environmental
1.013	Keep greenhouse gases down	Environmental
1.014	Zero toxic emissions - whenever you burn plastics you get dioxins	Environmental
1.015	Clean air	Environmental
1.016	What are the adverse impacts?	Environmental
1.017	Socially just and safe RRF with minimal environmental and health impacts	Environmental
1.018	Good traffic management for Red Hill	Environmental



No.	Community Feedback	Theme
1.019	Safer environment for community	Environmental
1.020	Monitoring at nearby houses - air quality, odour, bio - particles	Environmental
1.021	Reducing greenhouse gas emissions	Environmental
1.022	Reduce odour and discharge of landfill	Environmental
1.023	Environmentally and socially responsible treatment of waste	Environmental
1.024	Tree composts to garden	Environmental
1.025	Flora, fauna and environment - clean air and water	Environmental
1.026	No smell	Environmental
1.027	No groundwater contamination	Environmental
1.028	No leaching of facility residue which goes into landfill - John Forrest National Park surrounds	Environmental
1.029	Animal health - flora and fauna - protection of their health/wildlife - trees and bushland	Environmental
1.030	Is the concept of incineration best practice?	Environmental
1.031	Health and environmental values of hills region - clean air and water	Environmental
1.032	No plumes - a safe environment	Environmental
1.033	Truck movements - noise and amenity issues	Environmental
1.034	John Forrest National Park and buffer zone should be well kept/extended	Environmental
1.035	Stop ground water pollution	Environmental
1.036	Manage litter	Environmental
1.037	Banksia/kingia to be preserved, they take a long time to grow	Environmental
1.038	Maintain landscape - conduct a flora and fauna study, not only on Red Hill site but in the broader area	Environmental
1.039	The environment e.g. minimise dieback	Environmental



No.	Community Feedback	Theme
1.040	Clean, fresh air	Environmental
1.041	Noise (incl. from trucks) - facility noise - light (minimum) - limit	Environmental
1.042	Minimise impact on local fauna and flora	Environmental
1.043	Native bushland	Environmental
1.044	Dieback (i.e. on trucks)	Environmental
1.045	Water quality and table level	Environmental
1.046	Community to be educated to reduce waste and to separate out	Social
1.047	Traffic management @ Red Hill i.e. improve roads/be creative (train lines)	Social
1.048	Trucks to Red Hill full coming back to Perth empty - opportunities	Social
1.049	Local schools and community groups are made aware/educated on what is happening and type of technology	Social
1.050	Little consultation on site selection (did not know it happened)	Social
1.051	Less impact on John Forrest National Park e.g. litter/leakage. Manage it better	Social
1.052	Use RRF project in conjunction with neighbouring projects to lobby fed. Govt. assistance to improve Toodyay Road	Social
1.053	EMRC to educate re waste reduction	Social
1.054	Email out all info to participants	Social
1.055	Provide feedback to the community	Social
1.056	Residents bordering facility to have priority benefits	Social
1.057	Public education and partnerships - in schools - syllabus	Social
1.058	Develop trust with the public	Social
1.059	Include community expertise	Social



No.	Community Feedback	Theme
1.060	Return to the community e.g. compost	Social
1.061	Separate collections for household hazardous waste	Social
1.062	Local employment/contractors preferred	Social
1.063	Maximise recycling efforts in the community - more education	Social
1.064	Bring environmental issues to the forefront to the community	Social
1.065	Continue to support the community around Red Hill	Social
1.066	Extend Earth carers - to include volunteers, do R-Gang a different way/update	Social
1.067	Subsidised program to offer composting/worm farms to households	Social
1.068	Set a good visual example	Social
1.069	Preserve roads that are uncongested	Social
1.070	Provide easy ways of disposing of fluoro's - get education out	Social
1.071	We should each be responsible for our own rubbish	Social
1.072	Safety - on roads (traffic movements) with trucks	Social
1.073	Don't want views spoilt e.g. Smokestacks	Social
1.074	Tasteful - look nice and be screened with appropriate vegetation	Social
1.075	Co-location of equipment where possible e.g. communication antennae	Social
1.076	Inclusive community - educated and informed	Social
1.077	Maintenance of residential densities	social
1.078	No clay mounds. Stop visual pollution	Social
1.079	Preserve sacred sites (traditional)	Social
1.080	Hills lifestyle - community feel	Social
1.081	Preserve Susannah Brook	Social



1.2 What characteristics of your community or neighbourhood would you like to preserve?

No.	Community Feedback	Theme
1.082	Build and preserve Community Trust	Social
1.083	All buffer zones are maintained - Main Roads - also maintain vegetation in buffer zones	Social
1.084	Transport - designate route for trucks - options - travel time maintained - control of traffic through residential suburbs (minimal)	Social
1.085	Keep what is there now or better	Social
1.086	Maintain attractive features	Social
1.087	Maintain local heritage (if relevant) + aboriginal heritage	Social
1.088	Rural characteristics, hills lifestyle	Social
1.089	Visual pollution (limit)	Social
1.090	Improve the educational facility	Social
1.091	Create more energy than it takes, to feed back into grid - the one that does this best would be a good thing	Technology
1.092	Community fear/dissatisfactions about thermal options	Technology
1.093	Emission free plant	Technology
1.094	Has a favoured choice already been made? Why has been selected?	Technology
1.095	Provide a high quality product to be sold on/used in farmlands e.g. use mulch to improve water retention (ongoing benefit)	Technology
1.096	Utilise energy produced at faculty for local facilities e.g. sauna e.g. Power wind turbines	Technology
1.097	Use world class technology which can be reviewed and monitored with continuous improvement	Technology
1.098	New technology should be able to be upgraded in future years (retro fit) be flexible	Technology
1.099	Reducing waste to landfill	Technology
1.100	Producing renewable power	Technology



No.	Community Feedback	Theme
1.101	Identify potential hazards (control mechanism - penalties and monitoring/auditing)	Technology
1.102	Pre-operational set-up analysis - baselines	Technology
1.103	Best technology and scenario outcome/best practice	Technology
1.104	A community without a toxic producing facility	Technology
1.105	Process for compost use/distribution (demand vs. supply)	Technology
1.106	Manufacturers to reduce packaging e.g. plastics	Waste Management Systems
1.107	Retailers to reduce packaging	Waste Management Systems
1.108	Set targets for reduction of landfill - continued improvement to reduce waste generation	Waste Management Systems
1.109	Deliver responsible waste disposal - don't ask people to separate rubbish if facility doesn't keep it separate	Waste Management Systems
1.110	Reuse aspect? Tip shop?	Waste Management Systems
1.111	Once operational, to be kept informed of results	Waste Management Systems
1.112	Expand the facility to include commercial waste	Waste Management Systems
1.113	Do not expand into commercial and industrial - would like a guarantee that this will not happen	Waste Management Systems
1.114	Use smart vehicles - technological benefit for EMRC (region)	Waste Management Systems
1.115	The generation of power is not essential, responsible waste management is	Waste Management Systems
1.116	Improve basic recycling	Waste Management Systems
1.117	Objective of towards zero waste through waste reduction and point source separation and recycling	Waste Management Systems
1.118	Encourage a facility that requires separation	Waste Management Systems
1.119	Eco/green benefits = trucking waste (e.g. avoiding Brookdale incident)	Waste Management Systems
1.120	Recycling - white goods and other household goods and batteries	Waste Management Systems
1.121	Available depots	Waste Management Systems



No.	Community Feedback	Theme
1.122	Central - trash to treasure	Waste Management Systems
1.123	Recycle ANYTHING that can be recycled	Waste Management Systems
1.124	Like the 3 bins - makes one think about the act of separation	Waste Management Systems
1.125	Keep Coppin Road Transfer Station	Waste Management Systems



7.3.2 Topic 2 – Draft Tender Evaluation Criteria for the Resource Recovery Facility

What other elements should be considered in the draft Tender Criteria?

No.	Community Feedback	Theme
2.001	What is the cost per household?	Economic
2.002	Resources to ensure appropriate monitoring continuing	Economic
2.003	Availability of cost analysis for each technology - start up and ongoing	Economic
2.004	The ones on the sheet - good	Economic
2.005	Who would pay the carbon tax?	Economic
2.006	Ongoing cost per household?	Economic
2.007	5yr plan window costs	Economic
2.008	Minimal residual toxins in - road fill - smoke emission - landfill	Environmental
2.009	Concern over pcb's - severe toxic waste	Environmental
2.010	Landfill will leach into g/w	Environmental
2.011	Noise	Environmental
2.012	Dust	Environmental
2.013	Surrounding landscape e.g. no litter	Environmental
2.014	Open and accountable measures of pollution	Environmental
2.015	A gate 'x' #days without exceedence of env. Criteria	Environmental
2.016	Discharge of water - proper management required	Environmental
2.017	Zero tolerance on emission exceedences	Environmental
2.018	Website access to monitoring result	Environmental
2.019	Use Aust. Std. for measuring or strictest	Environmental



No.	Community Feedback	Theme
2.020	Baseline studies on noise, pollution and air - tender should ensure these aren't exceeded - independent continuously and frequently	Environmental
2.021	ISO 14001 assessments	Environmental
2.022	Identify everything that will be measured <u>AND</u> those that won't	Environmental
2.023	Economic credentials of tender	Environmental
2.024	Emissions - wind corridors - surrounding residents - rainwater collection	Environmental
2.025	Air quality standards study - water quality standards - baseline	Environmental
2.026	Evaluation Criteria - e.g. Of world standards for Pyrolysis in particular "most stringent"	Environmental
2.027	Health implications and considerations e.g. By tender process and standards. "Health impact study"	Environmental
2.028	Environmental standards	Environmental
2.029	Commitment to ongoing emissions monitoring	Environmental
2.030	High contaminants in ash e.g. lead, dioxin, furans	Legal
2.031	Tenderers, EMRC and persons in govt. to declare impartiality and relationships or interests	Legal
2.032	Tender criteria should reflect other councils successes and failures	Legal
2.033	Lowest tender not the best for each technology	Legal
2.034	Cost should be transparent to ratepayers	Legal
2.035	Monitoring and policing	Legal
2.036	Independent monitoring	Legal
2.037	Independent audits	Legal
2.038	Failsafe organisation?	Legal
2.039	Tender evaluation process - competitive nature of tendering - strong competition between each technology (technology type) as well as across all the technology available Discussed - this may lead to cost cutting offered to win their bid (criteria needs to be able to evaluate effectively which does not just come down to \$). How could evaluation overcome this? Can it? Issue of "confidentiality" of companies' technology if not available for community to know what being considered how can we have an effective "evaluation" process	Legal



No.	Community Feedback	Theme
2.040	Evaluation. What if the "chosen technology" does not work? What can be included in the criteria to cover the potential risk e.g. \$bond and the trust to be able to fix up problem. contract conditions between EMRC and chosen provider).	Legal
2.041	Accountability of "provider/builder? of RRF	Legal
2.042	Checkpoints for community e.g. Financial penalties for breaches or not meeting requirements	Legal
2.043	Liability responsibility - tender a person responsible should be included to carry some responsibility for the "risks" to community	Legal
2.044	Legal process - do tenders get "investigated" for legal compliance	Legal
2.045	Tender process and issue of impartiality - have impartiality interests been declared by relevant parties in regard to "Red Hill" operation (e.g. City of Swan) Councillors and decision making. Retrospective and future	Legal
2.046	If the company goes bankrupt - guarantee. Environmental. De-commissioning clause - public liability	Legal
2.047	Bond? - Environmental, will it be applied - does it exist/required	Legal
2.048	Would all technologies meet local, national and international laws e.g. Treaties	Legal
2.049	Cost blowouts - who pays??	Legal
2.050	Impact of traffic: product going in and out	Social
2.051	Risk to ratepayer - service not available e.g. breakdowns - contractor goes bankrupt	Social
2.052	Who will monitor the monitors?	Social
2.053	Government not trusted to deliver object political free choice	Social
2.054	Limitation placed in public domain i.e. website and public forums - public comments	Social
2.055	Information on technology that's chosen made publicly available	Social
2.056	Penalty based on performance for exceedences	Social
2.057	Community review of draft criteria	Social
2.058	What benefits will the plant bring to communities	Social
2.059	Percentage of Aust. Labour content +/- or material production cost - is it made in Australia?	Social
2.060	Complete transparency with the community	Social



No.	Community Feedback	Theme
2.061	Worker safety	Social
2.062	Community input over quality control - how to include in "tender process"	Social
2.063	Indigenous heritage significant study included	Social
2.064	Indigenous site considerations	Social
2.065	Educational component of RRF e.g. able to go and view, have viewing facilities/considerations	Social
2.066	How does tender process work? How can the community be involved in the tendering process when it comes up? Will community be able to see	Social
2.067	<u>Social</u> - tender criteria to reflect the community benefits (e.g. discussed in Question 1). Material benefits to immediate and general community.	Social
2.068	Evidence of tenders ability to liaise with the community and "inform" where appropriate	Social
2.069	Research opportunities with building of facility	Social
2.070	Relationship between tender and research/educations to see if "cutting edge" technology being utilised. Rather than just "buying off the shelf". To demonstrate "quality to improvement"	Social
2.071	Community capacity (CTF) to "stop" or be involved if tender not doing the "right" thing	Social
2.072	Problem of tender process - how to stop doing wrong - need to specify in tender any capacity of the community to be involved	Social
2.073	Impacts of traffic (e.g. Traffic problem due to amount and flow volume of traffic	Social
2.074	benefits and disadvantages to the community to be considered	Social
2.075	Consideration of visual impacts i.e. lots of rubbish on road now, what will be further impacts i.e. in rubbish collection and maintenance	Social
2.076	Legal criteria - community input - need to consider potential community health impacts e.g. Lack of consideration	Social
2.077	Home prices/"impacts on private property owners" e.g. Property prices, effects on food production, lifestyles - organic producers	Social



No.	Community Feedback	Theme
2.078	Need to calculate/consider the "real" community cost not just applying the "cost effective" economic considerations	Social
2.079	Nothing gets done until regulated for	Social
2.080	More information on expressions of interest	Social
2.081	When will the community get the opportunity to comment on the actual technology	Social
2.082	Health impacts	Social
2.083	Can the community taskforce (CPA) rule out any proposed technology?	Social
2.084	Health standards - legally enforceable	Social
2.085	Health impact assessments process - will there be any? (HIA)	Social
2.086	Commitments to ongoing community engagement	Social
2.087	Australian contractors	Technology
2.088	20 yr? life minimum + growth factor on tech. + efficiency + independent monitoring	Technology
2.089	Will technology be fail safe?	Technology
2.090	How will ash be disposed? - safe options for disposal	Technology
2.091	Emergency shutdown and evacuation plan	Technology
2.092	Level of technical. expertise of the people running the plant	Technology
2.093	Technology to be decided before going to tender so tender specific enough	Technology
2.094	Independent assessment of thermal processes	Technology
2.095	Need to update technology when improvements become available	Technology
2.096	Contingency plan for failure e.g. not performing to stats e.g low??? Compost	Technology
2.097	Track record of tender	Technology
2.098	Contingency plans for toxic waste	Technology
2.099	Waste that can not be processed not accepted	Technology



No.	Community Feedback	Theme
2.100	Ranked based on emissions - carbon	Technology
2.101	Seek lowest emission proposal	Technology
2.102	Breakdowns - how long? Safety? Spare parts availability.	Technology
2.103	Life expectancy of the plant/technology	Technology
2.104	Upgradability inline technology and science/environmental upgrades	Technology
2.105	Flexibility of quantity and quality for the technology - waste changes	Technology
2.106	Criteria on not just best practice, but zero emissions	Technology
2.107	Reliability of the end product, process and the plant	Technology
2.108	Potential tenders to provide emission and pollution standards/limits for the equipment to be used in the RRF before making the referred tender list - i.e. has to be a criteria to be met by tenders equipment	Technology
2.109	Evaluate where energy of RRF to "power" the technologies & run the plant (net energy balances us output of RRF) for each technology e.g. electricity, h2o, etc	Technology
2.110	Energy gaps (usage and output) comparison for each technology - combustion - where will water for steam turbines come from	Technology
2.111	Risk management - criteria - none of the thermal technologies are currently operating in Aust. Need to manage risk if this type of technology chosen	Technology
2.112	Final criteria/different criteria information may apply dependent on what technology is chosen	Technology
2.113	Redo evaluation criteria once technology chosen	Technology
2.114	Risk - what if something goes wrong? Council and community will bear the cost \$. Need security for residents	Technology
2.115	Catastrophic recovery plan	Technology
2.116	How do we know what the impacts if we don't know the technology	Technology
2.117	Number of technologies reduced?	Technology
2.118	Is the chosen process adaptable to new technology as it becomes available?	Technology



No.	Community Feedback	Theme
2.119	Criteria on sustainability and climate change assessment - issues of imbedded energy	Technology
2.120	Cost should not be the only factor	Waste Management Systems
2.121	Responsible waste management should be the driver of the process	Waste Management Systems
2.122	# Bins	Waste Management Systems
2.123	Some residents don't have a bin run	Waste Management Systems
2.124	How to get rid of material saved from landfill - composted product - so avoid stockpiling	Waste Management Systems
2.125	Consider using bags instead of bins - lower cost e.g. Subiaco	Waste Management Systems
2.126	Recovery of recyclables	Waste Management Systems
2.127	Down stream processing of recycling onsite value adding	Waste Management Systems
2.128	Non-toxic road base material produced	Waste Management Systems
2.129	Agree with the rest of the comments	Other comment
2.130	Weighting important across all areas is equitable	Other comment
2.131	How many companies? - On the tender?	Other comment



7.3.3 Topic Three Community Partnership Agreement

What are some of the things you would like to see in the Community Partnership Agreement?

No.	Community Feedback	Theme
3.001	The facility should be cost effective for rate payers	Economic
3.002	A cap on how much rate payers will have to subsidise	Economic
3.003	Share cost with every Council/Shire	Economic
3.004	By products sold to member council's pro-rata first e.g electricity generated to member councils first. Benefits to benefit member councils	Economic
3.005	Clearing of land - protecting wildlife	Environmental
3.006	Treatment of vermin	Environmental
3.007	Ongoing study of all possible health and environmental effects - scientific rigour	Environmental
3.008	Continuous emissions monitoring	Environmental
3.009	Keep it clean	Environmental
3.010	Not to impact the current water level	Environmental
3.011	Priority on water purity	Environmental
3.012	Concerned of water usage	Environmental
3.013	What are the relative water needs for the methods?	Environmental
3.014	Not to impact water quality - groundwater and above ground water	Environmental
3.015	Baseline study - everything - traffic, air, water, etc	Environmental
3.016	Rubbish is contained	Environmental
3.017	Concerned with rocky terrain due to effluent leakage	Environmental
3.018	Sustainability assessment and climate change impact assessment	Environmental



No.	Community Feedback	Theme
3.019	Safe environment - emissions - pollution - no water contamination - health issues - not unsightly building - no noise or odour - CPA to deliver these outcomes	Environmental
3.020	Produce a measurable net environmental benefit - scientific rigor	Environmental
3.021	A fire prevention strategy	Environmental
3.022	Midland and Swan Valley have an air quality problem, mainly from brickworks; will combine with gas and particulate emissions from RRF. Study into consequences	Environmental
3.023	Monitoring of all activities - tonnage - accidents - control measures	Legal
3.024	Continuous improvement process as a way of fixing problems	Legal
3.025	Independent monitoring	Legal
3.026	Enforceable criteria for the license - total shutdown for exceedance of license requirements and fines	Legal
3.027	Have to report exceedance of licence conditions immediately	Legal
3.028	KPI's	Legal
3.029	What would the consequence be if not safe?	Legal
3.030	Shut down if exceeds standards	Legal
3.031	Guarantee of the set hours of operation	Legal
3.032	Guarantee what happens in the case of public health issues	Legal
3.033	EMRC to have public liability cover in case of health affects to local community	Legal
3.034	Rules need to apply to both commercial and private	Legal
3.035	In-depth (reliable) third party monitoring of emission (+anaerobic)	Legal
3.036	Shut down facility due to non compliance with emissions	Legal
3.037	Independencies of the regulations of facility missing	Legal
3.038	End of life and decommissioning of plant required	Legal



No.	Community Feedback	Theme
3.039	Plant not privatised or sold off e.g Telstra	Legal
3.040	Facility will require a licence to operate by DEC and given that currently no licences issued to industry are legally enforceable why will this be different?	Legal
3.041	Paper (local) advertisements to outline summarise monitoring reports perhaps monthly	Social
3.042	Perth-Adelaide Hwy re-alignment - how does it impact on RHF	Social
3.043	Community need input into development applications	Social
3.044	Emphasis on education to reduce household waste - needs to be a State Govt priority	Social
3.045	Like to see wider community input on the CPA objectives as outlined in the Mindarie Regional Council	Social
3.046	All information and reporting must be publically available and on the internet	Social
3.047	Reporting should be in layman's terms	Social
3.048	Constant opportunity for general public to have input and feedback	Social
3.049	Plant does not affect the health of anyone living nearby or in the general area. It must be safe	Social
3.050	Agree with objectives within MRC CPA - agree	Social
3.051	Should be in a parkland setting - visual aspect landscaping	Social
3.052	It's hypocritical for the EMRC to decide to build a plant without community consultation, and then expect the community to decide what kind of plant	Social
3.053	People should have the option of dealing with waste at home instead of paying fee	Social
3.054	Benefit or reward system for those who do the right thing	Social
3.055	Not after midnight - noise abatement, traffic movement and noise odour and light	Social
3.056	Emergency response procedure	Social
3.057	Education facility - program in schools and education system	Social
3.058	If they take on toxic waste, that must be communicated to community or public consultation prior to taking on, treatment	Social



No.	Community Feedback	Theme
3.059	No extension of the intake of major toxic materials or transport without extensive study	Social
3.060	Commitment to ongoing community engagement	Social
3.061	Mindarie's CPA used as a base for the EMRC CPA	Social
3.062	Is Mindarie's CPA a given framework for EMRC?	Social
3.063	Commitment to legally enforceable health protection standards and laws are missing from Mindarie's CPA	Social
3.064	One of the objectives is to increase job opportunities through recycling and point source separation	Social
3.065	Future contracts to purchase products to hang community consultations	Social
3.066	Opposing to Point 6.6 Rewards for successful compliance with key performance indicators - Mindarie's CPA	Social
3.067	Regular reporting of performance levels i.e. tonnes of waste processed	Social
3.068	Regular reporting of emissions levels	Social
3.069	Regular reporting of site incidences	Social
3.070	A trigger for a local area community group to shut down the facility if - a community trigger	Social
3.071	Majority of community seem to have no input whatsoever into this project	Social
3.072	Technology choice should be the lowest risk technology in preference to highest risk - health and environmental risks	Technology
3.073	Technology should not add to the pollution burden in the local area	Technology
3.074	Must comply with world's best practice	Technology
3.075	Balance with population increase	Technology
3.076	Corners cut not acceptable - best design and constructions and best practice	Technology
3.077	Building best facility possible	Technology
3.078	Road base products quality monitored	Technology



No.	Community Feedback	Theme
3.079	Ethical and trustworthy operator to run facility	Technology
3.080	Concerned about toxic residual in landfill - concentrated leachate and impact for many years	Technology
3.081	Produce marketable and useful products	Technology
3.082	Source separation should be a major component of the process	Waste Management Systems
3.083	To encourage people to use their own waste	Waste Management Systems
3.084	Waste avoidance should be a key factor	Waste Management Systems
3.085	It be at a scale to allow for people getting better in waste diversion - as small as possible with projected improvements	Waste Management Systems
3.086	Use less, recycle more	Waste Management Systems
3.087	Should include suitable material from commercial sources	Waste Management Systems
3.088	CPA include points such as reducing waste, encourages and provides for cleaning waste stream through increased recycling and point source separation - deliver benefits to communities	Waste Management Systems
3.089	CPA - commitment to waste reduction and increase recycling underpinned by principles of sustainability's (ESD Rio 2000)	Waste Management Systems
3.090	Main objective should be towards zero waste	Waste Management Systems
3.091	Delivery of compost to ratepayers i.e. delivered to your door	Waste Management Systems
3.092	How will EMRC market the end products?	Waste Management Systems



7.3.4 Topic 4: Technology Options for the Resource Recovery Facility

ANAEROBIC DIGESTION				
No	Benefits	Disadvantages	Concerns	More Information
1	Cheaper	More waste left over	Smell?	How is product sold? E.g. bags of compost sold at Bunning's?
2	decrease landfill	size required for this method	Impact on immediate community. Vulnerable nature of the site. Already not complying with DEC & litter laws.	Long term studies of those technologies that have closed or been reprimanded due to their impacts.
3	no comment made	materials remain	no comment made	no comment made
4	Remove green waste. Reduces greenhouse gases	Doesn't remove all waste must have outlet to sell / supply product	That this technology won't be used.	Why they don't consider aerobic combustion
5	More recycling. Re-use recover of materials than the thermal options. Better health + EWV outcomes. NO GHG + Toxic emissions.	Relies on good source separation. + Therefore must be part of design.	Odour management. Dust + vapour emissions. (fugitive) Integrity of compost produced realises on cleanliness of waste streams.	Use of energy generated. Assurance that source separation + recycling is in design. Carbon tax impacts?
6	no gas emissions well proven	Limited diversion from landfill 70% 60% 50%? Difficult market for compost. Limited energy recovery	no comment made	no comment made
7	This system seems good from some aspects. ie... Good recycling etc.	material NOT broken down completely for more uses	Do we know all the aspects of what can go wrong?	I'd really like to be more informed on all areas of this method.
8	Produces product	Health problems for people living near the facility. Is	How safe is the material not broken down that is sold to	no comment made



ANAEROBIC DIGESTION				
No	Benefits	Disadvantages	Concerns	More Information
		this monitored?	markets?	
9	low temperature process	Poor power output. Relatively big land use for plant. Less high waste diversion from landfill.	no comment made	risk of breakdown of all plants. Downtime likelihoods.
10	Limited input of energy / electrical power. reduction of greenhouse gas compost production. Recovery of recyclable first. Low risk of air/waster pollution + health risks. Uses Australian expertise. Provides some jobs.	Exhaust gas may need treatment. Contamination of organics effects. Land areas required. (once of cost). Provides jobs. Compost to be developed. (please spend \$ to develop). Organic material only treated. (combine with other technology to divert higher % of waste). biogas cleaning (develops technology + provide jobs).	no comment made	Is there commitment to solve the identified problems + educate the community to help this technology work?
11	Reduces greenhouse gases. Low risk odours. Water pollution and air pollution minimal risk.	markets for compost waste not yet available. Biogas corrosion and odour.	no comment made	no comment made
12	No commission's products. Useful end product for soul improvement	may need extra separation @ source. Only organic fraction of MSW	none	no comment made



ANAEROBIC DIGESTION				
No	Benefits	Disadvantages	Concerns	More Information
13	I don't know enough to answer 4.1 or 4.2	I don't know enough to answer 4.1 or 4.3	I don't know enough to answer 4.1 or 4.4	Anaerobic Digestion
14	This is a natural product. Reduces volume to landfill. Operates at a low temperature = less chance of undesirable by products	This is a natural product. Reduces volume to landfill. Operates at a low temperature = less chance of undesirable by products	This is a natural product. Reduces volume to landfill. Operates at a low temperature = less chance of undesirable by products	This is a natural product. Reduces volume to landfill. Operates at a low temperature = less chance of undesirable by products
15	safest	more landfill	limited - not all waste materials	no comment made
16	it sounds safer. More info required	not as much recycling - only 70% what disadvantages are people around the world suggesting? And how have they been researched to be proved or disproved?	odour removal? Is it effective? How effective? Are people in different parts of the world suggesting / reports similar types of concerns? Dangerous gases risks? Char & ash waste? If any or many of these plants have been closed, closing or planned to close around the world and why?	yes... all of the above and experts concerns around the world.



ANAEROBIC DIGESTION				
No	Benefits	Disadvantages	Concerns	More Information
17	no comment made	no comment made	odour	no comment made
18	low cost of start up & operation. low odours. Recovery of products. use of produce for greening effects etc to lower co2	produces CO2 as an end product. Transformant of artificial products. Organic material only.	needs balancing to efficiency and output of CO2. marketing somewhat uncertain. Requires stainless steel (high energy) materials for containers.	cost benefits analysis for EMRC flow system
19	no comment made	no comment made	no comment made	community have more input decisions on all of this. Decisions to be made into all of this.
20	How much land into the future? What is the net fuel costs?	How much land into the future? What is the net fuel costs?	future - what happens to the 'afters', plastics etc. calculations of emissions in other areas e.g. council	plant and equipment possibilities
21	Objection to this request as insufficient has been provided - enable completion	the info supplied today is too late for this use.	no comment made	no comment made
22	no comment made	no comment made	Smell?	capital cost recovery cost long term cost
23	what volumes of waste can be handled? How much organics not broke down	if only 70% diverted will this achieve less waste to landfill?	inadequate volume processor. How consistent would results be? Sure using bacteria.	reliability of plant to achieve constant results.
24	no comment made	not adequate	no comment made	no comment made
25	Across all technologies - employment of skilled & unskilled labour	have other communities ceased using any of these technologies?	across all technologies - photographs of their visual appearance. - do we have a	across all technologies - age of each example - existing plants which are still



ANAEROBIC DIGESTION				
No	Benefits	Disadvantages	Concerns	More Information
	once they are operational using est. plants as a sample.		market for the products produced. I. E do we have the technology to import the electricity into the grid.	sustainable. Across the three thermal technologies - when / how & at what cost could plasma be added at a later date.
26	Of all technologies being considered this one seems to be the most environmentally friendly.	no comment made	no comment made	no comment made
27	I've learned today from Stephen that this option is cheaper - \$50m. Unusable compost for farms and landscaping	All RRF options will be seen by gen. public as CONTRADICTING 4R's practices, education etc. all thermal methods risk releasing dioxins. Furious carcinageus.	As above - breakdown. Accident incidences + impact of existing facilities of these impacts.	How toxic emissions will be prevented. How water hungry all methods are. How many neighbouring properties will be supported with water needs? Whether EMRC is willing to wrap up (as in SERIOUSLY) household diversion support services
28	reduces gas emissions. Low risk	low ability to treat organic material	land area required	a demonstration of how this will work
29	non thermac process. Mimics natural process. Lower risk (health & environment)	potentially contaminated products (need source separation)	odour, rock quality compost	Aerobic composting
30	low risk of air and water pollution	restricted to organic materials	possibility of pollution. 70 ground water.	Anaerobic digestion
31	minimal health and pollution risks. Local	land requirements. less waste diversion	availability of ongoing land - site and site of plant.	no comment made



ANAEROBIC DIGESTION				
No	Benefits	Disadvantages	Concerns	More Information
	(Australian) knowledge.	necessarily of gas cleaning. Need for adequate separation.		
32	encourages / requires separation. Less energy input. Less greenhouse emission. Lower risk technology	less reduction in landfill but more recycling in a useable end product.	that the WMRC experience is ignored and expensive foreign product is selected.	tendering process & technology select on criteria.
33	reduction of landfill. Reduction of dio oxen's.	slower process. Size - intensive (bigger reduces more waste). Potentially toxic waste water.	people need to be educated to compost and severally reduce waste. Everything else is a band - aid resolution.	using waste as a nuclear fuel.
34	local knowledge	finding suitable long-term market pos compost?	odour control? Water use? Footprint? Outdated technology?	no comment made
35	cheaper	too many generals too many organic wastes	none	no comment made
36	no comment made	there is no real proof of any of these options working. i.e. health, noise and other pollution.	I don't want this facility	why I wasn't asked if I wanted any of these facilities as my neighbour.
37	no comment made	no comment made	no comment made	a comparison between the technologies of the energy & pollution costs to produce the advantages.
38	compost	yesterdays technology	large area needed.	no comment made
39	less air pollution. Higher output of useful materials.	escape of odours. Materials can only work at their own rate.	inconvenience with odours	no comment made
40	for who?	as a resident -	the location - next	community



ANAEROBIC DIGESTION				
No	Benefits	Disadvantages	Concerns	More Information
		lifestyle	to nat park / residential	concerns where different technologies are currently being used.
41	reproduce greenhouse gases. Low risk of air or water pollution	uncertain markets for waste	limited treatment	no comment made
42	low odour	requires a three bin system - restricted to organic matter, large footprint	how to extract as much organic matter as possible	cost to build
43	reduce landfill, produce energy, compost fertilisation	cleaning bio gas	that we don't chose this one and go for incineration	how to persuade EMRC that this is the only responsible choice.
44	to reduce greenhouse gas emissions. i.e. reduces bio gas - used to generate electricity. Proven technology in Australia helps reduce landfill amounts	can only treat organic materials & these have to be sorted	need to control emissions - & leakages needs large land area - not rocky terrain	how progress in this important digestion is progressing
45	low risk of odours	no comment made	no comment made	no comment made
46	low risk , air, h2o odour pollution	biogas corrodes and smells	environmental emissions	impact environmentally plant schematics
47	low risk, air, water and soil pollution	no comment made	no comment made	no comment made
48	everyone wants to lower green house gases + reduce side effects	no comment made	I don't have enough information that can be digested to make informed comment in time available.	the processes from independent sources. Public information sessions before options are decided



ANAEROBIC DIGESTION				
No	Benefits	Disadvantages	Concerns	More Information
				on.
49	compost. Low risk air and water pollution. No smoke going in to atmosphere clear	takes time	no comment made	no comment made
50	produces remarketable reduces landfill products, no emissions	large amounts of land required	no comment made	no comment made
51	no emissions clear	need space? Smells takes time	I have not been presented with other options other than combustion option	I would like to know what non combustion options are available.
52	less emissions	the product is not always saleable	smell and large amount of unusable product	smell "emissions" amount of land used for process
53	produces electricity (energy) 70% organic recovery. Biological process (organic material) more easy friendly - lowest cost option with good landfill recovery 70%	only deals with organic waste - the other streams still goes to landfill (30%) or potentially can be recovered in other ways.	odour management - uncertain markets for product very few concern,	not enough known by the community on the technologies proposed (complex in nature)
54	70% organic & recyclable biogases cleaner electricity	30% non organic doesn't need to be landfill	very few	no comment made



GASIFICATION				
No	Benefits	Disadvantages	Concerns	More information
1	90% waste diversion	no comment made	no comment made	no comment made
2	decrease landfill	potential for future expansion with increase in population including commercial waste.	ditto	ditto
3	no comment made	no comment made	no comment made	no comment made
4	Reduce waste	toxic emissions - toxic ash buried	toxic emissions	Why would you consider
5	none	toxic residues emissions end of pipe task no incentives for the R,R,R's.	Health + EWV impacts costs to rate payers	residue disposal. Carbon tax Impacts?
6	good energy recovery. Good diversion from landfill. Reasonably well proven. Waste separated from exhaust air.	some POTE for gas emission.	no comment made	no comment made
7	no comment made	no comment made	no comment made	no comment made
8	no comment made	safety for the workers	no comment made	what are the costs to the public
9	low footprint. Biggest power output/unit of waste. Max diversion from landfill.	cost of plant	technology still evolving	ricks of breakdown of all plants. Downtime likelihoods.
10	g.g reductions. Low risk and water pollutions. Low risk odour. 90% waste diversion small footprint.	tech. to clean gas still developing. Capital cost high. Recovery and use. Air pollution.	air pollution redirection. Goes g.g reduction take account of high energy input to heat waste? i.e. is it an energy producer or reducer overall. Air pollution.	air pollution risks.



GASIFICATION				
No	Benefits	Disadvantages	Concerns	More information
11	reduce greenhouse gas. Low level water pollution. High recovery rate.	technology to clean gas still developing. Capital cost can be high. Recovery risk problem.	how long before technology advances. Possibly higher cost?	no comment made
12	high diversion rate`	undeveloped capital work	residue disposal	no comment made
13	I don't know enough to answer 4.1 or 4.2	I don't know enough to answer 4.1 or 4.3	I don't know enough to answer 4.1 or 4.4	Gasification
14	none of them are natural processes & I have doubts about them.	no comment made	all high temperature processes are prone to problems with toxic output.	everything - independent residue - for and against. Not just the markets cycle.
15	less land fill	need more info	need more info	need more info
16	it sounds safer. More info required	not as much recycling - only 70% what disadvantages are people around the world suggesting? And how hare they been researched to be proud or disproved?	odour removal? Is it effective? How effective? Are people in different parts of the world suggesting / reports similar types of concerns? Dangerous gases risks? Char & ash waste? If any or many of these plants been closed, closing or planned to close around the world and why?	yes... all of the above and experts concerns around the world.
17	emission	emission	emission	more detailed explanation
18	flexible use of combustibles. More negotiable / cost neutral. Low risk to environmental odours. High recovery efficiency. High commission 90%	high capital cost. Technology still under development. Use of char fagmatics needs to be identified.	marketing of waste product needs to be established as a primary requirement before plant setup	risks - businesses used as this determines success or failure of overall process and use of product.
19	no comment made	no comment made	no comment made	no comment made



GASIFICATION				
No	Benefits	Disadvantages	Concerns	More information
20	no comment made	no comment made	can these plants be easily expanded? What are the 50yrs plus plans regarding these were they operating.	should a technology be decided upon can we redo entire community consult or tender of operation
21	Objection to this request as insufficient has been provided - enable completion	the info supplied today is too late for this use.	no comment made	no comment made
22	no comment made	no comment made	no comment made	capital cost recovery cost long term cost
23	how much energy needed is going to be natural. Who will residue char?	how long before gas unusable in normal energy	no comment made	long term effects of using energy
24	small footprint high waste diversion. Low risk environment pollution proven technology.	need to develop tech to exile direct use of gas. Market for char needs developing	cost	direct use of gas
25	Across all technologies - employment of skilled & unskilled labour once they are operational using est. plants as a sample.	have other communities ceased using any of these technologies?	across all technologies - photographs of their visual appearance. - do we have a market for the products produced. I . E do we have the technology to import the electricity into the grid.	across all technologies - age of each example - existing plants which are still sustainable. Across the three thermal technologies - when / how & at what cost could plasma be added at a later date.
26	I don't know enough about these technologies to	no comment made	no comment made	no comment made



GASIFICATION				
No	Benefits	Disadvantages	Concerns	More information
	consider the pros and cons - these are mentioned in the leaflet anyway. So I am not going to simple regurgitate them on this sheet. I am very cynical about the whole push by the EMRC for a RRF			
27	no comment made	All RRF options will be seen by gen. public as CONTRADICTING 4R's practices, education etc. all thermal methods risk releasing dioxins. Furious carcinageus.	As above - breakdown . Accident incidences + impact of existing facilities of these impacts.	How toxic emissions will be prevented. How water hungry all methods are. How many neighbouring properties will be supported with water needs. Whether EMRC is willing to wrap up (as in SERIOUSLY) household diversion support services
28	footprint	cost of plant	no comment made	no comment made
29	no comment made	thermac process. Resource destruction. High CO2 emission per unit energy. Not a mature tech	emissions. Resource destruction. Recyclables are destroyed. Capital cost.	Aerobic composting
30	reduction of greenhouse gases. Low risk of odours. Water pollution.	capital costs	possibility of pollution 70 air and water	no comment made



GASIFICATION				
No	Benefits	Disadvantages	Concerns	More information
31	90% diversion from landfill. Less land required proven technology. Fuel & heat produced can be used.	higher cost. More development in gas cleaning required.	recovery & use of by products.	no comment made
32	reduces land fill and gas land fill	thermal discharges of pollutants in heating process & potential contaminant in solid residue.	market for gas grid around is limited to access more power.	details of emission standards. Technology selection criteria.
33	quicker	generates or releases more dioxins. More water intensive for cooling etc.	explosive nature of some waste, even screened waste.	no comment made
34	no comment made	no comment made	no comment made	no comment made
35	low risk of water pollution & odours produces gas	use a char?	none	no comment made
36	no comment made	there is no real proof of any of these options working. i.e. health, noise and other pollution.	I don't want this facility	why I wasn't asked if I wanted any of these facilities as my neighbour.
37	no comment made	no comment made	no comment made	no comment made
38	small footprint for plant	no comment made	no comment made	no comment made
39	this process enables the use of practices to		escape of vapours and heat	no comment made
40	for who? no comment made	as a resident - lifestyle	the location - next to nat park / residential	community concerns where different technologies are currently being used.
41	reproduce greenhouse gases. Low risk of air or water pollution	high cost of operation. Char recovery problem	possible high costs	no comment made



GASIFICATION				
No	Benefits	Disadvantages	Concerns	More information
42	produces the most power (electricity) (small footprint)	high cost disposal char	if located at red hill how can the heat produced be best used.	no comment made
43	none	toxic waste exhaust spread over community green house gases	"minimal health risks' not good enough. " reuse of char.. Problematic" why do it?	avoiding this option
44	reduces greenhouse emissions. Saves landfill	high cost. Can be hard to retrieve char. Needs lots of electricity to run the plant	needs fuel high temperatures i.e. gasification	need more information
45	no comment made	no comment made	no comment made	no comment made
46	90% waste diversion	gas cleaning not suitable. - cost to rate payers	environmental impact. Land values (real-estate)	plant schematics
47	very concerned with all of these four. - contamination , ashes, gases	you've quoted various energy uses - but is the technology i.e. ethanol, electricity, etc - but do you really have the capacity to harness this immediately? How much water + electricity used in these processes + where are you getting them?	don't know enough info re: all combustions. Smoke stacks + emissions. Controls ramification on soil, water, air.	how does this affect my organic food business. Do these run 24hrs per day? Noise? Smell? What studies have been done on winds, ground water etc. very concerned on Gidgegannup lifestyle + impact on wildlife i.e.. Carnabys cockatoo + retail cockatoo (endangered species).
48	everyone wants to lower green house gases + reduce side effects	no comment made	I don't have enough information that can be digested to make informed comment in	the processes from independent sources. Public



GASIFICATION				
No	Benefits	Disadvantages	Concerns	More information
			time available.	information sessions before options are decided on.
49	no comment made	Wildlife - have we considered endangered birds and effect of smoke contaminants on them & other wildlife	all these four emit smoke into atmosphere and am concerned about what is in the smoke, how often will smoke be going into atmosphere, wind direction, smell and contaminants want to make sure its not another ALCOA	no comment made
50	turns waste into energy. Not fuel , gas	no comment made	no comment made	no comment made
51	benefits cannot be assessed without adequate technical knowledge of problems.	many problems that have been presented with combustion	there has been no forum for discussions on problems / emission and handling of flies from pyrolysis / combustion	need comprehensive technical advice from world experts on combustion process and problems.
52	small , self contained	has emissions	no comment made	the use of the gases created & emissions.
53	produces power. More recovery from landfill	not recovering the organic waste stream. Highly technical plant (high capital costs) operating costs , maintenance; regulation compliance.	atmosphere emissions - removal of odours from atmosphere - where is water requirements & power usage (inputs) required for - contaminants (e.g.. Heavy materials) in ash residues.	not enough known by the community on the technologies proposed (complex in nature)
54	high power use	high operating costs	dust from residue (pollutant) atmosphere emissions. How much is being used and where is it coming from?	a heck of a lot



PYROLYSIS				
No	Benefits	Disadvantages	Concerns	More information
1	no comment made	no comment made	no comment made	no comment made
2	decrease in landfill	ditto	impact on immediate community. Vulnerable nature of the site. Already not complying with DEC & litter laws.	ditto
3	no comment made	no comment made	no comment made	no comment made
4	Reduce waste	toxic emissions - toxic ash buried	toxic emissions	Why would you consider
5	none	toxic residues emissions end of pipe task no incentives for the R,R,R's.	Health + EWV impacts costs to rate payers	residue disposal. Carbon tax Impacts?
6	good energy recovery. Good diversion from landfill. Reasonably well proven. Waste separated from exhaust air.	some POTE for gas emission.	no comment made	no comment made
7	no comment made	no comment made	no comment made	no comment made
8	no comment made	no comment made	no comment made	no comment made
9	low footprint. Biggest power output/unit of waste. Max diversion from landfill.	cost of plant	technology still evolving	risk of breakdown of all plants. Downtime likelihoods.
10	g.g reduction. 90% landfill reduction gas, electricity + bio-char produced. Low risk water pollution. Low risk odours. High resource recovery min health risked.	still evolving technology marlots to be developed for chart pyrolysis liquids. Cleaning technology still developing. Air pollution.	high energy input. many encourage / confirm waste production rather than reduction.	air pollution risks.



PYROLYSIS				
No	Benefits	Disadvantages	Concerns	More information
11	reduces green house gas and refill to 90%.low water pollution. Low odour risk. Commercially produced.	lack of market opportunity for char Pyrolysis	no comment made	no comment made
12	comparatively unproven technology	comparatively unproven technology	comparatively unproven technology	comparatively unproven technology
13	I don't know enough to answer 4.1 or 4.2	I don't know enough to answer 4.1 or 4.3	I don't know enough to answer 4.1 or 4.4	Pyrolysis
14	none of them are natural processes & I have doubts about them.	no comment made	all high temperature processes are prone to problems with toxic output.	everything - independent residue - for and against. Not just the markets cycle.
15	can't make an informed comment on the best option.	can't make an informed comment on the best option.	can't make an informed comment on the best option.	need more info on all
16	it sounds safer. More info required	not as much recycling - only 70% what disadvantages are people around the world suggesting? And how hare they been researched to be proud or disproved?	odour removal? Is it effective? How effective? Are people in different parts of the world suggesting / reports similar types of concerns? Dangerous gases risks? Char & ash waste? If any or many of these plants been closed, closing or planned to close around the world and why?	yes... all of the above and experts concerns around the world.
17	emission	emission	emission	more detailed explanation
18	high conversion 90%. Low risk of further pollution products refill issues. High recovery rate for resources. Commercially	technology still advancing. (++) for efficiencies in future) changes may be required to continue efficiency levels. How market options as yet for	that plant be set up I markets enabling future change	nature of products and uses as direct saleable products. Process need for + process of cleaning



PYROLYSIS				
No	Benefits	Disadvantages	Concerns	More information
	powered.	char & liquid products - needs work.		synthesis gas (? By products)
19	no comment made	no comment made	no comment made	no comment made
20	no comment made	no comment made	can these plants be easily expanded? What are the 50yrs plus plans regarding these were they operating.	should a technology be decided upon can we redo entire community consult or tender of operation
21	Objection to this request as insufficient has been provided - enable completion	the info supplied today is too late for this use.	no comment made	no comment made
22	no comment made	no comment made	no comment made	capital cost recovery cost long term cost
23	technology still being developed	no comment made	higher temp may uneven safety risks	no comment made
24	liquid may be useful	no comment made	no comment made	no comment made
25	Across all technologies - employment of skilled & unskilled labour once they are operational using est. plants as a sample.	have other communities ceased using any of these technologies?	across all technologies - photographs of their visual appearance. - do we have a market for the products produced. I . E do we have the technology to import the electricity into the grid.	across all technologies - age of each example - existing plants which are still sustainable. Across the three thermal technologies - when / how & at what cost could plasma be added at a later date.
26	I don't know enough about these technologies to consider the pros	no comment made	no comment made	no comment made



PYROLYSIS				
No	Benefits	Disadvantages	Concerns	More information
	and cons - these are mentioned in the leaflet anyway. So I am not going to simple regurgitate them on this sheet. I am very cynical about the whole push by the EMRC for a RRF			
27	no comment made	All RRF options will be seen by gen. public as CONTRADICTING 4R's practices , education etc. all thermal methods risk releasing dioxins. Ferrous carcinogens.	As above - breakdown . Accident incidences + impact of existing facilities of these impacts.	How toxic emissions will be prevented. How water hungry all methods are. How many neighbouring properties will be supported with water needs. Whether EMRC is willing to wrap up (as in SERIOUSLY) household diversion support services
28	no comment made	who want the char	no comment made	no comment made
29	no comment made	thermal process. Resource destruction. High co2 emission per unit energy. Not a mature tech	emissions. Resource destruction. Recyclables are destroyed. Capital cost.	aerobic composting
30	reduction of green house gases low risk of water & odour pollution.	technology must be safe	possibility of pollution 70 air & water.	no comment made



PYROLYSIS				
No	Benefits	Disadvantages	Concerns	More information
31	90% reduction in landfill. Marketable products. High recovery rate. Low health and pollution risks	technology still developing. Markets not fully available	no comment made	no comment made
32	reduces quantity of landfill & methane production in landfill	energy intensive generating green house gases. Risk of pollutants in chimney & in char / liquids.	as in disadvantages above & also concern about exceeding & setting discharge pollutants.	detailed emission standards. Downtime & exceedant of existing plant.
33	quicker	generates or releases more dioxins. More water intensive for cooling etc.	explosive nature of some waste, even screened waste.	no comment made
34	no comment made	high level of expertise required to control sufficiently.	no comment made	no comment made
35	can make fuel. Makes electricity.	still evolving technology to be developed. Clean technology still developing. Air pollution.	none	no comment made
36	no comment made	there is no real proof of any of these options working. i.e. health , noise and other pollution.	I don't want this facility	why I wasn't asked if I wanted any of these facilities as my neighbour.
37	no comment made	no comment made	no comment made	no comment made
38	no comment made	no comment made	no comment made	no comment made
39	no comment made	no comment made	no comment made	no comment made
40	for who? no comment made	as a resident - lifestyle	the location - next to national park / residential	community concerns where different technologies are currently being used.



PYROLYSIS				
No	Benefits	Disadvantages	Concerns	More information
41	reproduce greenhouse gases. Low risk of water pollution	not enough known of this process	not enough known of this process	no comment made
42	no comment made	not many in operation	is there more energy produce than used during this process	have the pilot plants been a success
43	none	toxic waste in airborne exhaust, + road base by products 'minimal health risks' not good enough. " green house gases	toxic pollution does risk outweigh storage concentrated toxic waste in landfill	avoiding this option
44	no comment made	no comment made	no comment made	no comment made
45	no comment made	technology still evolving	no comment made	no comment made
46	90% reduction	not proven	by product removal!	plant design
47	very concerned with all of these four. - contamination, ashes, gases	you've quoted various energy uses - but is the technology i.e. ethanol, electricity, etc - but do you really have the capacity to harness this immediately? How much water + electricity used in these processes + where are you getting them?	don't know enough info re: all combustions. Smoke stacks + emissions. Controls ramification on soil, water, air.	how does this affect my organic food business. Do these run 24hrs per day? Noise? Smell? What studies have been done on winds, ground water etc. very concerned on Gidgegannup lifestyle + impact on wildlife i.e. Carnabys cockatoo + retail cockatoo (endangered species).
48	everyone wants to lower green house gases + reduce	no comment made	I don't have enough information that can be digested to make	the processes from independent



PYROLYSIS				
No	Benefits	Disadvantages	Concerns	More information
	side effects		informed comment in time available.	sources. Public information sessions before options are decided on.
49	no comment made	Wildlife - have we considered endangered birds and effect of smoke contaminants on them & other wildlife	all these four emit smoke into atmosphere and am concerned about what is in the smoke, how often will smoke be going into atmosphere, wind direction, smell and contaminants want to make sure its not another ALCOA	no comment made
50	low water pollution. High recovery rate of resources. Minimal health risks	technology still evolving.	no comment made	no comment made
51	benefits cannot be assessed without adequate technical knowledge of problems.	many problems that have been presented with combustion	there has been no forum for discussions on problems / emission and handling of flies from Pyrolysis / combustion	need comprehensive technical advice from world experts on combustion process and problems.
52	no comment made	emissions	no comment made	emissions
53	produces power. More recovery from landfill	not recovering the organic waste stream. Highly technical plant (high capital costs) operating costs , maintenance; regulation compliance.	atmosphere emissions - removal of odours from atmosphere - where is water requirements & power usage (inputs) required for - contaminants (e.g.. Heavy materials) in ash residues.	not enough known by the community on the technologies proposed (complex in nature)



PYROLYSIS				
No	Benefits	Disadvantages	Concerns	More information
54	high power use	high costs operating	dust from residue (pollutant) atmosphere emissions. How much is being used and where is it coming from?	a heck of a lot



COMBUSTION				
No	Benefits	Disadvantages	Concerns	More information
1	no comment made	no comment made	no comment made	no comment made
2	decrease landfill	ditto	impact on immediate community. Vulnerable nature of the site. Already not complying with DEC & litter laws.	ditto
3	no comment made	no comment made	no comment made	no comment made
4	Reduce waste	toxic emissions - toxic ash buried	toxic emissions	Why would you consider
5	none, in fact a net disadvantage	toxic emissions increased reliance on waste streams for economic visibility. Toxic residue - dioxide.	health impacts. Environmental impacts. Cost impacts to ratepayers unsustainable	why are we even considering this technology. Carbon tax impacts?
6	good energy recovery. Good diversion from landfill. Reasonably well proven.	need to maintain exhaust gas temps to ensure emission.	no comment made	no comment made
7	no comment made	no comment made	no comment made	no comment made
8	no comment made	no comment made	no comment made	no comment made
9	simple technology	large land use. Emissions seen to be a big problem.	which are on cautious concern	risks of breakdown of all plants. Downtime likelihoods.
10	reduces g.g 90% landfill reduction. Low water pollution. Low odours. Low health risks. High resource recovery.	risk air pollution. No recycles recovery	Encourages / confirms waste production in community.	air pollution risks.
11	no comment made	no comment made	no comment made	no comment made



COMBUSTION				
No	Benefits	Disadvantages	Concerns	More information
12	no comment made	no comment made	exhaust gases pollutants	no comment made
13	I don't know enough to answer 4.1 or 4.2	I don't know enough to answer 4.1 or 4.3	I don't know enough to answer 4.1 or 4.4	Combustion
14	none of them are natural processes & I have doubts about them.	no comment made	all high temperature processes are prone to problems with toxic output.	everything - independent residue - for and against. Not just the markets cycle.
15	can't make an informed comment on the best option.	can't make an informed comment on the best option.	can't make an informed comment on the best option.	need more info on all
16	it sounds safer. More info required	not as much recycling - only 70% what disadvantages are people around the world suggesting? And how have they been researched to be proud or disproved?	odour removal? Is it effective? How effective? Are people in different parts of the world suggesting / reports similar types of concerns? Dangerous gases risks? Char & ash waste? If any or many of these plants been closed, closing or planned to close around the world and why?	yes... all of the above and experts concerns around the world.
17	emission	emission	emission	more detailed explanation
18	high efficiency 90% conversation only? Minimal risk of health consequences.	high capital costs. Conversation to CO2 & other gases. Health risk if manufactures due to gases produced if sufferers malfunction.	high area of land footprint. No recovery of recyclables. High temp = need to reduce temp at flue. High conversation to steam - steam turbine - electrical needed.	no comment made
19	no comment made	no comment made	no comment made	no comment made



COMBUSTION				
No	Benefits	Disadvantages	Concerns	More information
20	no comment made	no comment made	can these plants be easily expanded? What are the 50yrs plus plans regarding these were they operating.	should a technology be decided upon can we redo entire community consult or tender of operation
21	Objection to this request as insufficient has been provided - enable completion	the info supplied today is too late for this use.	no comment made	no comment made
22	no comment made	no comment made	no comment made	capital cost recovery cost long term cost
23	seems like high risk process	no comment made	no comment made	no comment made
24	no comment made	no comment made	no comment made	no comment made
25	Across all technologies - employment of skilled & unskilled labour once they are operational using est. plants as a sample.	have other communities ceased using any of these technologies?	across all technologies - photographs of their visual appearance. - do we have a market for the products produced. I . E do we have the technology to import the electricity into the grid.	across all technologies - age of each example - existing plants which are still sustainable. Across the three thermal technologies - when / how & at what cost could plasma be added at a later date.
26	I don't know enough about these technologies to consider the pros and cons - these are mentioned in the leaflet anyway. So I am not going to	no comment made	no comment made	no comment made



COMBUSTION				
No	Benefits	Disadvantages	Concerns	More information
	simple regurgitate them on this sheet. I am very cynical about the whole push by the EMRC for a RRF			
27	no comment made	All RRF options will be seen by gen. public as CONTRADICTING 4R's practices, education etc. all thermal methods risk releasing dioxins. Ferrous carcinogens.	As above - breakdown . Accident incidences + impact of existing facilities of these impacts.	How toxic emissions will be prevented. How water hungry all methods are. How many neighbouring properties will be supported with water needs. Whether MERCY is willing to wrap up (as in SERIOUSLY) household diversion support services
28	no comment made	no comment made	no comment made	no comment made
29	no comment made	thermal process. Resource destruction. High co2 emission per unit energy.	emissions. Resource destruction. Recyclables are destroyed. Capital costs.	aerobic composting
30	reduction of greenhouse gases. Low risk of odour & water pollution	no recyclables	possibility of pollution of air & water.	no comment made
31	low pollution odour. High recovery rate low health risk.	no recovery at recyclables. Large land area. Higher cost.	no comment made	no comment made
32	reduce bulk & gas going into landfill.	very energy intensive. Very	poor standards & supervision by	how electricity would



COMBUSTION				
No	Benefits	Disadvantages	Concerns	More information
		inefficient power generation. High risk of pollutants in both air, ash and solid residue	EPP/DEC. possible inclusion of hazardous materials concern about level of pollutants.	efficiently be used. Detailed emissions info of exiting plants.
33	Quicker	generates or releases more dioxins oxen's. More water intensive for cooling etc.	explosive nature of some waste, even screened waste.	no comment made
34	no comment made	high level of expertise required to control sufficiently.	no comment made	no comment made
35	reduction of greenhouse gases	high capital costs. Conversion to CO2 & other gases. Health risk if manufactures due to gases produced if sufferers malfunction.	none	no comment made
36	no comment made	there is no real proof of any of these options working. i.e. health, noise and other pollution.	health, noise, high cost I don't want this facility	why I wasn't asked if I wanted any of these facilities as my neighbour.
37	no comment made	no comment made	no comment made	no comment made
38	no comment made	no comment made	no comment made	no comment made
39	no comment made	high cost of operation	no comment made	no comment made
40	for who?	as a resident - lifestyle	the location - next to nat park / residential	community concerns where different technologies are currently being used.
41	reproduce greenhouse gases.	high costs to operate. Large area	will not cater for recyclable materials.	no comment made



COMBUSTION				
No	Benefits	Disadvantages	Concerns	More information
	Low risk of water pollution	required for plant. No recovery or recyclable materials.		
42	no comment made	no comment made	how best to use the heat produced. Is there more energy produced than used during this process.	no comment made
43	none	toxic waste exhausted from starch, "minimal health risks' not good enough. " green house gases	toxic pollution does risk outweigh storage?	avoiding this option
44	no comment made	no comment made	no comment made	no comment made
45	no comment made	high capital costs.	complex operation	no comment made
46	90% reduction	complex	emissions	plant design (schematics) I need technical advice on the combustible technology which is understandable to everyone
47	very concerned with all of these four. - contamination, ashes, gases	you've quoted various energy uses - but is the technology i.e. ethanol, electricity, etc - but do you really have the capacity to harness this immediately? How much water + electricity used in these processes + where are you getting them?	don't know enough info re: all combustions. Smoke stacks + emissions. Controls ramification on soil, water, air.	how does this affect my organic food business. Do these run 24hrs per day? Noise? Smell? What studies have been done on winds, ground water etc. very concerned on Gidgegannup lifestyle + impact on wildlife i.e.



COMBUSTION				
No	Benefits	Disadvantages	Concerns	More information
				Carnabys cockatoo + retail cockatoo (endangered species).
48	everyone wants to lower green house gases + reduce side effects	no comment made	I don't have enough information that can be digested to make informed comment in time available.	the processes from independent sources. Public information sessions before options are decided on.
49	no comment made	Wildlife - have we considered endangered birds and effect of smoke contaminants on them & other wildlife	all these four emit smoke into atmosphere and am concerned about what is in the smoke, how often will smoke be going into atmosphere, wind direction, smell and contaminants want to make sure its not another ALCOA	no comment made
50	no comment made	no comment made	no comment made	no comment made
51	benefits cannot be assessed without adequate technical knowledge of problems.	many problems that have been presented with combustion	there has been no forum for discussions on problems / emission and handling of flies from pyrolysis / combustion	need comprehensive technical advice from world experts on combustion process and problems.
52	no comment made	emissions	no comment made	emissions
53	produces power. More recovery from landfill	not recovering the organic waste stream. Highly technical plant (high capital costs) operating costs , maintenance; regulation compliance.	Atmosphere emissions - removal of odours from atmosphere - where is water requirements & power usage (inputs) required for - contaminants (e.g.. Heavy materials) in ash residues.	not enough known by the community on the technologies proposed (complex in nature)



COMBUSTION				
No	Benefits	Disadvantages	Concerns	More information
54	high power use	high operating costs	dust from residue (pollutant) atmosphere emissions. How much is being used and where is it coming from?	a heck of a lot



PLASMA (note that Plasma will only be considered in conjunction with another thermal technology)				
No.	Benefits	Disadvantages	Concerns	More information
1	no comment made	no comment made	no comment made	no comment made
2	decrease landfill	no comment made	Impact on immediate community. Vulnerable nature of the site. Already not complying with DEC & litter laws.	ditto
3	no comment made	not enough info	no comment made	no comment made
4	Reduce waste	toxic emissions - toxic ash buried	toxic emissions	Why would you consider
5	none	no comment made	no comment made	carbon tax impacts?
6	no comment made	no comment made	no comment made	no comment made
7	no comment made	no comment made	no comment made	no comment made
8	no comment made	no comment made	no comment made	no comment made
9	Any?	no comment made	no comment made	no comment made
10	no comment made	no comment made	no comment made	no comment made
11	reduced green house gas emission and landfill 90%. Convert waste to recyclable by products.	no comment made	no comment made	no comment made
12	no comment made	no comment made	no comment made	no comment made
13	I don't know enough to answer 4.1 or 4.2	I don't know enough to answer 4.1 or 4.3	I don't know enough to answer 4.1 or 4.4	Plasma
14	none of them are natural processes & I have doubts about them.	no comment made	all high temperature processes are prone to problems with toxic output.	everything - independent residue - for and against. Not just the markets cycle.



PLASMA (note that Plasma will only be considered in conjunction with another thermal technology)

No.	Benefits	Disadvantages	Concerns	More information
15	can't make an informed comment on the best option.	can't make an informed comment on the best option.	can't make an informed comment on the best option.	need more info on all
16	it sounds safer. More info required	not as much recycling - only 70% what disadvantages are people around the world suggesting? And how have they been researched to be proud or disproved?	odour removal? Is it effective? How effective? Are people in different parts of the world suggesting / reports similar types of concerns? Dangerous gases risks? Char & ash waste? If any or many of these plants been closed, closing or planned to close around the world and why?	yes... all of the above and experts concerns around the world.
17	emission	emission	emission	more detailed explanation
18	high conversion. Recovery high for recycling metals. Flexible use of heat for by product to electricity or heating.	small foot print. Flexible use for gases (Fuel) History on small scale does not present well.	cost of plant / benefits?	products produced?
19	no comment made	no comment made	no comment made	no comment made
20	it's cool do it	few	not enough done to integrate possible employment opportunities effectively ' smarting up ' our workforce.	are there research opportunities for tertiary in varying plasma that would take advantage of mitigate construction. Is there a way to guarantee these facilities will not take waste from mother places outside EMRC.
21	Objection to this request as insufficient has been provided - enable	the info supplied today is too late for this use.	no comment made	no comment made



PLASMA (note that Plasma will only be considered in conjunction with another thermal technology)

No.	Benefits	Disadvantages	Concerns	More information
	completion			
22	no comment made	no comment made	no comment made	capital cost recovery cost long term cost
23	no comment made	no comment made	no comment made	no comment made
24	no comment made	no comment made	no comment made	no comment made
25	Across all technologies - employment of skilled & unskilled labour once they are operational using est. plants as a sample.	have other communities ceased using any of these technologies?	across all technologies - photographs of their visual appearance. - do we have a market for the products produced. I . E do we have the technology to import the electricity into the grid.	across all technologies - age of each example - existing plants which are still sustainable. Across the three thermal technologies - when / how & at what cost could plasma be added at a later date.
26	I don't know enough about these technologies to consider the pros and cons - these are mentioned in the leaflet anyway. So I am not going to simple regurgitate them on this sheet. I am very cynical about the whole push by the EMRC for a RRF	no comment made	no comment made	no comment made
27	no comment made	All RRF options will be seen by gen. public as CONTRADICTING 4R's practices , education etc. all thermal methods risk releasing dioxins. Ferrous	As above - breakdown . Accident incidences + impact of existing facilities of these impacts.	How toxic emissions will be prevented. How water hungry all methods are. How many neighbouring properties will be supported with



PLASMA (note that Plasma will only be considered in conjunction with another thermal technology)

No.	Benefits	Disadvantages	Concerns	More information
		carcinogens.		water needs. Whether EMRC is willing to wrap up (as in SERIOUSLY) household diversion support services
28	no comment made	no comment made	no comment made	no comment made
29	no comment made	thermal process. Resource destruction. High CO2 emission per unit energy. Not a mature tech	emissions. Resource destruction. Recyclables are destroyed. Capital cost.	Aerobic composting
30	no comment made	no comment made	no comment made	no comment made
31	small footprint. Ability to recover metals. Hazardous waste conversion	large electricity requirements. Technology still developing. Cannot operate without other option.	no comment made	no comment made
32	maybe efficient process in future to minimise bulk into landfill.	high cost. Not proven very energy intensive. Not enough information on operating efficiency.	shut downs. Processes of hazardous waste a real concern. Possible large cost impact. Possible discharge of toxins.	need to understand a lot more about how the process works, reliability of cost effectiveness.
33	quicker	generates or releases more dioxins More water intensive for cooling etc.	explosive nature of some waste, even screened waste.	no comment made
34	no comment made	high level of expertise required to control sufficiently.	no comment made	no comment made
35	no source separation	still being developed	none	no comment made
36	no comment made	there is no real proof of any of	I don't want this facility	why I wasn't asked if I wanted any of



PLASMA (note that Plasma will only be considered in conjunction with another thermal technology)

No.	Benefits	Disadvantages	Concerns	More information
		these options working. i.e. health, noise and other pollution.		these facilities as my neighbour.
37	no comment made	no comment made	no comment made	no comment made
38	no comment made	no comment made	no comment made	no comment made
39	no comment made	no comment made	no comment made	no comment made
40	for who? no comment made	as a resident - lifestyle	the location - next to nat park / residential	community concerns where different technologies are currently being used.
41	reproduce greenhouse gases. Low risk of air or water pollution	costs involved in process. Not yet fully proven	cost to the householder	no comment made
42	no comment made	no comment made	no comment made	no comment made
43	none	expensive unproven technology, high energy consumption green house gases	toxic pollution	how to avoid EMRC choosing this
44	no comment made	no comment made	no comment made	no comment made
45	no comment made	no comment made	no comment made	no comment made
46	90% reduction - environmental impact	drain on grid to power plant	still new development	plant design (schematics)
47	very concerned with all of these four. - contamination, ashes, gases	you've quoted various energy uses - but is the technology i.e. ethanol, electricity, etc - but do you really have the capacity to	don't know enough info re: all combustions. Smoke stacks + emissions. Controls ramification on soil, water, air.	how does this affect my organic food business. Do these run 24hrs per day? Noise? Smell? What studies have been done on winds,



PLASMA (note that Plasma will only be considered in conjunction with another thermal technology)

No.	Benefits	Disadvantages	Concerns	More information
		harness this immediately? How much water + electricity used in these processes + where are you getting them?		ground water etc. very concerned on Gidgegannup lifestyle + impact on wildlife i.e.. Carnabys cockatoo + retail cockatoo (endangered species).
48	everyone wants to lower green house gases + reduce side effects	no comment made	I don't have enough information that can be digested to make informed comment in time available.	the processes from independent sources. Public information sessions before options are decided on.
49	no comment made	Wildlife - have we considered endangered birds and effect of smoke contaminants on them & other wildlife	all these four emit smoke into atmosphere and am concerned about what is in the smoke, how often will smoke be going into atmosphere, wind direction, smell and contaminants want to make sure its not another ALCOA	no comment made
50	no comment made	no comment made	no comment made	no comment made
51	benefits cannot be assessed without adequate technical knowledge of problems.	many problems that have been presented with combustion	there has been no forum for discussions on problems / emission and handling of flies from pyrolysis / combustion	need comprehensive technical advice from world experts on combustion process and problems.
52	no comment made	no comment made	no comment made	emissions
53	produces power. More recovery from landfill	not recovering the organic waste stream. Highly technical plant (high capital costs)	atmosphere emissions - removal of odours from atmosphere - where is water requirements	not enough known by the community on the technologies proposed



PLASMA (note that Plasma will only be considered in conjunction with another thermal technology)

No.	Benefits	Disadvantages	Concerns	More information
		operating costs , maintenance; regulation compliance.	& power usage (inputs) required for - contaminants (e.g.. Heavy materials) in ash residues.	(complex in nature)
54	high power use	high operating costs	dust from residue (pollutant) atmosphere emissions. How much is being used and where is it coming from?	a heck of a lot



7.5 Attendees*

	Surname	First Name	Comment
1.	Arasi	Sharon	
2.	Arnold	Ashley	
3.	Arnold	Teniele	
4.	Barker	Malcolm	WMCRG Member
5.	Bremmer	Jane	
6.	Catchpole	Philippa	
7.	Catchpole	Bernard	
8.	Chape	Martin	CTF member
9.	Collins	John	
10.	Conochie	Brenda	
11.	Cooke	Audrey	
12.	Cooke	Hubert	
13.	Dundas	Barbara	
14.	Erceg	Maria	
15.	Fitzpatrick	Steve	EMRC
16.	Foster-Hawkings	Jan	CTF member
17.	Geller	Rusty	
18.	Godfrey	Cr Glenys	EMRC Councillor
19.	Graham	Sue	
20.	Green	Tony	
21.	Hales	Noel	CTF member
22.	Hamersley	Vicki	
23.	Herbert	Geoff	
24.	Irving	David	
25.	Jamieson	Max	CTF member
26.	Jensen	Peter	CTF member
27.	Jones	Greg	CTF member
28.	Jones	Ron	
29.	Kerr	Phillip	
30.	Kerr	Josephine	
31.	Klein	Tina	WMCRG Member
32.	Langley	Phill	
33.	Langley	Fiona	
34.	Lewis	Ray	WMCRG Member
35.	Marks	Cr Phil	EMRC Councillor
36.	Marshall	Anne	
37.	Marshall	Lesley	
38.	Mehta	Prapti	EMRC
39.	McAtee	Di	
40.	Madlener	Bill	
41.	Madlener	Ann	
42.	Mooney	Patrick	
43.	Moore	Hazel	
44.	Munut	David	
45.	Naumann	Rhonda	



	Surname	First Name	Comment
46.	Neilson	Jenny	
47.	Neilson	Jim	
48.	Pearson	Peter	CTF member
49.	Pittaway	Graham	EMRC Chairman
50.	Reed	Jeane	
51.	Reed	Dennis	
52.	Richardson	Barry	
53.	Rowe	Rob	
54.	Rudelforth	Ross	
55.	Schelfhout	Bernie	
56.	Schneider	Peter	EMRC CEO
57.	Sim	Rob	Cardno
58.	Simpson	Mark	WMCRG Member
59.	Simpson	Janine	
60.	Sothorn	Paula	
61.	Strain	David	WMCRG Member
62.	Sutherland	Byron	
63.	Sutherland	John	
64.	Tester	Rebecca	
65.	Thompson	Greg	
66.	Thompson	Suzanne	
67.	Van Proctor	Rodney	
68.	Van Proctor	Rodney	
69.	Venters	Nigel	
70.	Virgona	Nick	
71.	Wass	Donelle	
72.	Waterman	Cathy	
73.	Western	Zion	
74.	Westerman	Catheryn	
75.	Wigmore	Noelene	CTF member
76.	Zupan	Erica	
77.	Zupan	Anton	

* The list includes names of all the people who attended the community forum.