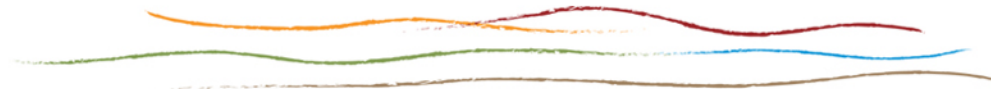


Construction and Demolition Waste Recycling

*Processes, Issues and Controls: A South Australian
Environmental Regulatory Perspective*

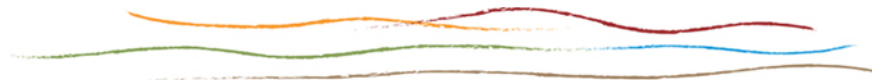
S. Sergi & A. Lewis
Environment Protection Authority, South Australia

because the environment matters



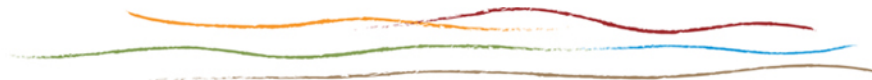
OVERVIEW

1. Waste
2. The Environment Protection Act 1993
3. Processes
4. Issues
5. Regulatory Approach
6. Waste Reform Project
7. Waste Derived Fill Protocol



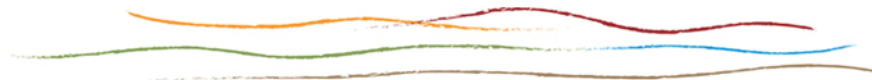
1. WASTE

- Waste definition - Part 1 of the EP Act
 - (a) any discarded, rejected, abandoned, unwanted or surplus matter, whether or not intended for sale or for recycling, reprocessing, recovery or purification by a separate operation from that which produced the matter; or
 - (b) anything declared by regulation (after consultation under section 5A) or by an environment protection policy to be waste, whether of value or not;



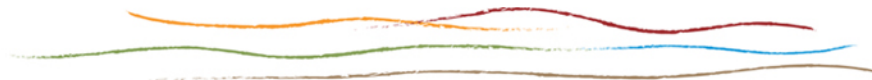
WASTE cont...

- The status of a material as a waste (which includes by-products or left over surplus materials) is determined at its place of generation and is not dependent on:
 - if the waste is wanted
 - if the waste is intended or capable of being reused, recycled or recovered
 - if the waste has value or may be sold or traded
 - if the recipient of waste asserts that the waste is a resource.



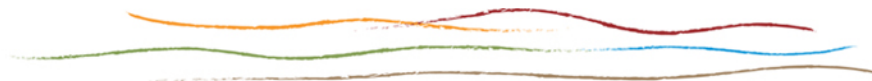
2. THE EP ACT 1993

- Objects of the *Environment Protection Act 1993* - section 10
- General Environmental Duty - section 25
- Requirement for licence - section 36
- Schedule 1 Activities of Environmental Significance
 - 3(3) Waste or recycling depot (receive, store, treat or dispose waste)



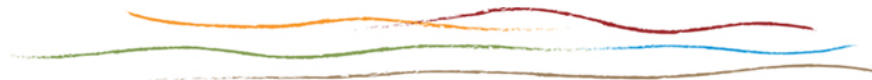
3. PROCESSES

- Licences are used to minimise and control impacts on and emanating from a site
 - noise, dust, waste, odour etc
- Environmental Nuisance
 - any adverse effect on an **amenity value** of an area that is caused by **pollution** and unreasonably interferes with or is likely to interfere unreasonably with the enjoyment of the area by persons occupying a **place** within, or lawfully resorting to, the area; or
 - any unsightly or offensive **condition** caused by **pollution**



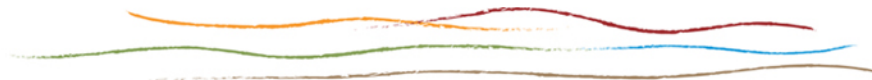
4. ISSUES

- At what point does a waste become a suitable recycled product?
- What is the waste management process and the process to demonstrate suitability and product quality?
- Perception is inert concrete bricks etc... But increasingly mixed loads, potential for contamination such as by chemical substances in soils, asbestos, other wastes



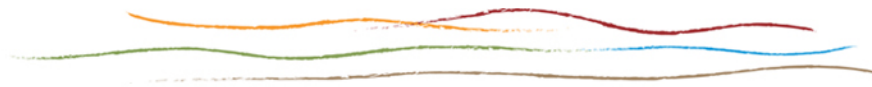
ISSUES cont...

- Risks to environment and human health
- Reducing potential future use of land by reduced environmental quality
- Potential generation of new site contamination
- Removal of contamination from environment to reduce overall risk and not simply moving the risk to another location
 - Objects of the Act: include to enhance the environment, continue to make improvements to processes as they become available, take measures to reduce, eliminate and prevent harm



ISSUES cont...

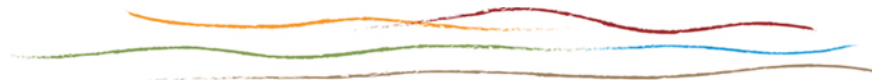
- The challenge is to ensure that the recycled products industry can overcome these issues
- Fundamental processes and procedures include:
 - Promotion of source segregation
 - QA/QC including for:
 - Receival - inspection and acceptance of loads
 - Rejection of loads
 - Product quality
 - Isolation and management and disposal of contamination, not dilution



5. REGULATORY APPROACH TO USE OF RECYCLED MATERIAL

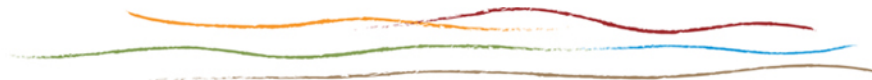
In addition to Act and the GED, Objects and authorisation requirements

- Offences eg:
 - Operating without licence
 - Causing environmental harm
 - \$500,000 - body corporate
 - \$250,000 or imprisonment- Natural Person or both
- Waste to Resources EPP (draft), includes
 - Certain Material Declared to Be Waste - clause 4
 - Unlawful disposal waste - clause 10
 - Addresses illegal dumping



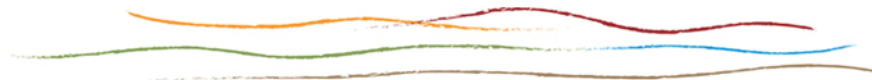
6. WASTE REFORM PROJECT

- EPA Board Subcommittee Report
- Waste Reform Project, includes
 - Guiding Principles - Recycled products
 - *GP1 EPA will support and encourage the use of the waste hierarchy*
 - *GP2 EPA will take a risk-based approach to regulation*
 - *GP3 EPA will seek to maximise resource efficiency and will require appropriate quality assurance and quality controls*
 - *GP4 EPA will ensure a consistent approach to regulation is implemented*
 - Protocols for Waste Derived Products
 - **Waste Derived Fill**
(Refuse Derived Fuel, Waste Derived Soil Enhancer, and Stockpiling Guideline)



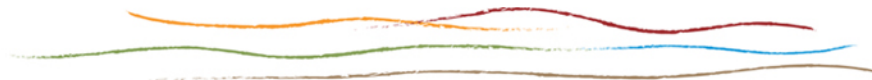
7. WASTE DERIVED FILL PROTOCOL

- Guiding Principles
- Reuse QA/QC and approvals processes for soils, recycled products and mineral based solid inert Industrial residues
- Criteria
 - Baseline: Waste Fill - broad use
 - Up to Intermediate disposal criteria for site specific uses - provided that an auditor is engaged to define criteria, produce a site audit report and declare the site is suitable for use and that no harm will be caused
- Recovered Products Plans for recycling facilities and industrial waste producers



7. WDF PROTOCOL cont...

- Use of Fill from Potentially Contaminating Activity means destination is now PCA - declare on title (Site contamination Regulations)
- Audit reports on public register and title of land
- Any environmental assessment report needs to be declared - vendor Form 1 questions, section 7 of the *Land and Business (Sale and Conveyancing) Act 1994*



Contacts:

- Marina Wagner - Manager, Waste to Resources Branch
- Steve Sergi - A / Principal Advisor, Waste Management
- Anne Ellson - Project Manager, Waste Reform project
- Amanda Lewis - Principal Advisor, Waste Reform Project
- Andrew Pruszinski - Principal Advisor, Site Contamination

EPA Links:

- Waste home page (<http://www.epa.sa.gov.au/waste.html>)
 - Waste Reform Project (http://www.epa.sa.gov.au/waste_reform.html)
 - Guideline Principles (http://www.epa.sa.gov.au/pdfs/waste_principles.pdf)
 - Protocols (links to drafts for consultation) (http://www.epa.sa.gov.au/waste_materials.html#guiding)
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