

# 16 May 2005 - Mosman Park

## ***MAR for environmental benefits***

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### **Benefits**

- Reduce fluctuations – on environmental resources.
- Moral obligation – not to waste water.
- MAR – education resource.
- Keep a balance – saltwater intrusion.
- Reduces pressure on current resources and horticulture – protection of amenity.
- Buys time for population policy in place.

### **Risks or Concerns**

- MAR encourages population growth.
- Does not encourage conservation.
- High levels of nitrogen and phosphorus to native vegetation (wetland ecosystems).
- Public education – can be misunderstood.
- Need to be education programs put in place.
- Caves (stygo fauna) are good bio-indicators of surface water.
- Not occurring soon enough.

### **Further Information Required**

- How does aquifer recharge occur on this region – pilot study into retro-fitting for recharge/infiltration.
- Education
- Other agencies demand on water e.g. Pine plantation on Gngangara mound.
- Current (and ongoing) environmental research – fauna/flora
- Historical land use and what impacts has this had on ground water.

## ***MAR for General Re-use or Multiple Benefits***

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### **Benefits**

- Avoid waste.
- Reduce demand for bores.
- Bores reduce pressure on potable supply.
- Health/amenity benefit of adequate parks and gardens.
- Maintain viability of bores.
- Injection close to sea “more acceptable” than injection to Gngangara (“yuk” factor avoided).

## **Further Information Required**

- In future, invite senior high school children to attend forums.
- Why are we putting **any** wastewater (including stormwater) into the sea?

## ***MAR for Drinking Water Supply***

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### **Risks or Concerns**

- Perception of drinking toilet water.
- Need for education on:
  - OK to drink.
  - Proper management to ensure health standards are met.

### **Further Information Required**

- Why is it ok to discharge secondary treated water to ocean but not tertiary treated water to aquifer (perception).
- How much is used by each user group? e.g. Industry.
- Impact of “business as usual” is unsustainable.
- Education is key to acceptance.
- Cost? 50-100% more of \$2 a litre for bottled water “sounds reasonable”.
- Need “whole system” approach.

### **Additional thoughts**

- An education program for the general public on water issues.
- Pharmaceuticals “buy back” scheme.
- Why is it acceptable to throw it in the ocean?
- Public perception – you can do it in the country – education program.
- Get school teachers on side, kids influence parents.

## ***MAR for Irrigated Horticulture***

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### **Benefits**

- Benefits for horticulture (public open spaces considered a form of horticulture)
- Salt water intrusion (reducing)
- Providing a resource of better quality.
- Frees up water for other uses.
- Long term sustainability.
- Economic.

## **Risks or Concerns**

- Effects on existing groundwater/environment
- DoH standards – high costs?
- Lack of scientific data.
- No trials – need:
  - Field trials
  - Scale
  - Chemical reactions
  - Trials at all proposed sites

## **Further Information Required**

- Costs and who pays?
- Cost – benefit analysis.
- Who initiates?
- Lack of commitment to carry out such a scheme.

## **Other**

- State of the water/health (contamination etc)
- Suitable size trials – must be site specific.
- Lack of data when generating EPA/DoE guidelines.

## ***MAR for Integrated Water Management in New Residential Areas***

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### **Benefits**

- Possible cost (financial) benefits.
- May be able to introduce legislation to enforce integrated water management in new residential areas – developers are not going to comply unless they are forced to.
- Possible use of rainwater – benefits from being able to plan the necessary infrastructure.
- Increased planning for new designs and technology (eg. Planned public spaces) – keeping potable water and stormwater separate – sustainable living.
- Reducing overall energy consumption.
- Increased awareness and education of new residents which is transferable to other communities as they move. Increased awareness of water value as a resource.
- All aspects of water use can be considered – irrigation/gardens (waterwise)/education.
- Right resource - right use.

## **Risks or Concerns**

- Health:
  - Health risks may outweigh potential environmental benefits.
  - Can we manage the possible health risks of domestic use?
- Unknown chemicals – question of unknown health risks.
- Legal liability of using the water.
- Prohibiting private bores – only licensed private bores.
- MAR and bores need to have integrated management
- Over use by private bores (people need to pay real cost of water, environmental cost) – restrictions for bores.

## **Further Information Required**

- What's possible, what's required?
- How much do these methods cost?
- More diagrams may help – a flow diagram to explain integrated water management.
- More examples of how this would work.
- Other options and alternatives – Water Corp. inject, others withdraw.

## **Other Issues**

- Rain water use in new and exciting residential areas.
- Overall sustainable living – this is just one aspect.
- Banning all watering in Winter months.

## ***Other comments made at the forum***

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- Treatment costs should be considered together with transport costs (often treatment is reported alone)
- The energy intensity of various water supply options should be considered - current system is very high. As energy prices increase, this will have implications. Energy costs associated with proposals should be reported.