



# Mindarie Regional Council Earth Carers Program

March 2016



-Anne Hands out resource materials  
Group info. super 6 program.  
-Reg classes

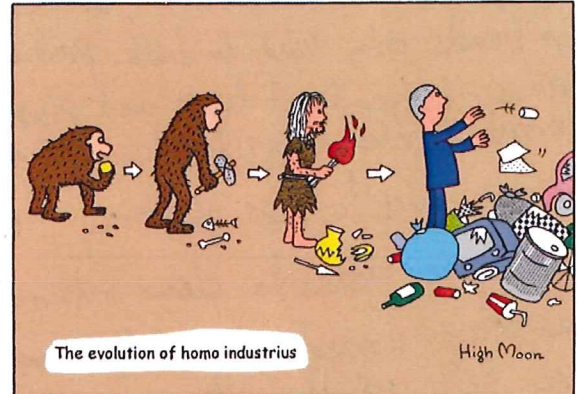
Reduce, Reuse,  
Recycle, and  
**Dispose Wisely**



## What to put in our bins and where do they go?

### What happens tonight?

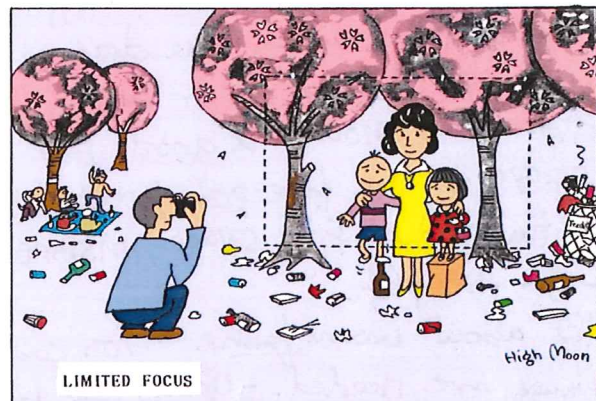
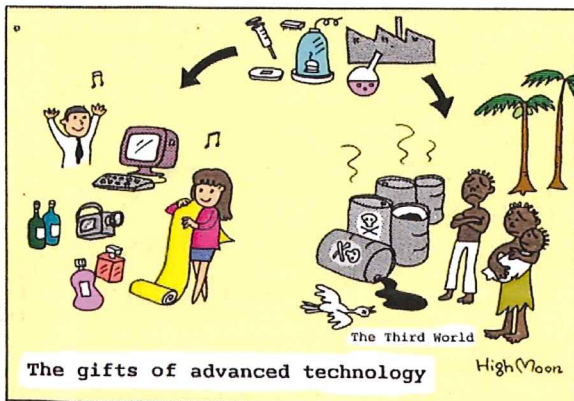
- ◆ Intro and what do you expect from course.
- ◆ Meeting the trucks and seeing the issues of collection
- ◆ Which bin do I put this in?
- ◆ Background on the history and types of waste
- ◆ How do we deal with your waste in WA?
- ◆ *The Story of Stuff*



### Notes and where to go for more information:

Earth Carer's handbook "*Living with Less Waste*" located on the MRC website under Earth Carers support materials: <http://www.mrc.wa.gov.au/Community-2/Earth-Carers-programs/Earth-Carers--Support-Material.aspx>

- ◆ How waste composition has changed historically. (page 6-7)
- ◆ Different waste sources and who is responsible for dealing with it. (pages 9-16)
- ◆ What gets recycled. Why and why not. (pages 17-21 and 27-29)
- ◆ Different materials and what to do with them. (page 33)
- ◆ Problematic wastes such as electronics (E) waste, disposable nappies and plastics. (pages 39- 41)



### Things to think about

- ◆ The concept of 'cradle to cradle' where we make and produce goods that will either degrade back to be used by plants or else continue to improve the technological environment. (Michael Braungart and William McDonough have published a book called *Cradle to Cradle: Remaking the Way We Make Things*).
- ◆ Just because it *can* be recycled does not mean it *will* be recycled. Recycling is a 'market' and so must be profitable for the industry.
- ◆ An empty bin is a good bin—even the recycling bin. It costs money and resources as soon as we put it in a bin.



## Tours of Facilities

### What happens today?

- ◆ Tour of Composting Facility
- ◆ Tour of Tamala Park Landfill
- ◆ Recycling Facility



### Tour of Composting Facility (Resource Recovery Facility / RRF):

The RRF was opened in July 2009 as a response to the dramatic increase in landfill volume in WA. After all options were considered, the choice of an enclosed aerobic composting system was adopted. The RRF is owned and operated by a specially formed company Biovision 2020. SITA, a large international waste management group is responsible for day to day operations.

100,000 tonnes of wheelie bin waste from the Mindarie Regional Council's member councils is processed each year as per the 20 year contract requirement to produce compost. No commercial waste is accepted. The compost (soil conditioner) is removed and may be further mixed to become a fit for purpose product by the commercial composter C-wise and is used on broad acre farming, roadside landscaping with Main Roads and mine rehabilitation.

The residue waste is currently being taken back to Tamala Park landfill for burial.

### Tour of Tamala Park Landfill:

Tamala Park landfill was opened in 1991 and is expected to last until about 2025. About 220, 000 tonnes of solid waste is deposited each year. At the facility there is a Tip Shop and Recycling Collection Centre where goods and recyclables can be left along with household hazardous wastes. This service is free to residents. The destination of recyclable materials collected and the issues of problem products and market forces, is described more fully in the EC Handbook on pages 13-32.

There are currently no more landfills proposed along the Swan Coastal Plain.



### Recycling Facility:

Since the closure of the Wangara Recycling Facility in late 2014 there are no council owned recycling facilities in the northern suburbs of Perth.

The collection of recyclables can be by council run services (eg City of Wanneroo, City of Perth) or contracted to private enterprise (eg Joondalup and Cambridge). Whoever collects the materials, the destination is a sorting facility where recyclables are put into bales or bins and sold to the best market options. These may be to Australian (Eastern States) or Asian markets.

It must be remembered, recycling is a business and because a material *can* be recycled does not mean it *will* be recycled.

Refer to pages 33- 44 of EC Handbook for details on products and recycling methods along with discussion on particular materials and why they may be problem products.

<http://www.mrc.wa.gov.au/Community-2/Earth-Carers-programs/Earth-Carers--Support-Material.aspx>

## Alternatives and Better Options continued/...

### **Problem Products:**

Understanding what goes in what bin is the first step, and we want to reduce what we have to dispose of. However there is a lot of 'stuff' that comes into our lives that is tricky. Paper, metal and plastic glued together, polystyrene packaging, a broken chair, a leaky kettle - the list is endless. We will discuss alternatives and where they can go.



### **Notes and where to go for more information:**

Earth Carer's handbook "*Living with Less Waste*" page 17–21. The handbook is located on the MRC website under Earth Carers support materials:

<http://www.mrc.wa.gov.au/Community-2/Earth-Carers-programs/Earth-Carers--Support-Material.aspx>



## Alternatives and Better Options

### *What happens tonight?*

- ◆ Tour of City Farm
- ◆ Organic Waste Solutions
- ◆ Green Cleaning
- ◆ Problem Products



### *Tour of City Farm:*

City Farm in East Perth highlights an example of how the wider community can respond to reducing waste by using various materials sourced locally to create beautiful soil and garden systems. The Farm is an active inner city food producing location, with training programs, volunteer options and support programs for people trying to connect to healthy ways of living their lives. Oz Harvest, a program which collects and redistributes surplus food from businesses and supermarkets, is also based at the farm.

[www.perthcityfarm.org.au](http://www.perthcityfarm.org.au)

### *Organic Waste Solutions:*

This business was originally set up in Canberra as a response to reducing business organic waste to landfill. The family business has been in Perth for some time and works by placing bins in offices in the CBD for the organic waste.

This material is collected as required or weekly. There is a small but sophisticated composting/worm farm system located close to pick up to minimise the travel requirements. In some locations an arrangement is possible for community gardens to house a large worm farm and harvest the castings in exchange of the set up space.

Organic Waste Solutions offers us an opportunity to think of alternative business possibilities to reduce waste by creating alternative pathways away from landfill etc.

[www.organicwaste.com.au](http://www.organicwaste.com.au)



### *Green Cleaning:*

By using less processed products and simple common methods for cleaning both our homes and ourselves we can make a significant contribution to reducing waste. Less packaging, less toxic by-products and usually less materials used.

There are many options available to adopt and often we are stopped by surplus of choice in making our lives simple! Basic cleaning with elbow grease, soapy water, vinegar and bi carb soda are good starters for all household and office cleaning. A few drops of your favourite essential oil in water produces a universal air-freshener.





## Communicating the Message and Implementing Better Options

### What happens tonight?

- ◆ Tour of REmida Creative Reuse Centre
- ◆ Earth Carers' Hints and Tips
- ◆ Discussion



### Tour of REmida:

REmida Creative Reuse Centre develops relationships with businesses that produce waste as part of their production processes. REmida collects these 'waste' materials and makes them available to schools and others for use in creative projects. They also run workshops and activities for schools, Early Years programs and festivals encouraging children and adults to think creatively about reusing waste materials.

[www.remidawa.com](http://www.remidawa.com)

### Earth Carer Hints and Tips:

Earth Carers who have been around a while will discuss their experiences as to how we can let others in our community know about reducing waste and dealing with what we do produce in the best way available.

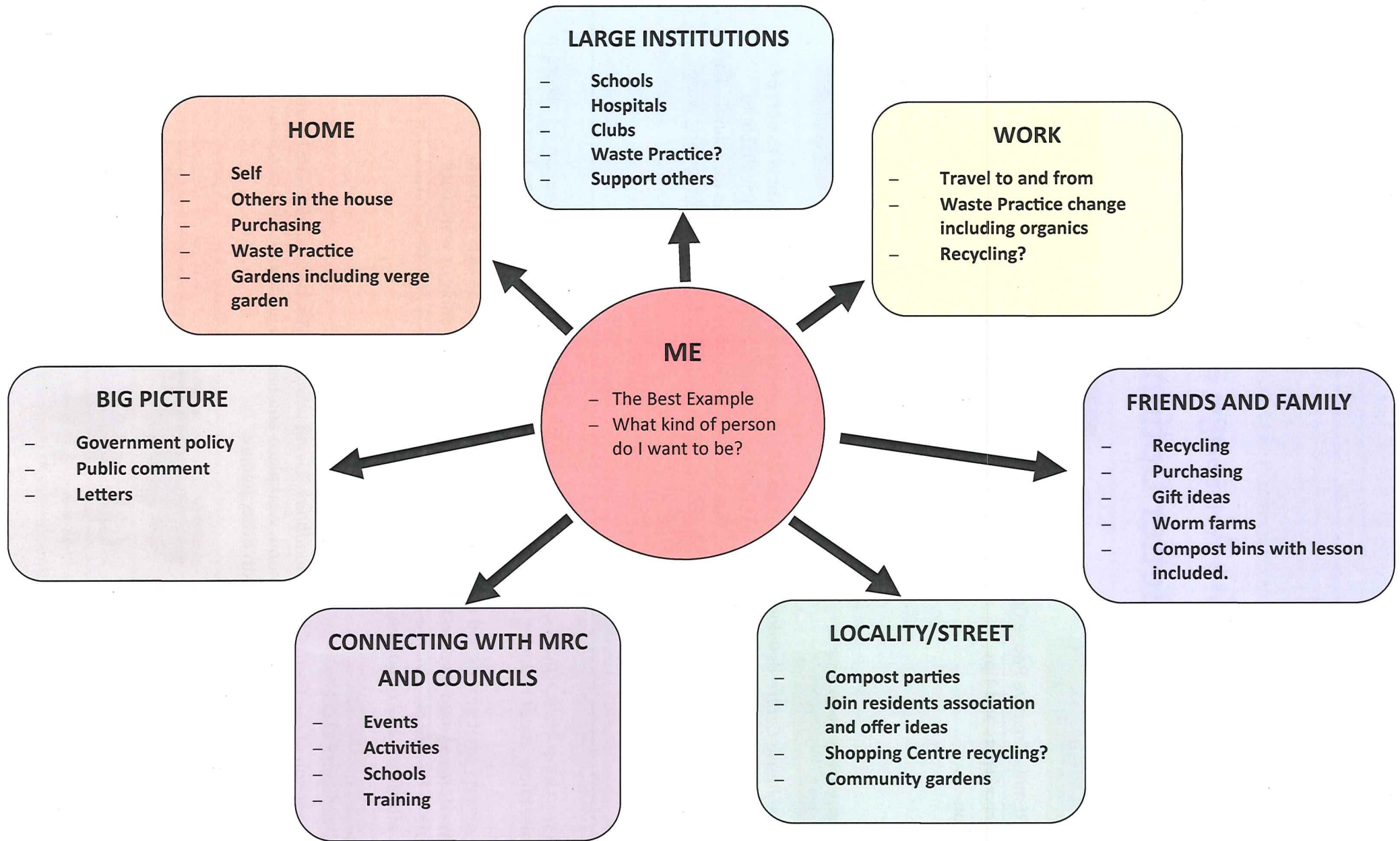
We will also discuss what groups and possibilities there are in our local area to link up with, and how we can make any changes when faced with an apathetic or disinterested family or workplace.

The *Earth Carer's handbook "Living with Less Waste"* pages 45-49 covers how to communicate with others most effectively and opportunities available for us to do this.

### What can I do now?:

The appendix section of the *Earth Carer's handbook "Living with Less Waste"* page 95-100 covers ways to link in with members of our neighbourhood, workplace and beyond, including a list of community gardens, ideas for projects and working with other people.





# How We can Communicate a Waste Message





Day 3

## Other Useful Recipes

- Mould and Mildew** Mix together 1 cup water, 3 teaspoons eucalyptus oil and 3 teaspoons vinegar, pour into a spray bottle. Spray onto mildew, wipe next day. Repeat as necessary.
- Liquid Soap**  $\frac{3}{4}$  cup soap flakes, 2 cups of water, 1 tablespoon Aloe Vera gel, 1 tablespoon almond oil, 1 tablespoon liquid lecithin, 20 drops tea tree oil. Mix until creamy and pour into pump bottle for use (change oils as required).
- Fridge Freshener** Sprinkle a few drops of essential oil of your choice (I like lemon) onto a sheet of newspaper and lay it in the bottom of the fridge – lasts up to a week.
- Mirror Cleaner**  $\frac{1}{2}$  cup water, 1  $\frac{1}{2}$  cups vinegar, and 8 drops orange or lemon or lemongrass essential oil. Give the mirror a good clean and shine. This also helps prevent misting.
- Toilet Cleaner** Mix 1 cup borax, 1 cup vinegar, 10 drops lavender essential oil and 5 drops lemon essential oil. Great for 'old' stains. Pour all the mixture into a toilet bowl and leave overnight. Flush away the next morning – no scrubbing required.
- Fabric Softener** Use white vinegar (with essential oils if you prefer) instead of fabric softener.
- Air Freshener** Fill spray bottle with water and a choice of oils.
- Insecticide** Boil 3 cups of water in pot and add 1 cup fresh tomato leaves. Remove from heat and leave to cool. Strain. Blend 1 tablespoon potato starch (potato flour) with  $\frac{1}{2}$  cup water and add to tomato leaf water. Stir in  $\frac{1}{2}$  teaspoon liquid castle soap and 5 drops peppermint essential oil. Pour into spray bottle.
- Deodorant** 10ml white vinegar, 60 ml warm water, 1 teaspoon arrowroot powder, 1 teaspoon safflower oil,  $\frac{1}{4}$  teaspoon beeswax. Stir all ingredients over low heat (Bain Marie) until warmed through. Blend and then add preferred essential oils – experiment until you find what you like.
- Perfume** Choice of essential oils (approximately 25 drops, 50 ml vodka, 5ml glycerine. Combine all ingredients, infuse in a dark spray bottle for at least 2 weeks prior to use.



## Demonstration

**Laundry/Washing Powder**

- 1 cup soap flakes (Lux)
- 1 cup pure washing soda (Lectic)
- 1 cup borax
- 1 tablespoon eucalyptus oil
- 20 drops lemongrass or lavender essential oil

Combine all ingredients & store in airtight container. You only need to use 1 tablespoon in a normal wash, 2 tablespoons for whites or very dirty clothes & I also use this to soak white school shirts & socks.

**Spray & wipe/multipurpose cleaner**

- 3 cups hot water
- ¼ cup liquid (castille) soap
- 3 teaspoons borax
- 10 drops each eucalyptus, lemon (or lemongrass) & lavender essential oils

Dissolve borax in hot water, add liquid soap and allow mixture to cool slightly. Add essential oils and pour into recycled spray bottle.

Great for kitchens, bathrooms, floors... & use as a stain remover on fabrics before washing (test first)

**Travel/kids wipes**

- 1 cup warm water
- 1 tablespoon liquid (castille) soap
- 1 tablespoon olive oil
- Few drops of lavender oil, tea tree & eucalyptus oils

Mix ingredients together & pour over into airtight container – add either thick paper towels or squares of white cotton.

For baby wipes, just leave out the essential oils.

**Shoe deodorizer**

- 1 tablespoon bicarb soda
- 5 drops lavender oil
- 5 drops tea tree oil
- 1 drop clove essential oil (optional)

Mix oils through bicarb. Put 1-2 teaspoons in each shoe & shake to spread. Leave overnight & empty out excess prior to wearing.

**Body insect repellent**

- ½ cup boiling water
- 1 tablespoon vegetable oil
- 1 tablespoon eucalyptus oil
- 1 teaspoon tea tree oil
- 1 teaspoon lavender oil
- 1 teaspoon Epsom salts

Combine all ingredients, cool & pour into spray bottle. Shake well before use.

Tried, tested & recommended from the harshest of conditions – Tamala Park tipface ☺

**Body moisturiser/baby lotion/after sun**

- 500ml aloe vera gel
- 5g beeswax
- 2 tbspn each liquid lecithin & glycerine
- 2 tbspn each avocado oil & safflower oil
- 1 tbspn vitamin E oil
- Choice of oils (80-100 drops as a guide)
- (sandalwood, rose geranium, lavender – ladies)
- (black pepper, rosemary – gents)
- 100-200ml water – to desired consistency

Place all ingredients, except essential oils, into glass bowl over a saucepan containing boiling water.

Gently heat and stir until the wax has dissolved, remove from heat & whisk well for 2-3 minutes. Whisk in water a couple of tablespoons at a time until moisturiser is your desired consistency.

Stir in essential oils (or omit if using for baby lotion).