Submission to the waste generation and resource efficiency paper due February 2006

From Ms Lyndall McCormack

I wanted to say that I am not an academic I am considered disabled and work casually for a market research company called Dangar Research group Pty Ltd since December 1992 I joined that Waste Crisis network a community committee of the Nature Conservation Council of NSW and later it changed it name to the Zero Waste Action Group previous to this I worked with the rainforest Information Centre and the Big Scrub Environment Centre and the Brunswick Valley people for Peace all this work as a volunteer. I also know volunteer with the Revive program at the Prince Of Wales hospital in Sydney and I am trying to start a Sustainability club in my area because I feel It is important. And I am the secretary, I am a parishioner of the Padstow Church Of England. I have been given a lecture from a past executive manager of the New South Waste State Governments Environmental protection Authority and it was made quite plain to me that members of the community have to be drivers for change and so Here I will try to be. very few of my colleagues receive payment for what they do. I once worked as the Waste Campaigner for Friends Of The Earth Sydney But their was no money to pay me so I didn't work their for very long. My group Has never had a lot of funding given to it and we can only do the best we can at the time. I will just answer how I wish to not necessarily according to the questions you have asked. I thank you for the information you have shared with us in the paper I have received from the Productivity Commission I am assuming that this effort arises from this Paper by the Department of Environment and Heritage .When I first stated reading your questions I thought the people dealing with this submission could very well have no idea that waste is a wealth stream and have no idea of the publications about it so I have decided to show you only a smidgen of the information that is available forgive me if it doesn't read as you might hope but it is they way my mind developed around this issue. I will make my comments in point form and typed in Arial point 12 font.

http://www.deh.gov.au/settlements/publications/waste/mbi/study-2003/pubs/study.pdf

(1) I would like you to establish a national network of environmental audit committees for waste generation and resource recovery reports and statistics (this may already exist I don't know) to identify how reductions in waste consumption can be made

http://news.envirocentre.com.au/eb/newsletterfull.php?issue=2005-05-25&key=134

National Affairs

World-first report analyses the TBL of the Australian Economy
A world-first report, providing a detailed `triple bottom line' overview of the 135 industry sectors of the Australian economy using a set of ten environmental, social, and financial indicators, has been released.

The report, undertaken by CSIRO Sustainable Ecosystems and the University of Sydney, uses the indicators of water use, land disturbance, greenhouse gas emission and energy use, profits, exports and imports, employment, income and government revenue to provide a snapshot of the triple bottom line performance of the Australian economy in the mid 1990s (the most recent data available to the researchers).

The report highlights sustainability challenges for different industries and pinpoints areas in the production chain where a focussed effort would make a significant difference.

All effects are referenced back to a consumption dollar – roughly the dollar spent by a consumer in everyday life. It also shows that each consumption dollar is quite different – some dollars are positive and create employment, or suck in imports or generate government revenue. Other consumption dollars are less positive through their high use of water or production of greenhouse gas emissions.

Comparitive assessments are provided for each sector for performance against each indicator compared with the national average.

The analysis for the sheep and shorn wool industry, for example, concludes that against the metric of one dollar of final demand, the environmental indicators of greenhouse emissions and water use are about seven times the average, while land disturbance is 50 times the average.

For the rice industry, the water intensity of production is over 200 times the average or 8400 litres per dollar of final consumption; the greenhouse intensity is over four times the average due to methane production as well as fossil energy use; and land disturbance is 40% above average.

For wheat and other grains, the environmental indicator of greenhouse emissions is equal to average, while water use and land disturbance are respectively five times and eight times the average. The report notes that this sector is by definition a large user of land and could never equal the economy wide average.

" Nevertheless there is room for improvement particularly in balancing crop production with area sown, management applied and nutrient inputs. Leading edge management may allow a doubling of per hectare yields and a consequent halving of total area sown."

One of the major insights emerging from the analysis is that the prices paid by consumers pay for items derived from primary production does not reflect the full value of the natural resources embodied in their production chains. This issue is reflected in the current debate on national water resources reform with calls for consumption-based pricing, full cost recovery pricing for water services, and the implementation of pricing that, where feasible, includes externalities (CoAG 2004).

The analysis seeks to underpin broader societal calls for industry, government and institutions to make decisions on a broader basis than just the financial bottom line.

The report, *Balancing Act*, can be downloaded at
http://www.cse.csiro.au/research/balancingact/#aboutreport

(2) As this is already happening ,establish a system of Future funds so that Industries can increase the body of knowledge of their industries waste streams management for example http://www.tarac.com.au/home.asp Make sure there all registered with a national environmental accounting scheme so they can be tracked.

(3) As a Priority improve wastewater treatment plants and reducing the quantity and quality of effluent discharged to coastal waters. For example, the Australian Government Clean Seas Program aims to reduce pollution of coastal, marine and estuarine environments by wastewater discharges through increased reuse. The marine disposal of water is increasingly less acceptable because of concerns associated with contamination of bathing waters and aquatic ecosystems, community concerns, and limits on land waste disposal options in coastal areas
http://www.aph.gov.au/library/pubs/RB/2005-06/06rb02.htm#eva

(4) Create a National Resource Recovery Training Board to work in with all Committees as mentioned above and endorsed by a National Training Framework Committee, which leads to an Australian Qualification framework to work on national waste generation and recourse recovery Issues if their isn't already a training package available.

http://www.uneptie.org/pc/cp/library/training/cdgpack/cpsc.htm

(5) Look at treated Timber in Schools
http://www.uow.edu.au/arts/sts/sbeder/CCAtimber/CCAreport.pdf

(6) Do all resource recovery projects need a green globe accreditation?

(7) Nationally I would like green spot or Dot as in the German Dualese system In terms of trade we would like you to lobby for E.P.P's Environmentally preferred products and that would be recycled goods and goods with a eco label or products that use full life cycle analysis
http://www.lceresearch.unsw.edu.au/
http://www.ictsd.org/pubs/dohabriefings/Vol3/V3_09.pdf There was DFATT Guidelines for negotiating free trade agreements that came out in 2005 I think you should have included EPP's
http://www.northwestwatch.org/publications/CS_news_10_05_green.asp

(8) We need to decouple economics from the environment

(9) We need a national waste strategy revised each state should have one and then do a report and then the national body should look at all those reports and print a national one also looking at the State of The environment report and the national pollutant inventory

http://www.mst.dk/homepage/default.asp?Sub=http://www.mst.dk/udgiv/Publications/2004/87-7614-249-3/html/apb_eng.htm

(10) EPR seems if it is mandatory seems it does provide positive impacts for the environmental design strategies of manufactures where it is based on individual forms of responsibility

http://beids.tec-hh.net/beids_archive/russian/sustainable/showall.php
http://www.adamsmith.org/blog/index.php/blog/corporate_social_and_responsible/

(11) Just reminding you of the fact that our government signed the Stockholm Convention and we should be looking at innovations in this issue

www.deh.gov.au/industry/chemicals/international/pop.html

(12) My group did ask for an independent review of Container Deposit legislation .Please read it I believe it advocates Extended Producer Responsibility and we should try to find out any innovations in this so it can be successful

INDEPENDENT REVIEW OF CONTAINER DEPOSIT LEGISLATION IN NSW
... Institute's Director, Dr Stuart White to conduct an Independent Review of Container Deposit Legislation ... Recycling) in their report Understanding Beverage Container Recycling . The ...
www.isf.uts.edu.au/CDL_Report - 10k - Cached - More pages from this site
http://www.global.rmit.edu.au/resources/packaging_industry040902.pdf

By January 2005, producers and importers would be required to recover 75 percent of other bottles for reuse or recycling. In addition, the proposal would levy a 22-cent deposit on aluminium cans, single-use polyethylene terephthalate (PET) bottles, and glass bottles to encourage reuse and recycling. WHAT HAPPENED!!!!!!

(!3) Can you reflect on the Zeri Vision
http://www.zeri.org/index.cfm?id=vision&CFID=750524&CFTOKEN=73802548

(14) I am not sure if this MRF facility was approved that is mentioned in this web page bur the submission certainly gives you
a wonderful piece of information, my group would also like you to consider eliminating mercury from the supply chain and innovations to do that
http://www.lead.org.au/submission_to_nsw_dipnr.html

(15) In the end we need to accept and include and acknowledge environmental journalism. It shows us the popular culture and thinking of our time
http://www.eep.org/newsletters/newsletter010403.htm
http://www.abc.net.au/rn/features/worldwaste/

(16) In Sydney on my last count we have 4 million tones of waste that go to landfill every year. I don't know about the other cities I don't live in them and we would want it banned from landfill now especially putrescible waste. This web page says that each year in Sydney alone
http://www.bml.csiro.au/susnetnl/netwl54E.pdf

650.000 tons of processed green waste and 40.000 tons of bio solids and a 130.000 tons of food processing waste

(17) Each M.R.F in Sydney I feel maps different resources but also uses and sells other residual resource products ,at Bankstown in Sydney we do paper at Eastern Creek they map plastics bags and another Materials Recovery facility group does glass, very clever of them and I know that our Waste Service does want plastic eliminated from the waste stream or at least they did, you can do that all over Australia if you wish

(18) I asked the NSW Government to ask the National Packaging covenant people these questions I didn't get them answered and thought personally if they couldn't answer this on a national basis then nothing could be measured properly. Can you answer them for me through your inquiry

What is the total industrial production of the signatories to the packaging covenant in N.S.W.
What were the net new orders of durable goods made by the signatories to the packaging covenant in NSW?
What was the order inflow or demand tendency of the signatories in NSW?
What is the finished goods and stocks level of the signatories in NSW?
What is the unit labour cost for all signatories in NSW?
What is the inflow of all export orders for the signatories in N.S.W
What sustainable development outlook. for the signatories to the covenant in NSW???
How have they proved that they have improved productive and allocative efficiency that benefits consumer, environment and economy as a whole in NSW

(19) Please take note of this web page and all papers written by this group it is its own powerful partnership http://www.boomerangalliance.org/

(20) Here is the web link to the group I am member of NCC Zero Waste Action Group
http://www.nccnsw.org.au/waste

(21) When we discussed composting standards for bags we made it quite clear that plastic wasn't acceptable in compost even small minute particles it is believed it is still hanging around for a thousand years and that definitely breaks the Intergenerational Principle as far as I am concerned. We already know Aldi the supermarket chain use starch bags and a standard to compost those would be great but to use other crop grown materials, you would need to see how much water was used in their production and also we wouldn't want to encourage materials that would come from GM seed.
I am not sure about this product for example
http://www.polargruppen.com/biobag.htm

Please note at this web site that the Plastics Industry are on page 12 committed to the elimination of plastic waste from landfill
http://www.pacia.org.au/_uploaditems/docs/15.PACIA_AnnualReport0304.pdf
I also wish to say here my group would not want a landfill a new on to make Methane or any GHG's we would like all materials banned to landfill now if it were possible ,I wouldn't like the waste hierarchy to have disposal as its last option at all it should be a circular economy and a circular heirachy

http://www.parliament.nsw.gov.au/prod/parlment/publications.nsf/0/13E8453B8E0633AACA256ECF00099041

http://www.resource.nsw.gov.au/data/Catchmanagent05363.pdf
http://www.resource.nsw.gov.au/data/catchment_fieldday_100604.pdf
http://www.resource.nsw.gov.au/data/Salinity_report.pdf
http://www.resource.nsw.gov.au/data/020903%20Stormwater%20Report%20final%20so.pdf
The Sydney Catchment Authority in Table 5.1 in this document says waste disposal is a pollution risk
http://www.sca.nsw.gov.au/publications/files/pollutionsource.pdf
Also the lead group http://www.lead.org.au/bblp/Green_lead/cpcorporate.html

http://www.consumer.gov.au/html/download/Strategic_Agenda_2_Sept_2005.pdf
The benefits of recycling and other benefits and pieces of information can be read in these papers

http://www.resource.nsw.gov.au/data/Benefits_of_Recycling_(2005).pdf
http://www.resource.nsw.gov.au/data/Benefits_of_Recycling-Summary.pdf
http://www.environment.nsw.gov.au/waste/residue/genexempts.htm
http://www.environment.nsw.gov.au/waste/residue/genexempts.htm
http://www.parliament.vic.gov.au/paec/inquiries/reducing-landfill/PAEC-55_AG-65-ReducingLandfill_2004-04.pdf
http://www.resource.nsw.gov.au/data/Market-Organics%20Full%20report%20part%203.pdf
http://www.napswq.gov.au/mbi/pubs/interim-report.pdf
http://www.resource.nsw.gov.au/data/strategy/Progress%20report_web_inc%20cover_V2.pdf
http://www.assa.edu.au/publications/Dialogue/dial32005.pdf
http://sos2005.greenash.net.au/download/sos2005program.pdf
http://www.industry.gov.au/assets/documents/itrinternet/EIAADiscussion2000.pdf
http://www.environment.nsw.gov.au/resources/etar2004.pdf
http://www.impactenviro.com.au/BuyingGreen2004/BGProgram.pdf
http://www.pb.com.au/bulahdelah/pdfs/tech/T10_Energy_Waste_Demand.pdf
http://www.pb.com.au/bulahdelah/pdfs/tech/T10_Energy_Waste_Demand.pdf

http://www.health.gov.au/internet/wcms/publishing.nsf/Content/BEF81E3E1A60B229CA2570DF0003E38E/$File/facilities-reviews.pdf

http://www.dest.gov.au/NR/rdonlyres/504670A4-6784-45BE-A823-C66BA1DCBF7C/1939/Australian_Industrys_Sustainable_Competitiveness.doc
http://www.wasteandrecycle.com.au/communique06.html
http://www.gmi-mr.com/gmipoll/press_room_wppk_pr_09192005.phtml
http://www.minerals.csiro.au/sd/pubs/recycling_report.pdf
http://www.crca.asn.au/activities/2005/ScienceinAction04.pdf
http://www.dfat.gov.au/trade/negotiations/environment/
http://www.lgat.tas.gov.au/webdata/resources/files/greenwaste_may2005.pdf
http://www.aiia.com.au/i-cms.isp?file=139/DFEReportNov02.pdf
http://www.impactenviro.com.au/waste2004/waste2004_web.pdf
http://www.epri.com/portfolio/product.aspx?id=1157

http://www.chinacleanenergy.org/docs/cleanpower/Coal%20gasification%20polygen%20report%20English-9dec04.pdf
http://muse.widener.edu/~sxw0004/abstract24.html
http://www.cslforum.org/documents/TSRAppendix2003.pdf
http://www.zerowaste.sa.gov.au/pdf/analysis_levies_report.pdf
http://www.efa.com.au/Library/WasteToEnergyGuide.pdf
http://www.wfa.org.au/PDF/AWIS%20sysmap.pdf
http://www.packcoun.com.au/homepage/pressRelease/Covenant_approval_9June05.doc
http://ceda.com.au/public/publications/ace/docs/ace_200412.pdf
http://www.unsw.edu.au/news/pad/uniken/uniken0510/uniken28_LR.pdf
http://www.fwprdc.org.au/content/pdfs/PN05.1017.pdf
http://www.environmentbusiness.com.au/summit2005/7ProtectingNationalProsperity.pdf
http://www.environmentbusiness.com.au/summit2005/7ProtectingNationalProsperity.pdf
http://www.rirdc.gov.au/comp04/npp2.html
http://www.dest.gov.au/NR/rdonlyres/FA069172-758D-4332-88A0-81BAFA20DE02/8626/BiodiscoveryFINAL1.pdf
http://www.aph.gov.au/house/committee/environ/cities/report/fullreport.pdf
http://www.parliament.vic.gov.au/enrc/inquiries/sustainablecommunities/ENRC-Report_SustainableCommunities_2005-06-14.pdf
http://www.eng.newcastle.edu.au/news/2005EBENewsAug.pdf

http://www.asen.org.au/Resources/Uni_Climate_Guide_Australia.pdf
http://www.zerowaste.sa.gov.au/pdf/waste_strategy/zw_waste_strategy_final.pdf
http://www.dpmc.gov.au/biofuels/submissions/submission38.doc
http://www.accg.mq.edu.au/apcea/vol9_3.pdf

(22) We have a problem with fertilizer in this country and the article here from this web page http://www.otcbb.com.au/5otcNews5.html

D-101-AER is an emerging $50 million dollar industry is about to be spawned globally. The real money in garbage today is from assured revenue streams from Council and Municipalities payments for refuge recycling to end their problem. Most city tips are near full and environmental issues of ground water seepage, odour and visual mess is forcing Governments to change direction in treatment

alternatives. All cities have a growing problem, since for every one million people in Australia produce 2,000 tonnes of household garbage per hour every hour, every day. A city the size of Melbourne produces organic waste of about 200,000 tonnes every day, now imagine New York or Tokyo's problem with over 10 million inhabitants. Garbage to compost is a well known formulae and process, however the problem was to design a machine and system with a technique to handle volumes from 2,000 to 10,000 tonnes per hour. Version 3 production prototype achieves this, in fact the company is planning to build a larger machine to handle big city refuge capacities of 14,000 tons per hour.

(23) The ACCC has now allowed collective tendering for provision of waste Services please consider this http://news.envirocentre.com.au/eb/article.php?issue=2005-05-11&id=565&key=78

(24) Emissions are waste and gases are emissions take look at innovations to reduce emissions at the Hazelwood Power plant with innovations http://news.envirocentre.com.au/eb/article.php?issue=2005-05-11&id=565&key=78

(25) I feel this paper is important and can you carry out a further literature review on the subject of Oxygen demand in waste streams

shttp://www.rmit.edu.au/browse?QRY=SIMTARGETS%3D"a19hbol96uif1""""""""""#7
A Study of the Measurement of Oxygen Demand in Waste Streams

(26) Here is an example of Aus industry thinking beyond the square but I am not sure that people who live on alternative communities in NSW think this is healthy for keeping their drinking water in. I don't because I have read articles in the new scientist about risk assessment and plastics although I know some of our Professors in NSW health say it isn't a major hazard at the moment. Glass is the healthiest container to drink from http://www.ausindustry.gov.au/content/content.cfm?ObjectID=3741AFDF-9EDC-4543-AB2C5F52A17C52ED&L2Parent=&L3Parent=BEDA1BF8-88E5-48D1-B07559AC87C114C8

(27) Please can you purchase the papers from this conference and read them as my group cant afford to do so I feel we should be reducing waste in all parts of the product chain and these are the people to influence in that way

http://www.oscm2005.org/

(28) To me waste now is about emerging technologies and they are probably locked up within universities, it is selling those technologies to the world if we do it better in going beyond zero waste Please take notice of this we need a nationa program for zero waste

http://www.grrn.org/zerowaste/demoschap14.html

A programme for zero waste

1. The economic playing field must be rebalanced. The hierarchy of profitability must match the environmental hierarchy. This can be done by **revising waste taxes and public benefits** in three ways:
    - introducing a disposal tax that reflects the environmental hierarchy
    - cutting the subsidies presently given to incineration
    - introducing a price guarantee scheme for recycled materials to fund the build-up costs of four stream recycling.

2. The £550 million raised in waste taxes must be re-channelled to a **Zero Waste Fund**. This requires:
    - a change in the landfill tax regulations so that the 20 per cent offsets are paid into the publicly-run recycling fund
    - earmarking a further 20 per cent to support employment and environmental goals through recycling
    - amending the packaging recovery regulations so that payments by the 'obligated parties' are channelled to recycling collectors.

3. Establishing a **Zero Waste Agency** to administer the transitional funds and 'animate' the change.

4. Founding a new type of **Green Academy**, equivalent to the German technical schools of the mid-nineteenth century. It would be charged with developing organisational forms, knowledge and skills relevant to zero waste, and new ways of generating 'distributed intelligence'. Its curricula and priorities would be set by the needs thrown up by the new environmental systems. Hence its research, teaching and skill formation would be linked closely to ground level projects - following the approach of the Ulm School of Design - and provide learning resources to those in or outside employment.

5. Appointing **Zero Waste Advisers** - some recruited from leading recycling and reduction projects overseas - to advise on recycling schemes and projects. The group would be part of an international network, promoting

exchanges and part-time attachments, and linking into practitioners' associations.

6. The launch of a **'Closed Loop Industrialisation' Initiative**, promoting the development of secondary materials industries, ecodesign and hazard reduction technologies. In addition to material productivity, it would aim to promote 'de-scaling' technologies suitable for local and regional economies. It would be organised in conjunction with regional development agencies.

7. The extension of **producer responsibility** into new fields, not only electrical and electronics appliances, end-of-life vehicles and tyres, but other durable equipment, newspapers, and hazardous products and materials. The weight of responsibility should be placed at the point of product and process design, since they have the greatest capacity to develop alternatives. In each case, the finance contributed by producers should be re-channelled to develop the alternatives.

8. **Devolving responsibility for waste disposal to districts**, through direct payments for the costs of disposal (rather than property-based precepts) and giving districts responsibility for identifying and negotiating disposal options within their own boundaries or with neighbouring districts. This would represent the proximity principle with teeth.

9. **Restoring public confidence in waste management and democratising risk** through: planning reform to give financial support and access to information to civil groups and neighbourhoods affected by waste proposals; a new culture of openness in regulatory bodies; an independent waste hazards control advisory body; and an environmental freedom of information provision.

A govemment-led commitment to the zero waste target 'within a generation', reflected in the above measures and the adoption of tighter targets to 'reduce with the aim of eliminating' mixed waste disposal by 2010. This would include a phased ban on organic waste in landfills and on landfilling or incinerating hazard-producing materials, and a moratorium of new mixed waste incinerators for five years.

(29) Could have a green roofs program nationally please read the article posted here

Green Roofs Come to Australia

Green Roofs for Healthy Australian Cities (GRHAC) is a new organisation for Australia's built environment professionals.

It has begun under the umbrella of the Urban Agriculture Network - Western Pacific, a non-government, non-profit organisation that is an offshoot of the Urban Agriculture Network in Washington DC.

The Governor of GRHAC is Geoff Wilson, president of the Urban Agriculture Network - Western Pacific, based in Brisbane, Australia. He has set up the green roofs organisation in Australia following attendance at the "Green Roofs Goes to Washington" conference in May 2005.

Steven S Peck, founder and president of Green Roofs for Healthy Cities - North America, encouraged the Australian development, and is planning to visit Australia in 2006 for green roofs seminars to help promote Australian membership. He will be accompanied by Jennifer Sprout, conference and events manager of the North American organisation.

Mr Wilson said that he will be promoting membership of GRHAC among architects, urban developers, urban planners and designers, horticultural contractors, municipal government, State and Federal advisers in greenhouse gas and city heat island effect mitigation and news media in these fields.

He hopes to attract significant Australian participation at the Boston green roofs conference in May, 2006, and expects to organise Australian events where GRHAC members can learn about European and North American technology and design for green roofs that can be adopted or adapted for Australian conditions. These vary from the cold-temperate to the sub-tropical and tropical and the arid.

"I believe that there will be great scope in Australia for collaboration with European and North American companies providing specialised know-how and products," Mr Wilson said.

He would like to hear from companies wanting to promote their businesses in Australia and the Western Pacific generally.

Also, he expects Australian innovation to develop green roof technology well suited to world markets, especially in one important aspect of green roofs - food from the roof via hydroponics and aquaponics. "This is where the Urban Agriculture Network connection will be important," Mr Wilson said.

Contact: Geoff Wilson, Governor, Green Roofs for Healthy Australian Cities
32 David Road, Holland Park 4121, QLD

geoff@nettworkx.info
07 3411 4524

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(30) We need a green procurement data base http://www.greenprocurement.org/

(31)I think it is important to take notice of the Buy Recycled Business Alliance to do a submission

http://www.brba.com.au/

(32) Take note of the National Local government resolution

http://www.lgfocus.com.au/editions/2005/december/resolutions.shtml

Resolution: 39

Category: Environment

Council: Municipal Waste Advisory Council
That the delegates of this National General Assembly call on the Commonwealth and State Governments to develop a comprehensive approach to ensuring appropriate industry involvement in the management of their products at end of life, based on the following:

1. Overarching objectives for the management of end of life products in general
2. A co regulatory framework for product stewardship
3. A framework within which extended producer responsibility schemes can be introduced and coordinated at a national level
4. Clear guidelines to establish the interaction between the two frameworks.

Carried

(33) Please consider these issues from the Society of Responsible Design

http://www.green.net.au/srd/

Here are many ideas to consider that can reduce your environmental impact and achieve better practice. Try : the REAP guide for Eco paper info. and ideas.
We welcome input from all related Visual fields to increase the body and value of ideas for all to benefit:

- **Strive to create the greatest visual impact with the least environmental impact**
  Achieving clients needs while limiting potential ecological damage
- **Encourage their clients to consider the environmental impact of their production**

Educated clients are more willing to undertake ecologically sound projects

- **Consider the use of tree free paper stock such as sugar cane waste, straw, seaweed, algae and hemp**
  Alternative renewable paper sources can reduce need for wood pulp from old growth forests
- **Consider the use of Recycled paper stock with a high Post Consumer Waste (PCW) recycled content**
  Clean mill waste has always been recycled so it is better to keep consumer paper out of landfill

- **Consider the use of recycled paper stock that has not been de-inked**
  De-inking is a energy expensive process which still results in toxic waste ink
- **Consider the use of unbleached or non chlorine bleached paper stock**
  Bleached paper requires the use of toxins which are harmful to marine and water based life
- **Consider the use of vegetable based printing inks such as soy inks**
  Vegetable based inks are renewable and emit less toxic Volatile Organic Compounds (VOCs)
- **Avoid the use of ink colours which contain high levels of heavy metals such as copper, chrome, etc.**
  Many bright colours contain heavy metals which leach into ground water when landfilled

- **Avoid overuse of gloss paper stock, because more exists than can be de-inked and recycled**
  In some areas there is a glut of gloss paper because satin or matt paper is used less
- **Avoid overuse of plastic films, foil stampings, metallic colours and synthetic adhesives**
  Some synthetics have a life of 200-500 years after they have been disposed of in landfills
- **Avoid over use of perfect bound or spiral bound spines as they are difficult to recycle**
  The glues and metals in such binding impede cost effective recycling
- **Avoid 'bleeds' that are then trimmed and must be de-inked before recycling**
  Ink extended beyond trim marks requires more intensive recycling than ink within trim marks

- **Consider the smallest paper size suitable for each job, ie A5 instead of A4**
  Less paper used means less energy expended and should also be cheaper for client

- **Use paper sizes and number of pages that best fit standard sheet stocks without wasteful trimming**
  Printers can advise on best use of sheet stock for less paper wastage and more price savings

- **Use the least amount of ink colours for the job, ie 2 colour output instead of 4 colour**
  The greater the number of inks the more cleaning fluids required for the presses = greater cost

- **Aim to make long lasting clothing**
  - The more durable a garment the greater the timespan before replacement is needed, less resources are used

- **Strive to design clothing with classic lines**
  - Fashion styles are transient fads which require constant redundancy, classic styling equals a long life

- **Consider the use of recycled materials with a high Post Consumer Waste (PCW) recycled content**
  - PET drink bottles recycled into polyester yarns, charity shop discards shredded to make new

yarn, rubber tyres into shoe soles

- **Consider the use of natural renewable materials**
  - Fibres like Cotton, Wool and Silk are renewable unlike virgin synthetics which are a by-product of non renewable fossil fuel extraction

- **Consider the use of unbleached materials**
  - Bleaching requires the use of toxins which are harmful to marine and water based life

- **Consider the use of chemical free natural materials**
  - Cotton, for example, is often processed using toxic formaldehyde to reduce shrinkage and wrinkling

- **Consider the use of undyed materials**
  - Many dyes leach heavy metals into groundwater and waterways during production, home washing and landfill disposal

- **Consider the use of naturally coloured materials**
  - Green and Brown cotton can grown without dyeing, Wool can be naturally black, grey, brown, fawn and ecru.

- **Consider wherever possible using organic materials**
  - Organic fibres are grown without the heavy use of potentially toxic synthetic insecticides, herbicides and fertiliser

- **Consider the use of natural renewable components**
  - Buttons and Jewellery can be made from Tagua nuts from the Amazon rainforest. Plantation wood buttons as well.

- **Consider the use of recycled and/or recyclable components**
  - Recycled PET cords, labels, webbings and 100% polyester recyclable zippers. Also recycled glass as buttons & toggles

- **Investigate alternative fibre sources**
  - Hemp can be grown organically and has the strength of polyester, Tencel is plantation pulp extruded through a recycled solvent process

- **Maximise fabric yields and minimise fabric wastage by carefully checking layplans & garment Design**
  - Extravagant pattern shapes can lead to a high amount of unwanted material which is then thrown away

- **Consider laying up with cardboard patterns instead of using computer generated layplan paper Computer Aid**
  - Manufacture needs new throwaway paper plans every time a new cut is done, cardboard can be used over & over

- **Design functional garments**
  - Pockets that can actually be used and are not for affect, ornamental components avoided , sized for comfort not vanity, etc.

- **Use synthetic dyes which are colourfast or completely biodegradable if natural based dyes**
  - Coloured dyes can leach out during fabric/garment dyeing and washing contaminating waterways

- **If using synthetic materials consider using homogeneous (all the same) materials**
  - For example some garments are 100% polyester, including labels, trims and thread so they can be recycled without contaminants

- **If using natural materials consider using all naturals**
  - It should be possible to compost 100% natural garments, especially unbleached, organic materials, after their long useful life

- **Ask their material suppliers to provide a comprehensive background on the fabrics and trim**
  - Exhibiting interest in the technical and environmental history of a suppliers materials keeps them aware of their products shortcomings

- **Provide concise information on material content and care / laundering on permanent garment labelling**
  - Educated customers will value their garments and treat them with respect which will lead to longer useful garment life.

- **Avoid use of materials or construction detailing that requires special laundering**
  - Dry-cleaning, for example, is an expensive process which uses toxic solvents, such as hydrocarbons which are linked to ozone depletion

- **Educate both retail and end use customers on the environmental benefits of their designs**
  - Customers once educated will demand, or at least expect, the same high environmental standards from other garment designers

- **Investigate methods of reducing materials waste in the production process**
  - Short roll ends can be sold to staff, clean cutting scraps given to Reverse Garbage for school projects, natural fabric scraps composted

- **Keep informed of the latest environmental developments in materials, components and manufacture**
  - New technologies and rediscoveries of old techniques for green design are occurring constantly

- **Avoid using too much ink in their designs**
  More ink means more difficult de-inking or greater toxic residue leaching into groundwater

- **Consider using filmless and plateless digital printing technology for small run jobs**
  Modern printing technology can reduce amount of plastics, metals and inks used for printing

- **Use computer equipment which has energy saver features**
  Energy saver equipment shuts down when not is use saving burden on non-renewable fossil fuels

- **Use the back side of other sheets to proof their work from inkjet printers**
  Increases by double the life span of office paper. Be careful with lasers as toner can adhere to the drum.

- **Avoid overpackaging, ie postcard for mailing instead of envelope and letter**
  Follows credo of REDUCE, avoids unnecessary paper waste and expense

- **Use the recycled logo or other devices to promote the recycled nature of their production**
  Customers and Users need to have the opportunity to know they are purchasing recycled goods

- **Promote design responsibility by printing PCW content, ink and bleaching type on their work**
  Customers & Users educated by one product will look for the same credentials in other other products

- **Specify that the windows on business envelopes be of recyclable cellulosic content**
  Cellulose based windows can be recycled as paper or easily composted, plastic cannot

- **Keep informed of the latest environmental developments in inks, papers and printing processes**
  New technologies and rediscoveries of old techniques for green design are occurring constantly
- **Use all materials sparingly, particularly non-renewable resources**
  Old growth timbers, metals and precious stone are finite resources, for which better alternatives exist.

- **Select materials from renewable resources or recycled sources**
  Recycled materials are now more available, as are renewable materials like straw based particle boards.

- **Consider the offgassing properties of some materials**
  Formaldehydes in boards/textiles, benzene and toluene in paints can increase indoor air pollution.

- **Use products and furnishings which have considered their life cycle impact**
  Look at Picto and Aeon office chairs can be disassembled for recycling, keeping them out of landfill.

- **Strive for a 'look' which isn't only a fashion statement**
  Appropriate design will ensure that materials and products will have long years of use.

- **Use energy efficient appliances and fittings to save burning those fossil fuels**
  Compact fluoros and halogen lights use minimal energy while curtains and draft stoppers retain heat

- **Use materials which will aid in passive solar design**
  Floor tiles and concrete slabs, for example, in sunny winter rooms absorb and reradiate heat at night.

- **Use natural ventilation**
  Spaces can be cooled down in summer and rooms ventilated against indoor air pollution

- **Make sure the specification addresses all the eco qualities you are wanting in your design**
  For example specifying timbers certified by the Forest Stewardship Council clearly shows your intent

- **Design an eco deconstruction spec. when renovating or relocating so that materials are not wasted**
  Often no-one knows what to do with site materials, such a spec means they taken offsite responsibly

- **Start a library of eco-products and materials in your office library for others to use as well**
  Clients are often inspired after handling samples of eco-products. Help educate peers by example

- **Keep themselves up to date on eco-design issues**
  Use the accompanying resource list plus the SRD Talk and newsletters to keep up with latest issues

- **Select products and materials which create a healthy indoor environment**
  Avoid wall to wall carpets by using hard surfaces with floor rugs which can be easily cleaned and aired
- **Select water efficient products to save this precious commodity**
  Specify low flow or automatic cut-off taps and fittings, insulated tanks and pipes, quick boil urns, etc.
- **Promote the benefits of energy and water conservation to clients**
  While upfront costs may be higher, longer term use actually saves clients big money
- **Consider increasing the amount of natural light into spaces to reduce need for artificial lighting**
  Correct placement of windows, internal partitions and colours of walls/surfaces improve lighting

- **Specify timbers which they have ensured come from a long term renewable source**
  Timbers recognised by the Forestry Stewardship Council (FSC) are certified as sustainably harvested
- **Select 'pure blend' textiles, which are most suitable for the job they have to perform**
  100% blends make for ease of recycling, better still select a material which has already been recycled
- **Select fabrics which have come from a more sustainable source**
  For example, DesignTex have a line made from organic ramie/wool dyed with non toxic dyes
- **Avoid the use of chemically treated fabrics**
  Moth and stain proofing treatments can impact on both environmental and personal health

- **Consider installation of energy saving devices**
  Such as movement and light sensors for artificial lighting in offices and home to reduce energy use
- **Specify low Volatile Organic Compound emission paints**
  Plant or mineral based products emit less VOCs, which can contribute to Sick Building Syndrome
- **Use materials for presentation boards which can either be used again or recycled**
  Avoid styrene boards which can be difficult to recycle and conserve samples for further reuse
- **Prepare working drawings on A4 & A3 paper or digital CAD files on disks for easy copying**
  Not every consultant or contractor needs all the details on an large wasteful A1 sheet

http://www.conservation.org/ **- Conservation Initiative**

Enterprise promoting the commercial use of Amazonian rainforest products to keep indigenous tribes actively employed without destroying their forests. Promotes the use of ivory like Tagua nuts for jewellery and buttons and Treetap Vegetal, a natural latex rubber replacement from vinyl or leather.

http://www.maudnlil.com.au - Maud n Lil

Sydney based designers of clothing and toys from organic cotton. Easy to follow web site with organic facts and links to other organic cotton sites.

http://www.hemptech.com/ - Hemptech

A worldwide communication network on industrial hemp. Publishes books and reports, as well as providing consulting and other information services to the growing hemp industry. The Industrial Hemp Information Network

http://www.iatp.org - Institute for Agriculture and Trade Policy

Home page for the Institute for Agriculture and Trade Policy. It promotes resilient family farms, rural communities and ecosystems around the world through research and education, science and technology, and advocacy. A search feature provides many articles on cotton, etc.

ncbe@ncbe.co.uk -Textile Environment Network.

An international group of designers working in fibres, fabrics, finishes and products who are concerned about the environmental impact of the traditional textile industry

hemp.net@f701.n280.z2.fidonet.org - International Hemp Association

A nonprofit organisation established to promote the beneficial uses of hemp products worldwide. The IHA has sponsored programmes in Russia, China, Hungary and the Netherlands. The programmes centre around the themes of germplasm collection and conservation, hemp fibre identification, hemp product quality control

http://www.iida.com/ - International Interior Designers Association

An obvious website for interior designers for all interests which also has information related to the environment and health issues. Check out the Fall issues 1997 of their Perspective newsletter titled - Technology/ ecology. This issue has articles from renowned eco designers such as Kirsten Childs from Croxton Collaborative Architects including lots of worthwhile reading. Well worth a look.

http://solstice.crest.org/sustainable/index.shtml – Solstice Sustainable Living

An excellent general website which has useful information for the interior designer including subjects such as indoor air quality and the environmental impact of buildings.

http://www.buildinggreen.com/ – Environmental Building News

A terrific regular newsletter also available by subscription for hard copies with full details of all articles. Includes some useful information for interior designers. Some articles from back copies available on website. A new searchable CD-ROM of all back issues also available.

http://www.envirolink.org/aboutsite/ - Envirolink

A general environmental website with useful information on nearly anything you'd want to know about conserving the environment. See the Sustainable Business Network link for useful information and articles about products and materials.

http://data.oikos.com/products/ – Resources for Environmental Design Index (REDI).

A searchable database of over 1,400 products and resources for green buildings. Run by IRIS Communication. Ph: 0011 1 (541) 484 9353 Fax: 0011 1 (541) 484 1645 E-mail: iris@oikos.com

http://www.numenet.com/intconc - Interior Concerns Guide and Newsletter

Interior Concerns Environmental Resources, PO Box 2386, Mill Valley, 94942, USA pH: 0011 1 (415) 389 8049 Fax: 0011 1 (415) 388 8322 E-mail: intcon@nbn.com Interior Concerns Resource Guide, over 230 pages of tools, information, products, materials, case studies and listings for sustainable and healthy building and design. Interior Concerns Newsletter, bimonthly information on the same. (USD$35 plus postage.)

(34)Consider that The Minerals council of Australia might take stewardship responsibility for the mining of coal and they should accept and other footprint indicator from a university giving it an environmental critique
http://www.minerals.org.au/__data/assets/pdf_file/10048/CharteredAccountants-210905.pdf

Is committed to materials stewardship, taking a shared responsibility for the life cycle of its products, even beyond the life of mine

(35) You might ask the Waste Management Board of Western Australia what are their EPR productsAnd look at all state EPR Programs in terms of innovationsThe W.A State Government has a policy statement on EPR and the Waste Management Branch and the Waste Management Board are currently developing a priority list of materials for which some type of EPR scheme might be appropriate. so has the state of NSW **PDF]** MWAC Submission on Draft Litter Prevention Strategy for Western **...**
File Format: PDF/Adobe Acrobat - View as HTML
Packaging Covenant on litter from packaging through **2006** – 2008(mid); and Include as **... products** for **Extended Producer Responsibility** schemes. **...**
www.wastenet.net.au/policy/ reports/sub_litterstrat/file/at_download - Similar pages

PDF] WASTE MANAGEMENT TECHNICAL OFFICER GROUP
File Format: PDF/Adobe Acrobat - View as HTML
residual wastes left after enhanced. **Resource** Recovery is implemented. **...**
WASTE **UTILIZATION** In Central Queensland Coal FIELDS **...**
www.cqlga.com.au/agendas_minutes/ wmtog/agenda26_05_04.pdf - Supplemental Result - Similar pages

(36) In this paper on page 12
http://www.muprivate.edu.au/fileadmin/SOE/pib/PIBulletin_Issue5_2005.pdf
It says "a major goal of strategic asset management should be to address sustainability on an ongoing basis issues that fall under the scope of facility management should include
• Recycling programs and facilities
- recycling consumable items such as paper,plastic, etc.

Also on page 13 it says **"Organisations often fail to acknowledge and properly measure the cost of Waste and this is seen as a major limitation of most accounting systems. Organisations are generally found to ignore the acquisition costs associated with wasted resources, and instead restrict their recognition to waste disposal costs. Again, many opportunities for improving financial and environmental performance are**

being missed because of a lack of information most accounting systems allocate costs related to energy consumption and usage in a manner that does not accurately reflect the actual consumption of those resources." My request here is to educate those organisations and to periodically check on the improvement of that reporting ' this comes from a report from Professor Craig Deegan of RMIT university of Melbourne The Impact of Environmental management Accounting organisations. If the accounting procedures have not improved that is and their should be ongoing funding for the RMIT to report on this.

(37) To be able to use waste streams s a resource and to encourage ongoing commercial activity while Reducing impacts on the environment you may have to del with people like Collex who end up acquiring the waste

http://www.iba.gov.au/ibainvestments.htm#top

Port Botany Transfer Station
Port Botany Transfer Station operates a waste transfer facility in Matraville, Sydney. The facility commenced operations in September 1997 and is licensed to handle non-putrescible waste, primarily servicing the CBD and the eastern and southern suburbs of Sydney.
In this business, IBA is partnering with leading waste services organisation, Collex Pty Limited. Both have a 50% stake in the venture, which employs seven staff with two Indigenous employees. In 2003-04, the operation processed 118,000 tonnes of waste.
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