SUMMARY OF PUBLIC SUBMISSIONS TO THE STATE SUSTAINABILITY STRATEGY

September 2002

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(Please note: quotes from submissions are indicated by italics)

SETTLEMENTS

Managing Urban and Regional Growth

Clint Garrett 200205462	• WA is not adequately addressing issues such as urban sprawl, energy management and water supply. • Rapid growth in urban areas along the west coast is most concerning and in the not too distant future it is possible that Western Australia will have a continuous coastal city extending from Lancelin to Dunsborough. • Urban sprawl is removing vegetation associations and forcing rural activity further from Perth. • The cost of providing services over such as widely dispersed urban area must be huge. • The sprawl encourages a high level of car use which will be difficult to sustain in the future. • Developments on blocks that front the beach limit public access to beaches and this restriction remains for people in the future. • The right of the public to have easy access to beaches is a higher priority than private profit.	• There is an urgent need to set aside significant green belts of native vegetation and rural land which cannot be subdivided for residential purposes. • The immediate coastal zone needs a higher level of protection to prevent privatisation of the coast. • Legislate for Green Belts to limit development to particular localities rather than having continuing sprawl. • Continue to develop and promote the public transport system. The Mitchell Freeway line is a good example of what can be done to make rail a viable transport alternative.

R&S Cleverley 200206725	• The Coastal & Lakelands Planning Strategy WAPC, 1999, for classifying areas of "high scenic quality" in Quindalup and Spearwood Dune landscapes between Mandurah and Bunbury, provides for protecting aesthetic values of highly scenic areas. • This should apply to all areas and needs no compensation to land-holders • It could potentially protect "sanctuaries from the city" for WA holiday makers and eco-tourists eg Moore River	• Similar objectives should be prepared for geomorphic regions of the state • These provisions should be given statutory force
Mary Gray 200206686		Dependence of domestic economy on building and urban sprawl a priority sustainability issue for WA: • *Perth domestic economy is driven by new land development and continuing urban sprawl of the worst kind (for social, energy, environmental and infrastructure needs)* • *Land development industry has powerful lobby to government to direct land releases and meet own vested interests of massive financial gains from rezoning* • *Lack of planning and legal requirement for resource use efficiency* • *Urban development styles grossly unsustainable and consume vast energy, water, materials and destroy bushland and biota* • *Natural bushland still being cleared for outer urban sprawl*

Quinns Rocks Environment Group 200206967	• *The local experience says much about sustainability, or unsustainability.* • *Large swathes of bushland habitat have been cleared for housing estates and more is earmarked for future low density residential development. Many people have moved here because land is relatively cheap but job opportunities and services are limited, and the car is the primary means of transport and car dependence is built into urban design.* • *The local community has protested against landfill waste disposal at Mindarie, urban sprawl affecting bushland and encroachments on Neerabup National Park, but decision-makers have taken little notice.* • *Much of what we have raised concerns over was planned long ago without public involvement or much thought to environmental or social implications.*	• *Modify the Liveable Neighbourhoods community design code to take account of biodiversity and landscape issues and apply it to proposed urban development in the North West Corridor. This should mean local bushland areas are identified and retained. The code should also ensure that street design and location of land uses reduces car dependence and provides a range of job opportunities, shops and community services.* • *Rethink broadscale urban development up the North West Corridor. The 1987 review of regional planning in Perth recommended the corridor be truncated in the vicinity of Alkimos.* • *Concern over Perth's expanding urban footprint should lead to a more compact urban form; continuing wall to wall suburbs, and all the infrastructure that goes with it, to Two Rocks is hardly sustainable* • *Develop an employment strategy for the Quinns Rocks area, with the City of Wanneroo and local community. The strategy should seek much greater local employment and promote greener, smarter enterprise that reinforces rather than erodes environmental quality and social equity. Waste recycling, wastewater reuse, organic agriculture, nature based tourism, education services and knowledge based businesses should be considered along with teleworking or telecottages.*

Cornelia Major 200204125	• Stop urban sprawl to reduce negative impacts on the environment, travelling times, fuel consumption, limited public transport use and social problems	• Strictly limit new land releases, encourage smaller blocks and reduce road reserves in neighbourhood areas • Local governments should be strongly encouraged to increase density

Revitalising Declining Centres and Suburbs

Eco Town Inc 200206627	*Background:* *Towns in rural WA are under threat from declining income, seasonal conditions and degrading natural resources. The EcoTown Association formed in an attempt to turn around current trends and facilitate a brighter future for rural WA. EcoTown has developed out of findings from Rural Towns Program work and has five member shires – Pingelly, Mt Marshall, Perenjori, Merredin and Tammin. The focus of EcoTown is to identify and capitalize on under utilized natural and other resources within rural communities to create a more sustainable future.* *Objectives:* Ø *Maximise profitable long term Enterprises* Ø *Increase Employment* Ø *Protect and enhance the Environment*	*Role of Government, Business and Community:* • *We strongly suggest that Government needs to be proactive in recognising, supporting and working with communities, such as EcoTowns, who are prepared to adopt practices that comply with the principles listed above. When Government supports groups like EcoTown it is saying, "we appreciate your self help approach." EcoTown aspires to lead by practical example.* • *Municipalities such as the shires forming EcoTown need to be encouraged and supported. It is necessary to assist them to thoroughly investigate opportunities within their communities' and assist them to take the risks involved.* • *Government may consider low cost loans rather than grants. Successful enterprises could then repay back into a fund that can then be accessed by others. For example Government could provide financial support for water harvesting in rural towns. Water produced could then be sold to recreation clubs and private enterprise.*

	Principles: Ø *Manage the town and its surrounding catchment as an integrated system* Ø *Fully understand and capitalize on the town's competitive advantage* Ø *Use water where it falls for profit, recreation, or the natural and built environments* Ø *Promote diversity of enterprises, employment and natural environments* Ø *Treat everyone as a potential investor in the town* Ø *Learn from natural ecosystems* Ø *Apply monitoring to assess continual improvement* Ø *Recognise local environmental attributes as opportunities* Ø *Involve the community in achieving EcoTown objectives* *Benefits can be summarised as follows:* Ø *Improved employment opportunities* Ø *Improved marketing opportunities for local products* Ø *Investment dollars for enterprises from funding bodies and corporations* Ø *Financial support for conservation of biodiversity* Ø *Amenity improvements* Ø *The towns will be more desirable places to live and in turn will attract others* Ø *An improved outlook for the community, particularly for the young;* Ø *Reduced reliance on resources sourced from further a field (eg scheme water, power),* Ø *Reversed land degradation* Ø *Increased learning opportunities for community members.* *EcoTown provides excellent opportunities for rural towns to develop efficient systems that are better adapted for West Australian conditions.*	• *Government also needs to be adopting these principles in its own planning department as well as directly or indirectly funded research. The Department of Planning should be planning for recycling of water, low energy housing and sensitive natural resource use. For example could low energy design requirements be adopted for all new commercial or residential subdivision and building permits? This would educate many who are ignorant of the benefits and force others to comply.* • *Business should be encouraged and rewarded for incorporating sustainability principles into their businesses. Taxation benefits when purchasing specialist machinery required for sustainable production, as well as R&D assistance to develop new machinery, plants, chemicals or processes should be considered. Building low energy design homes could attract a $500 rebate from the Government in a similar manner to converting cars to gas.* • *Partnerships have been initiated by EcoTown with corporations such as Elders, Solar Energy Systems, Western Power and the Water Corporation. These partnerships are vital to understanding and achieving sustainable production and should be encouraged by Government.* *Best Practice Examples: Merredin townsite, Pingelly recycling of treated sewerage for town ovals.*

Integrating Land Use and Balancing Transport (including Urban Design and Sustainable Communities)

Dr Gary Luck 200202587		• Provide financial and other incentives to get people to use non-car transport • Improve public transport and increase the network of bike paths • Implement 'car free days' in the CBD or ban cars from the CBD entirely
Cornelia Major 200204125		• Increase fuel prices to discourage private car use and increase public transport use • Reduce Main Road's budget in favour of non-car transport such as public transport, provision of better cycling facilities and better footpaths. • Increase road safety especially around schools. Limit speed around schools to 30kmh and enforce speed limits on local streets. Provide safe pedestrian crossings • Make it mandatory that footpaths are built on all new roads and cycle paths are built on all main roads • Provide better bus priority systems
Brian Bucktin 200204123	• The benefits of constructing more major transport infrastructure should be investigated due to the dwindling known fossil fuel reserves, increasing demand and the present lack of sustainable alternatives, including Hydrogen Cell technology • Major highways often attract further development along their path. This exposes even more areas of remnant vegetation and pristine ecosystems to urban development resulting in reductions of biological diversity (e.g. development of the Peel Deviation Freeway instead of upgrading the existing South West Highway)	
M.J. Norman 200204690	• Single occupant cars use fossil fuels at a high rate, polluting air and contributing to the Greenhouse effect	• Offer significantly reduced parking for cars with two or more people, together with a Website (where people can find others who want to car pool) to increase the amount of car pooling

Men of Trees 200204767	• Consumers might consider not ordering a new car until hydrogen cell or solar energised cars were on the market	• Tax heavy fuel use vehicles e.g. 4wd used for family shopping • Encourage use of smaller cars and public transport • Subsidise the purchase cost and road tax for vehicles under one litre capacity
Keith Jones 200205377	• As global oil production nears its peak and the threat of global climatic change mean that there is a need to swing away from the current emphasis on road transport. This shift in paradigm for the community at large will result in a reduction of fossil fuel consumption and reduced greenhouse gas emissions • Buses have a role to play in the public transport system, though no matter how clean and green the engines are, there is always the waste spin-off from these vehicles to be considered (e.g. coolants, engine oils, filters, batteries and worn tyres). This does not make buses a particularly attractive as a form of sustainable transport in the future	• Investment and expansion of current rail networks must occur to counter the impact of rising cost and scarcity of oil supplies. To achieve this end, a larger portion of the transport budget should be dedicated to rail rather than road transport systems, rather than increase taxation • Initiation of a programme to establish and preserve future rail transport (both light and heavy) corridors and routes through existing metropolitan areas and beyond • Each government should be obliged to lay at least 10km of new passenger or freight rail within the greater metropolitan area each year. In regional areas there should be an ongoing commitment to reinstate and upgrade country freight lines and sidings to encourage freight and passengers back onto rail
Royal Automobile Club of Western Australia 200205446	• *Transport's current dependence on cheap oil supplies is not a sustainable activity. Estimates of the life of cheap oil supplies range from 3 to 50 years however the sooner we start the transition to a sustainable system the easier it will be* • Moves towards a more balanced public transport system as supported by the RAC (e.g. Travelsmart scheme) • RAC also encourages members to use alternatives to the car where possible and raises awareness of technological developments and their impacts	

Ruth Balding 200205374	• *How could we begin to be sustainable in our travel habits with the provision of such poor public transport infrastructure?* • Perth is developed around a car culture and this is encouraged • At many workplaces, cyclists are not offered secure places to store their bikes, the bike racks installed don't meet Australian standards (which leads to bike damage and theft), and showers and change areas are not provided • *The practice of providing a car as part of an employment package with free petrol, free maintenance, free parking spaces at work actively enforces greater car usage*	• Design train carriages to better accommodate bikes • Install proper bicycle paths for linking all parts of Perth. Cyclists riding to work require direct routes to their workplaces not scenic routes which are often designed for Sunday bike rides • Government departments need to be more bike friendly to encourage employees to cycle to work
Clint Garrett 200205462	• Paving over of large areas must have implications for WA's sub-surface water supplies. • Developments on blocks that front the beach limit public access to beaches and this restriction remains for people in the future. • The right of the public to have easy access to beaches is a higher priority than private profit..	• There is an urgent need to set aside significant green belts of native vegetation and rural land which cannot be subdivided for residential purposes. • The immediate coastal zone needs a higher level of protection to prevent privatisation of the coast. • Legislate for Green Belts to limit development to particular localities rather than having continuing sprawl. • Continue to develop and promote the public transport system. The Mitchell Freeway line is a good example of what can be done to make rail a viable transport alternative.

BP 200206484		• Move towards sustainable cities: use of integrated PV systems in buildings and use of cleaner fuels (these fuels have societal benefits in the form of cleaner air, and benefits for the driver such as efficiency, reduced maintenance)
Housing Industry Association Ltd 200206504		Recommendations from (*Better Living Environments*): • Contain planning creep through by delivering clear distinction between matters that should be the province of the Building Code and those that should remain the province of planning systems (eg avalanche of levies, charges and fees for new residential development which in reality goes to "external" infrastructure ie fire protection, schools) • Greater transparency and accountability for levying, fees and charges (external infrastructure should be funded out of the community's taxation base) • Minimise differences in planning schemes by promoting development of model planning legislation based on best practices from other states • All changes to planning and environment legislation (at all levels of government) be accompanied by a housing affordability impact statement • Move from inflexible regulatory conditions to performance-based approach, greater housing choice and foster innovation

R&S Cleverley 200206725	• The Coastal & Lakelands Planning Strategy WAPC, 1999, for classifying areas of “high scenic quality” in Quindalup and Spearwood Dune landscapes between Mandurah and Bunbury, provides for protecting aesthetic values of highly scenic areas. • This should apply to all areas and needs no compensation to land-holders • It could potentially protect “sanctuaries from the city” for WA holiday makers and eco-tourists eg Moore River	• Similar objectives should be prepared for geomorphic regions of the state • These provisions should be given statutory force

Bicycle Federation of Australia (BFA) 200206722	• BFA is the peak council of state bicycle advocacy groups in Australia • BFA advocates for improved facilities to support increased cycling and the development of ecologically sustainable transport networks • See submission for best practice examples including Dutch Government • See submission for 13 measures needed to supplement National Greenhouse Strategy, National Bicycle strategy and deliver sustainable transport outcomes, including taxing less efficient fuels and car parking to create incentives and produce funding for better public transport, and planning for employment intensive developments only in areas served well by public transport	• Recognise overseas experience (eg Netherlands) shows that greatly improved road safety, health and the environment is a practical proposition for all Australian cities • Encourage commonwealth commitment to a coordinated National Environment Plan, including a greening of the tax system so that synergetic outcomes in the areas of safety, health and the environment are possible • Encourage the WA government to take action and give priority to funding cycling, walking and public transport. Give priority to and implement existing initiatives such as: travel Smart Program incorporating Cycle Instead, Bicycle strategy for Perth and the provincial city bike plans, walking and Public transport strategies including provision of 2000 free bicycle lockers on the rail system over the next 5 years • Liveable Neighbourhoods design for all new housing developments • Constrain urban development to within Perth's existing urban areas. Limit urban sprawl and contain growth within Perth's existing urban area. • Establish and promote low speed cultures by reducing speed limits, particularly in residential areas • Strengthen laws relating to vulnerability of cyclists and pedestrians and removing the legal leeway given to motorists in enforcing speed limits

Institution of Engineers, Australia 200206827	• The Metropolitan transport Plan recognises the need for transport alternatives such as buses, trains, bike riding and walking but fails to outline spending priorities for public transport • Many benefits from better public transport: reduction of greenhouse gases, better air quality, equitable access to transport and facilities (public transport in outlying suburbs has not kept pace with urban development) • See report attached to submission, 'Sustainable Transport Responding to the Challenges', for recommendations for sustainable transport	• funding for transport needs of metro area • road user charges and increased funding for rail, bus and ferry transport • better urban planning to include public transport links together with greater incentives for passengers such as more efficient transport links and fare discounts (patronage of public transport system has been steadily declining) • integration of public transport infrastructure and clear incentives for users through efficient intermodal links and better feeder systems

Bicycle Industries Australia Ltd 200202192		• Recommend low emission small engine production in WA. WA might have an industrial/commercial capacity to use the Orbital Engine Company's clean emission 2 stroke engine technology (e.g. in 25 to 30 c.cm capacity format) as a power unit for use on bicycles. There would need to be a complimentary power management system included (rated power output, speed control etc) but it could open a commercial opportunity for the State. • Advocates Netherlands' institutional ability to pull together a variety of sectors and levels of government in a common effort to develop innovative, integrated policy strategies. It was done through open discussion amongst stakeholders, efforts for good communication and transparency. • Netherlands National Peer Review findings: 1. Strike the right balance in decentralisation. 2. Transport policy-making needs greater clarity and transparency with regard to relative roles of regions. 3. Encourage involvement of market forces in public transport. Consider accelerated time frame for competitive tendering. Need more targeted incentive mechanisms. 4. Further efforts of reducing negative environmental impacts of transport and traffic in cities should focus on noise and CO_2 abatement. • See submission attachment A for further details of case study of sustainable urban transport in the Netherlands. • Advocate power assisted bicycles (an integrated system requiring pedal action to trigger assisted power input) for those who would be riders if they had some help. This technology will encourage more people to use bicycles, people who would otherwise not be able to ride. It is a growing niche in the bicycle industry. See attachment B in submission about 'Future Options' for power assisted bicycles. • Recommend the Dutch 'Public Transport Hire Bikes' system as door-to-door public transport: bikes can be hired at train stations from automatic machines and can save rail passengers time if used to cycle from the station to the final destination. Also is an efficient use of space at stations. *The weakest link in public transport has always been the journey from station to final destination.* See submission attachment C for details.

Bicycle Transportation Alliance 200206524	• *Increased cycling can have major benefits for the Western Australian population in the following areas:* • *Air pollution – motor vehicle emissions are a major source of air pollutants in Perth – bicycles made NO contribution towards air pollution.* • *Global warming – about 13% of the State's greenhouse gas emissions come from car use. Replacing most small car journeys by bicycle can easily result in greenhouse gas savings of around 1,500 kg of CO2 equivalents per year.* • *Oil dependence – land use planning has taken NO account of oil dependence and the current structure of society is vulnerable to oil prices and oil supply.* • *Physical activity - reduced physical activity (including lower rates of non motorised travel) is contributing to ill health and growing health care expenses. A Danish study shows that people who cycle to work have a 40% lower mortality, based on an average of 300 minutes cycling per week (all other factors taken into account).* • *Neighbourhood environment – traffic volume, speed and noise reduce the liveability of our suburbs and increase stress. Cycling increases the presence of people on local streets and is known to make streets safer in terms of community crime.* • *Social disadvantage – access to work, shops, community facilities and social support can be severely restricted for those without a car; and* • *Financial costs – Perth spends 17% of its gross regional product on transport, mostly on running cars and providing roads for them.*	*1 Child Mobility:* *1.1 Every school address targets for cycling and walking to school to actively encourage the use of bicycles for school journeys.* *1.2 Increase funding to the TravelSmart program, instead of cutting the budget, as has happened.* *1.3 Develop and implement a Statement of Planning Policy through the Western Australian Planning Commission (WAPC) to recognise the importance of cycling in local transport plans so that every local Government will incorporate cycling into their local plans.* *2 Footpaths and Shared Paths* *2.1 Immediately mandate for local Governments to implement safe footpaths. (Australian guidelines suggest widths exceeding 2 m where both pedestrians and bicycles use the path), with the removal of obstructions such as poles, signage, benches and overhanging vegetation. Changes in the consideration and approach to design and maintenance of footpaths is also needed.* *2.2 Modify WA Traffic Code 2000 to allow adults and children to ride on all footpaths, unless otherwise prohibited by signage, as is the case in Queensland and the ACT. There are many instances where travelling on a footpath is required to safely complete a cycle journey.* *2.3 Re-introduce the requirement for pedestrians to keep left on all paths to make the shared use of paths, by all users, more predictable and safe.* *3 Suburban Road Speed Limits* **3.1** *The BTA strongly supports the introduction of 50 kph zones but is very concerned with the absence of effective speed management or enforcement on these roads. An enforcement strategy should be developed and implemented as soon as possible for local streets with 50 KPH zones.* **3.2** *Introduce 30 kph "home zones" for "green transport" areas. These areas would be small, typically less than 600 metres by 600 metres blocks, would have a total transit time of less than one minute at 30 kph, do not contain any*

Victorian Bicycle Coalition 200204203	• *Urban bikeway networks are not only of value to cyclists but to pedestrians, the elderly and the disabled.* • *Bike/rail travel can make rail networks more accessible and competitive with car travel. OECD studies (FCMT 2001) show that the high level of bicycle use in the Netherlands (28% of all trips) for 'door to door' trips and accessing railway stations has helped stabilise car fleet greenhouse emissions and constrained road congestion costs. Meanwhile Australian urban emissions and congestion costs escalate.* • See submission for attachments: 'Green products to help move the world beyond oil: power assisted bicycles' and 'Report on the encouragement of bike/rail commuting on the Brisbane rail network'.	• *There is the potential for West Australian companies to manufacture power assisted bicycles (PABs) powered by clean electronic ignition two stroke engines that run on relatively clean fuels that are available in WA. Indeed, the Orbital Engine Corporation (OEC) in WA, which is one of the leading independent automotive research establishments in the world, has expertise in the design of small clean two stroke engines (Leighton et all 1993). OEC technology is also used in marine outboard motors, jet skies, Piaggio-engined scooters, and NSR motor cycles. There is a market for PABs in Australia and huge market in Asia and the developing world. The Chinese authorities have now adopted OEC designed clean, two stroke, engines for all new motor scooters made in China (Johnstone, B 1998).* • *Recommendation: The WA government should assist the OEC to develop a clean engine using a cheap clean fuel that is readily available in WA and assist the OEC to research overseas markets to determine the export potential of bio fuelled PAB's in the developing world.* • *The need for secure bicycle parking at railway stations, modal interchanges and express bus stops.* • *Within the 20 year time frame of the State Sustainability Strategy we estimate that there is a need to provide 10,000 secure bicycle parking places on the public transport system. A 500 new bicycle lockers need to be provided on average per year for the next ten years. About half of which would be put on rail stations.* • *As rail patrons mostly use lockers for commuting to work or places of education on all rail systems, Citytrain's provision of 453 lockers per 10,000 commuters should be accepted as an achievable five year target. This target when translated as additional lockers required on other rail systems is: Melbourne 3800, Sydney 8800, Adelaide 240, and Perth 480. The VEC wants these lockers funded out of vehicle parking budgets and given priority over car parking.* • *This submission supports the view that if 1000 lockers per 10,000 commuters were accepted as the long term target by Transperth and 30% of these lockers were taken up by many of the able bodied motorists (50%) who now drive less than 3 km to a station is would greatly reduce the costs of vehicle parking infrastructure and optimise car parking utilisation.*

Subiaco Bicycle User Group 200206300	• *Many citizens are especially dependant on safe footpaths, including the disabled (sometimes on motorised chairs), elderly and children (sometimes on bicycles). However, footpaths are frequently too narrow (1.2-1.5 m, while Australian guidelines suggest widths exceeding 2 m where both pedestrians and bicycles use the path), with frequent obstructions such as poles, signage, benches and overhanging vegetation. Comparatively narrow paths (even less than 1.5m wide) continue to be built around primary schools. When coupled with frequent overhanging vegetation, this is inadequate and unsafe for bi-directional flow of bikes (particularly unstable children) and pedestrians.* • *Many American and European cities already have 40 kph and even 30 kph residential street limits. In Australia, the City of Unley in South Australia has had a 40 kph limit since 1999 following surveys that showed 70% support from residents.* • *Apart from the lives that lower traffic speeds will save, much of the need for expensive and bicycle-dangerous 'traffic calming' devices on local roads could be questioned.* • *Labor Transport Policy committed the Government to:* a. *Allocating $20 M over four years to the expansion of dedicated bike paths in Perth and regional centres.* b. *Working with local government to incorporate bike paths and on-road bicycle networks.* c. *Incorporating bicycle infrastructure and recognising the importance of cycling in local and regional transport plans.* d. *Providing secure and accessible bicycle storage and parking facilities at major bus and train stations.*	*Recent surveys in Subiaco have shown that the community is very concerned about increasing car use and its impacts and is keen to see a shift in transport funding priorities toward measures to encourage and provide for active and public transport. For example:* 1. *Sixty three percent of residents are concerned with the high level of car use in Subiaco (Dept of Transport, 1998: Subiaco TravelSmart Study);* 2. *There is very high concern over: i) the safety of children, particularly going to and around primary schools and at busy road crossings; ii) impacts of heavy traffic on the residential amenity; iii) access to public transport; and iv) lack of provision for bicycles (Dept of Transport, 1999: Shenton Park Integrated Transport Study);* 3. *A safer pedestrian/bicycle environment is needed (City of Subiaco, 1999: Strategic Plan Community Wellbeing Report);* 4. *The effort for pathways/cycleways should be increased (City of Subiaco: Residents' Satisfaction with the City of Subiaco); and* 5. *Traffic is the most undesirable feature of living in Subiaco and lack of cycleways is a major issue for the Subiaco community (City of Subiaco, 1998: Review of Community Needs Assessment).* • *Eighty four percent of people in the metropolitan area want transport policy and planning to favour environmentally friendly modes, and half of the population believe planners have an exaggerated impression of the community's demand for car-oriented planning (Transport, 2000: TravelSmart 2101, a 10 Year Plan).* • *Our roads need to be made safer for everyone, particularly the more vulnerable users such as cyclists, pedestrians and the disabled, and for children in particular. This needs strong state and local planning and leadership. This issue pertains to the following areas of Labor Transport Policy:* a. *Actively encouraging the use of bicycles for school journeys* b. *Fostering the TravelSmart program and Safer Routes to School programs* c. *Recognising the importance of cycling in local transport plans* • *Changes in the consideration and approach to design and maintenance of footpaths is needed.*

Cyclist's Action Group 200206711 (Enclosed as the submission is a copy of the Bicycle Federation of Australia submission to the Sustainable Energy Policy for Australia, 1996.)		• *Any serious evaluation of sustainable transport must consider the existing and potential of bicycle transport* • *Already some 5% of trips in Perth are undertaken by bicycle, and this could be raised to 20% with modest investment in infrastructure and in changes in road authority policy.* • *Undertake to complete the Perth Bicycle Network by 2005, including as a high priority the cycleways along the railway lines from Perth to Armadale, Midland and Fremantle, which will take almost a century to complete at the current snail's pace.* • *Ensure DPI and MRWA have performance indicators which adequately evaluate their provision for sustainable transport, especially for cycling and walking. Current road engineering practice frequently creates additional hazards for cyclists and pedestrians when making the roads safer and more efficient for motor vehicles. MRWA performance indicators are heavily biased towards motor vehicles, and the road safety performance indicator has been dropped.* • *Ensure that a specified fraction, initially 5%, of total urban transport funding is devoted to bicycle transport infrastructure. Road and transport authorities which perform poorly in catering for bicycle transport in new road works and in traffic management schemes should have their road funding cut until their performance becomes acceptable.* • *Rejuvenate Bikewest as a cohesive effective well-staffed bicycle transport infrastructure provider. [Bikewest was disbanded and dismembered in past DoT reorganisation and "integrated" into general transport so well that bicycle transport expertise has almost vanished]* • *Insist MRWA form a well resourced bicycle traffic engineering group to reverse the existing MRWA and local authority indifference and incompetence in the design and construction of roads and paths which cyclists will use. A sadly large number of examples can be quoted in support of this discouraging claim if there is any doubt.* • *Discontinue the practice of providing "company-cars" for all senior DPI staff, as it sets a very bad example to the community, and it also further perpetuates WA's "obsession with cars" and serious automobile dependence.*

		• *Reduce urban speed limits to 40 km/h.* • *Funding for bicycle transport should be on a similar level per trip or per km to funding for public transport. At the moment, children who travel to school by bus receive a substantial subsidy, while those who go to school by bicycle receive very little indeed in the way of expenditure on facilities like Safe Routes to School.* • *Secure bicycle parking at bus and train stations, and carriage of bicycles on buses and trains are needed to discourage longer urban trips.* • *State Fuel Franchise Levies should be raised in urban areas. Differential rates for urban areas, are recommended by the Industry Commission (Urban Transport, I, 252)* • *An Australia-wide no-fault third party road crash insurance scheme should be introduced, funded by a levy on fuel sales. There is no third-party cover for people injured on pedestrian and bicycle paths. An overhaul of third party insurance has been recommended by the Industry Commission10 to make the full costs of accidents part of the internalised costs of road users."* • *Commonwealth fuel excise should be raised incrementally until fuel prices in Australia are at least on a par with European pump prices.* • *Our transport system should be designed for non-car private travel as well as for motor vehicles. Elderly people and those with handicaps are increasingly using electric scooters and wheelchairs for short urban trips. Provision of good bicycle facilities, such as off-road paths and on-road bikelanes also assists the use of alternate low-powered vehicles. This provides valuable accessibility to those who do not have access to cars.* • *Motor vehicle design standards should be updated to provide crash protection to pedestrians and cyclists as well as vehicle occupants. . Impact absorbing frontal treatments for cars and trucks is an important way to improve the safety of sustainable transport modes.* • *Bans on the use of bull-bars in urban areas would also make a substantial improvement to the safety of sustainable transport modes. Most bull-bars are installed for cosmetic purposes, as can be seen from examination of the polished and expensive 4WDs in fashionable suburbs. The injuries to pedestrians hit by*

		these devices are very substantially worse than those inflicted by standard vehicles. • *Federal funding of bicycle transport at levels of 1 cent/litre of petrol and diesel, (or at levels of about half the funding per trip/km now devoted to urban public transport) will be enough to double and perhaps treble bicycle usage rates in Australia. This will create very substantial transport energy savings, and will substantially improve the "robustness" of our urban transport system and our ability to minimise the effects of the short and long-term oil shocks which are predicted to become a feature of early 21st Century Australian life. It will allow the oil saved to be used for crucial national purposes, such as mining, aviation and agriculture and for a strategic reserve for defence.*
J.E. Wajon 200206629	• *I support rapid transit serving the Perth-Mandurah corridor, and the concept of the route following the Kwinana Freeway where possible.* • However, a train service may not be the most sustainable option. *A bus-based system utilising a variety of different buses, including two- and three-carriage buses, is possibly more efficient, cheaper and more flexible, especially if it was very frequent. It would (continue to) allow feeder buses from Fremantle which (currently) travel along South Street and Leach Highway to use the rapid transit route. Buses could safely travel at speeds greater than 100 km/hour along the rapid transit route from Mandurah.* • *There is also the greater possibility that the rapid bus transit route could be located in existing road reserves between Rockingham and Mandurah, something which will be very difficult if not already impossible, for the train route. This would protect a considerable area of remnant native vegetation including wetlands.* • *A bus-based system is likely to be more aesthetic, with no overhead wires along the South Perth foreshore and Perth Esplanade, and would solve the debate and disagreement over the best way for the*	• *A high occupancy vehicle lane, in addition to the existing rapid transit lane, should be introduced on the Kwinana and Mitchell Freeways to encourage car-pooling. This should be at the expense of one of the existing car lanes.* • *Much more use should be made of the existing rail infrastructure. Rail has many advantages over road (less energy), and some disadvantages (less flexibility), and there are existing routes. Use of rail would be stimulated by upgrading the rail infrastructure and would be preferred if road travel were relatively unattractive or slow. Environmentally preferred transport options such as rail should receive priority over road. Rail is making a comeback as a transport mode, and innovations borne of necessity are likely to be able to integrate road and rail much more efficiently.* • *Existing rail infrastructure could possibly be used to accommodate heavy vehicular traffic directly rather than constructing extra routes through uncleared land. Exclusive heavy traffic routes could be built within rail reserves, either alongside existing rail tracks, on or within rail tracks or above it (i.e put in a tunnel)* • *Better Public Transport, the Ten-Year Plan for Transperth 1998-2007, has many good initiatives, and should be implemented.* • *Land use should be planned around public transport facilities, and public transport should be integral to all planned developments. Commercial facilities, such as newsagents, book*

	train to enter Perth. A bus-based system is also likely to be cheaper with less new infrastructure required. • *There are currently truck trailers commercially available which, in addition to the usual road wheels sets, are equipped with rail wheel sets. This allows them to move from road to rail and take advantage of rail's efficiencies. Prime movers equipped with rail wheel sets as well as road wheels sets are in development if not in use already.* • *If this technology was employed, highways could be located in railway reserves with road-rail interconnections at appropriate points. If a decision to proceed down this path was taken, trucking companies would obtain the appropriate hardware to take advantage of the lower operational costs.* • *There would be an even greater incentive to introduce this technology if interconnections were made at other locations along the metro and country rail infrastructure.* • *The use of rail infrastructure by unmodified heavy road vehicles by surfacing the line and sharing the track with trains is less tested, but may be feasible if the road tyre tracks can be displaced slightly from the rail tracks. Investigations would need to be undertaken to determine whether the road base would be compatible with the road bed, or what modifications would be required.* • *It is likely that sophisticated controls would allow road-rail movements to be scheduled and operated no less safely than a heavily used rail-only system. After all, air traffic is controlled safely even at very busy airports.*	*stores, coffee shops, pharmacies, film developing centres, small grocery stores and banks, should be encouraged (or provision made) to locate near Park n Ride centres and major transit stations.* • *Banks should be encouraged to offer interest rates on home mortgages which reflect the average commuting costs to the CBD (associated with distance from the CDB). This could encourage increased inner city dwellings and discourage urban sprawl.* • *The State Government needs to make representation to the Federal Government to allow employers to include green transport modes in salary packages in the same way as car packages, i.e. so that they are treated in the same fashion with respect to fringe benefits tax. Significant tax benefits are available to higher paid employees who are provided with a car as part of their salary package, but there is nothing similar available to employees who use public transport. This bias should be corrected.* • *Further, the State Government needs to make representation to the Federal Government to reverse the current situation with respect to the sliding scale of fringe benefits tax on company car use. Rather than the fringe benefits tax decreasing as the distance travelled increase, the fringe benefits tax should increase as the distance travelled increased. This would discourage un-necessary car usage and correct the perverse situation where some individuals currently take their car on a long trip solely to qualify for the 25,000 km threshold, below which the fringe benefits tax decreases, in order to qualify for a rebate.* • *One alternative to encourage the further use of public transport is that, where an employer reimburses employees the (substantiated) cost of their travel by public transport to and from their place of work, this benefit to employees be treated as an exempt benefit with respect to the Fringe Benefits Tax. The real cost of public transport to participants in such a scheme would thus be reduced, making public transport a more attractive alternative.* • *If the proposal was allowed, there could be a diminution in the amount of tax collected by the Government, but the gains would*

		be considerable. Apart from the environmental aspects, there are others, such as: • *increased patronage of public transport, making these services more viable;* • *reduced traffic congestion in our cities;* • *reduced consumption of petroleum products;* • *reduced maintenance and increased life of cars and roads;* • *reduction in imports;* • *reduced pressure for the provision of new infrastructure, such as roads, bridges, and city car parking facilities; and* • *a healthier population.* • *Subsidies should not be given to pay for diesel fuel. This will only encourage its continued use rather than result in alternatives, such as fuel cells, being developed. Further, a rebate could be offered on the sale of fuel-efficient cars based upon how efficient they are compared to a target efficiency or to the efficiency of the car traded in. This would encourage the production of fuel-efficient vehicles.*
Sylvia Tetlow 200206685		• *Country town rail system and tourism: Re-establishing commuter rail systems to country towns especially east of the Albany Highway is needed to make it easier for city people and overseas visitor to visit them. Tourism can then be a real option for towns east of the Albany Hwy in addition to addressing the problem of the lack of knowledge and understanding between city people and farmers.* *Perth City light rail/air pollution and native gardens/water use:* • *In order to address the problem of the growing air pollution over Perth city I believe that money needs to be invested in creating light rail links between nodes throughout the city. If this is done in a way to address the transport needs of the city population, we can begin to be less dependent on the car for transport and hence reduce air pollution.*

Cesira Leigh & Glen Ryan 200206726		• *Better bicycle network and facilities made available to commuters* • *Public education on sustainable transport* • *Tax deduction incentives for receipted public transport or corporate governing employer charge cards.*
Tad Zalewski & Associates 200206631		• *Replenish our Rural Communities.* • *We should look at our "Planning" for the State from a macro-perspective. eg consider the framework of the entire State and importantly, the NODES that link the infrastructure together. Of major importance is transport and communication.*
Chloe Weiter 200206633		• *Sustainable transport use must revolve around less use of private vehicles and greater use of public transport, cycling and walking.* • *Increase car park charges in the city centre* • *Impose a 'toll' for private cars driving into a designated city zone at the same time as increasing frequency of bus transport within the perimeters of the zone.* • *Apply some sort of environmental cost-benefit analysis when building new roads that considers investment in alternatives such as train lines, bus links and cycle ways.* • *Public health benefits will also accrue from increased exercise and reduced air pollution.*
Judy Blyth 200206516		• *We need a public transport system so attractive that it will entice travellers en masse out of their own vehicles into those trains, buses and ferries. Around Perth, there is already a good system of bicycle paths, and sometimes dual pathways to cater for cyclists and pedestrians separately.* • *Such facilities in our pleasant climate encourage better health and so more enjoyable lives for people here - and extension to further suburbs would encourage more healthy outdoor exercise while saving on fossil fuels.* • *The less private transport, the greater will be WA's contribution to reduction of Greenhouse gases.*

The Environmental Alliance 200206616		• *The development of a state transport policy must be a priority in order to make the transition to a more energy efficient, less carbon-intensive transport and production system.* • *The costs and benefits of the various alternative fuels should be assessed on a lifecycle basis and incorporated in government energy and transport policy.* • *Government must adopt a strategy to reduce our oil dependence, addressing issues such as travel demand, energy efficient travel options and better managing land use.* • *Urban and regional development should always be planned around sustainability-related considerations, such as access to public transport and maintenance of greenbelts.* • *Government should support and extend the TravelSmart program.*

URBAN DESIGN AND SUSTAINABLE COMMUNITIES		
Michael Lewi 20020679	• Adaptive re-use of existing building stocks (especially Heritage listed buildings)- refurbishment of existing stocks often cheaper than building new buildings.	• State should set trends in adaptive re-use by occupying existing buildings where possible and provide financial incentives, design and planning advice to encourage the private sector.
Dr Gary Luck 200202587	• State Government must address bridging the gap between rich and poor. The system needs to be modified from one of competitive pursuit of individual wealth to a greater recognition of social responsibility	• One example for how to reduce the gap would be to reduce working hours for all so there is a lower level of unemployment and the wealth is shared more equitably or encouraging employers to take on more employees.
Cornelia Major 200204125	• Stop urban sprawl to reduce negative impacts on the environment, travelling times, fuel consumption, limited public transport use and social problems	• Strictly limit new land releases, encourage smaller blocks and reduce road reserves in neighbourhood areas • Local governments should be strongly encouraged to increase density
Gerrard Mullen 200204664	• Greater application of the retaining significant trees and/or vegetation on urban blocks would greatly reduce the impact of development • Barriers to achieving these commonly known measures of sustainable practices include cost, lack of choice in the marketplace, limited desire to accept new sustainable technologies etc • Communities must be open minded and must consider how significant each contribution towards sustainability can be. With society adopting these developments the start of change will be initiated which can lead to an increased focus on sustainability as the average person sees the concept of sustainability enacted in their suburb • Examples of best practice are the Piney Lakes Environment Centre in Winthrop and Murdoch University sustainable energy centre	

Ruth Balding 200205374	• To progress sustainability in WA would be to develop our cities and towns into sustainable cities and towns • Sustainable towns would have good public transport infrastructure, good walking, cycling paths and general access and have green corridors. Waste would be recycled into other materials or energy products • *The practice of total destruction of the natural environment is unwarranted and depressing*	• Incentives must be put in place for building commercial and domestic buildings along sustainable lines e.g. the Government rebate on installing solar hot water services • Guidelines should exist for developers of housing estates whereby certain plants and trees must be retained and incorporated into the landscaping • Larger percentages of natural bushland areas need to be preserved as nature reserves in residential housing developments • All bushland reserves must be linked by corridors
Christine Heal 200205705	• Perth's reputation as a 'clean' city is only in relative terms • *It is less likely now that society as a whole can achieve sustainability, but…some communities can or will be able to do so. Individuals can not achieve it on their own as it requires co-operation with others* • Our society no longer has any clear goals. They used to be family and community	
Quinns Rocks Environment Group 200206967	*The local experience says much about sustainability, or unsustainability. Large swathes of bushland habitat have been cleared for housing estates and more is earmarked for future low density residential development. Many people have moved here because land is relatively cheap but job opportunities and services are limited, and the car is the primary means of transport and car dependence is built into urban design. The local community has protested against landfill waste disposal at Mindarie, urban sprawl affecting bushland and encroachments on Neerabup National Park, but decision-makers have taken little notice. Much of what we have raised concerns over was planned long ago without public involvement or much thought to environmental or social implications.*	*Modify the Liveable Neighbourhoods community design code to take account of biodiversity and landscape issues and apply it to proposed urban development in the North West Corridor. This should mean local bushland areas are identified and retained. The code should also ensure that street design and location of land uses reduces car dependence and provides a range of job opportunities, shops and community services.*

Hills Ecovillage Project 200207496	• *The term "ecovillage" refers to urban or rural communities who strive to live a sustainable, satisfying lifestyle in harmony with each other and the Earth. This is a community based not-for-profit initiative which aims to inspire and facilitate the development of ecologically sustainable communities. Our initial goal is to create an ecologically, socially and economically sustainable ecovillage in the Hills area of Perth, Western Australia, which will serve as a model for successful ecovillage development throughout Australia and the world.* • *It is envisaged that the desire for a sustainable, community based lifestyle is likely to expand far into the future, creating an ongoing demand for people skilled in the creation of ecologically and socially sustainable settlements. The development and acquisition of these new skills is central to the process of designing and building an ecovillage. The Hills Ecovillage Project thus aims to produce not only a world class ecovillage, but also to create in the process a team of highly skilled and committed people who will continue to advise and assist in the design and implementation of other ecovillage projects in Australia and throughout the world, through the on site community education and training centre.*	• Hills Ecovillage proposal delivers a solution to the challenge of finding new approaches to development that contribute to our environment and society now without degrading them over the longer term • The project has generated a good deal of excitement amongst the wider community and the questionnaire responses indicate we are not appealing to a narrow group of people. *The spread of age, family situations and socio-economic mix indicate a high level of community interest. This has revealed to us that the major concern for potential residents was the creation of a safe space to play and work, whilst considering the needs of the environment and the individual.* • *Our market research to date has provided valuable information concerning the expectations, values and ideas of potential lot owners and confirms that there is a strong demand in the Perth area for a genuine, community based ecovillage.* • *There is evidence of a serious gap between this potential customer base and what is currently on offer in the way of commercial land sub-division.* Currently genuine ecovillages fall far outside the typical scope of commercial property development. • *We believe there exists both an opportunity and a necessity to plan, develop and build a world-class ecovillage in the Perth region, to serve as a working example of sustainable development at the community level.* • *Implement reform within the WAPC to streamline ecovillage zoning and relieve the back log of planning approvals.* • *Assist in the statutory processes of ecovillage proposals* • *Provide financial assistance to feasible sustainability projects* • *Assist individuals and organisations to locate information and skills required for projects, community development; and network development.* • *Provide assistance for local experts to export their knowledge and skills globally* • *Promote the propagation of ecovillages as a sustainable alternative* • *Assist in the release and acquisition of suitable land for ecovillages* • *Encourage public and bipartisan government participation at a grass roots level* • See submission for more information about Hills Ecovillage.

Tad Zalewski & Associates 200206631		• *Consider a concept of group housing (eg an eco-village which is community- orientated), instead of the typical urban (sterile) sprawl. eg 10 – 20 houses in a village layout, can equitably share the cost of community services such as grey water and storm water recycling, PV power generation, high quality communication equipment, shared workshops and hobby rooms that can be used to train our youth in life skills, (similar concept to how apprenticeships worked in the past) etc…*
Park Farm 200206511		• Please see submission for Park farm's eco-village project proposal (including living, farming and education for sustainability). • *Enhance the role of the WAPC by briefing staff on sustainability and planning issues.* • *Identify and eliminate backlogs of planning approvals within the WAPC* • *Establish a team to assist eco-village proponents to;* - *develop their proposals;* - *facilitate progress through statutory processes and;* - *report to government to further improve understanding at all levels of government* • *Provide funding in the form of grants or loans to innovative sustainability projects of this nature.*
Christine Heal 200205705	• *Housing demands have gone up as families and relationships have fragmented. People appear to have more problems with relationships and cannot or will not share facilities. These are factors in our impact on the environment.*	

Halliburton KBR 200206710		• *Planning for liveable communities needs to take much more account of social and environmental needs, by encouraging and providing for sustainable transport, recreation and ecosystem services.* • *Fundamental changes are required to ensure sustainable existence* • *These changes involve reducing or reversing the impact of development on ecosystem support processes, such as wetlands, rangelands and riverine environments, and re-design of community structures and transport systems. Many of these changes would also improve the quality of life of communities. However, many of these changes are large scale, complex and controversial, and typically require government planning, involvement and stimulation. They require courage and vision to implement.*
The Environmental Alliance 200206616		• *The conservation of urban bushland should have greater priority in planning decisions.* *Planning public infrastructure, city design and all new building to improve quality of life and reduce the impact of consumption by:* • *encouraging local shopping options rather than regional shopping centers;* • *designing creative, diverse playgrounds and recreational areas;* • *use harmonious landscaping;* • *prioritise family friendly, disability friendly, environment friendly development;* • *plan cities around smaller neighbourhood centres of activity;* • *plan streets for people not cars by prioritising pedestrian friendly streets, footpaths, bike paths and public transport. Include quality seating and other footpath facilities. Don't forget banners, sculptures and road murals; and / or* • *prioritise public art, public open space and community facilities. Think beautiful and if in doubt leave things natural.*

Managing Freight and Regional Transport

Peter Ravine 200200763	• Development of rail: reduces road construction and maintenance costs; assists in development of industries as it can move large tonnages large distances	• Need for development of a Perth to Darwin (via Katherine) standard gauge rail connection to service coastal communities and industries en route • Use 5 to 10 MW methanol fuel cells for motive power and a standby methanol/diesel generator for standby. Could encourage other Australian railways to change to methanol (possibly produced in the Burrup)
Bernard Bischoff 200204129	• Relocate Bunbury Railway Station to Koombana Drive to encourage people to use rail when travelling from Bunbury to Perth. Co-locate a new City Administration Centre with the Railway Station in Bunbury to ensure that rail is prominent in the city-scape of Bunbury. Allowing the train to pass by the Dolphin Discovery Centre would be a good advertisement for the Discovery Centre.	
Cornelia Major 200204125		• Reduce Main Road's budget in favour of non-car transport such as public transport, provision of better cycling facilities and better footpaths
Danielle Brown 200204665	• Cut down global emissions through increased use of public transport • The lack of secure areas to lock up bicycles can discourage riders • Bike Week encourages people to look for alternatives to cars	
Keith Jones 200205377	• As global oil production nears its peak and the threat of global climatic change mean that there is a need to swing away from the current emphasis on road transport. This shift in paradigm for the community at large will result in a reduction of fossil fuel consumption and reduced greenhouse gas emissions	• Investment and expansion of current rail networks must occur to counter the impact of rising cost and scarcity of oil supplies. To achieve this end, a larger portion of the transport budget should be dedicated to rail rather than road transport systems, rather than increase taxation • Initiation of a programme to establish and preserve future rail transport (both light and heavy) corridors and routes through existing metropolitan areas and beyond • Each government should be obliged to lay at least 10km of new passenger or freight rail within the greater metropolitan area each year. In regional areas there should be an ongoing commitment to reinstate and upgrade country freight lines and sidings to encourage freight and passengers back onto rail

Preserving Air Quality

Stuart A Hawkins 200204122	• Perth Air Quality Management Plan attempted to address air quality management issues. Recommendations focussed on improving efficiency of pollution sources (e.g. wood heaters, vehicles) rather than changing the fuel sources that cause the problems (e.g wood heaters to gas heaters, petrol to LPG). Incremental steps have failed to successfully address sustainability issues in the past	• State should encourage all local governments to participate in the Cities for Climate protection programme to address local air quality problems.
Lisa Clarke 200204546		• *Only through our government can we even begin to clean up & end atmospheric pollution. Stricter penalties, more laws to protect our atmosphere - and back them up -enforce them.*

Reducing and Managing Waste

Ellen Brook Integrated Catchment Group 200203498	• Improve waste management and recycling technology and facilities	
K.D. Walsh 200204451	• Need to reduce the use of plastics. Polystyrene cups and packaging should be stopped. • Examples of best practice management is recycling, value-adding of green waste to mulch and 'Biomax' reticulated waste systems	• Reduction in the use of plastic bags could be achieved by the stopping the use of plastic bags at shopping centres and re-introducing recycled paper bags and cardboard boxes
Kim Reid 200204452		• Some shopping centres recycle plastic bags. • A charge should apply to using new shopping bags to encourage people to bring their own • Supermarket employees should conserve the amount of shopping bags that are used to pack groceries
Brian Bucktin 200204123	• If further increases in our population occur sewage will be a luxury that we can no longer afford	• Compostable toilets need to be introduced as an alternative. Massive savings would occur in use of water, power and in efficient use of nutrients

Stuart Hawkins 200204122	• Landfill is an archaic form of waste management that has no place in a sustainable society due to the threats to human health and potential groundwater contamination	• Realistic targets to be set by State Government for all local governments in the metropolitan region to operate secondary waste treatment / recovery for domestic waste • Adopt the South Australian scheme for 5c return on drink containers to reduce litter and increase recycling • Domestic packaging should meet sustainability criteria to reduce landfill. Over packaging must be assessed (e.g. the product is in 2 layers of plastic) and packaging should be redesigned
M.J. Norman 200204690		• Charge 50 cents per plastic bag at shopping centres. This would reduce the costs of landfill, rubbish transport and petroleum used to make plastic
Men of Trees 200204767	• Consumers might refuse to buy products in excessive packaging or that have containers that can't be refilled	• Adopt Stirling City Council 'one bin' garbage collection system in all local municipalities. This scheme separates garbage for recycling and landfill reduction in one central location • Encourage recycling of containers by promoting refill principle • Promote idea of secondary use (e.g. packing cases that can be de-nailed and reused even at a higher value than the original • Subsidise industries that use recycled materials as their raw materials
Darralyn Ebsary 200204764	• New and alternative industry could be developed to use the rapidly growing resource of recycling and waste disposal. • We need to consider more 'earth friendly' packaging and reward industry that takes lead in this area. • The whole community should be educated in using less plastic and encouraged to recycle more effectively	
John Snowden 200204671	• Recycling bins provided by Shires is a good example of sustainability being initiated and reducing the amount of landfill • Much rubbish could be turned into compost and used in domestic gardens	• Local shires should provide compost bins as well as recycling bins. The cost of the compost bins could be added to our rates. Education on use and environmental benefits of compost bins should also be provided. • Businesses, schools and universities should also be part of a composting program

Daniel van Mens 200205062	• The National Packaging Covenant, Environment Australia states '*It is not prescriptive, does not tell companies how to make their packaging or what type of packaging to use; nor does it implement regulation requiring businesses to take back materials recovered from kerbside collection programs'*	• Legislation is required to allow companies to only use particular types of packaging and to take back recycled materials. This could have an enormous impact on the sustainable recycling of packages.
Ruth Balding 200205374	• Red Hill Disposal Facility is a best practice example of how Perth's domestic waste should be handled and treated	• There should be an aim set to have all packaging being made of recycled materials that can be recycled again • Using hard plastic crates to transport all the shopping from the supermarket to home instead of using plastic bags, as the crates can be reused

Amcor Recycling 200206509	• Amcor has excellent environmental record (including awards for water and energy efficiency) and has been referred to as best practice/benchmark • Supports community programs and organisations • *Nearly half of the recyclable paper and cardboard of WA is lost to landfill* • There are many direct and indirect economic incentives for the community to recycle (see submission for figures) • Commends Waste 2020 taskforce – waste as resource use challenge rather than disposal one • Stirling Council's single bin strategy is *not* favourable because the paper's potential to be recycled and used more than 8 times is lost (waste goes direct to secondary processing to get "soil conditioner") • Solid Waste and Energy Recycling Facility (SWERF) proposed for Maddington is *not* favourable because materials recycled may be contaminated and of low quality • Real sustainability *cannot* be achieved through such "once-through" reuse strategies/quick fixes • Each tonne of paper and cardboard fibre lost to the recycling industry is replaced by virgin fibre which costs more (driving higher prices to consumers), uses twice the energy, four times the water and produces ten times as much effluent as using recycled fibre • Waste management constantly evolving and recycling is an important part of the solution • Community-wide commitment to resource recovery has significant social value	• directly address issues evolving in waste management in holistic way, particularly ensuring maximisation of recovery and recycling of resources • New solutions are not necessarily better, and often not as effective as improving existing ones – especially in medium to long terms eg the existing Government resource recovery rebate scheme offers real potential but its implementation need to be improved dramatically to refocus efforts and attention on driving the most sustainable behaviours • True sustainability requires new collective understanding of resource use involving understanding the value a resource offers during its "use cycle" • True resource recovery is needed • It is important that businesses embrace recycling • Learn from lessons of other resource industries • Problem is waste management choices lie in gap between local and state government, with stakeholders circling around trying to influence decisions • Recycling seen as expensive –local recycling schemes more expensive the more complex or frequent the service. Rates increases disgruntle ratepayers. Recycling not expensive in long-term therefore need to think of "big picture" and long-term • Local councils often make decisions for us based on their local impact and costs alone • New social norms and sense of shared responsibility is needed. Recycling at home and work important for this. • Establish effective waste minimisation strategies and sustainable secondary resource recovery systems • Best solution for medium to long term is fully integrated resource recovery system including full-scale recycling • Ensure partnerships at all levels – waste is a resource – new forms of cooperation, thinking and making and evaluating choices is needed – decisions based on value adding principles and meaningful bottom line results Value add: • Recycling value adds to communities • Can't expect local government to bare all the costs and responsibilities and make big picture decisions when system separates them from big picture consequences, good or bad • Move beyond separate interests and balance sheets to industry-wide value adding • Not "either-or" position but "win win" – have both kerbside

Global Renewables Limited 200205463	• Lack of guidance for integration of sustainability principles in the waste industry • Pervasiveness of waste crisis – sustainable waste management solutions critical • Traditional waste infrastructure and services not environmentally acceptable and not sustainable • Landfill further depletes resources (burying valuable resources) and significantly increases greenhouse gas emissions and toxic leachate which contaminates groundwater • landfill is cheap only if environmental, health and resource security issues are disregarded. – environmental problems emerging for past landfilling require significant expenditure (eg remediation at Sysdney Olympic Site cost $137 million and requires ongoing environmental expenditure • investment in waste treatment technologies and infrastructure is emerging (see submission for examples of countries that have banned landfilling of municipal solid waste) • waste management services critically important to efficient functioning of modern society • growing body of (environmental) evidence indicates current waste practices must be changed	• Need for sustainable waste infrastructure and services • New waste management also needs to be economically sustainable: • the true cost of landfilling must be identified • establish appropriate waste “beneficiating” infrastructure which recovers and recycles valuable resources from the wast stream (to decrease quantity to landfill) • more stringent landfill specifications can be imposed (eg requirement that landfills are designed to have 200 yr lifespan – although still intergenerational equity problem) • progress towards “closed loop” resource use • focus on providing support for development and implementation of waste infrastructure projects whilist providing essential waste management services and infrastructure • businesses need to structure environmentally sensitive infrastructure projects to provide a return on investment over more appropriate (longer) time periods (to account for social and environmental externalities – the true costs of the project). Measurement of costs in short timeframe is no longer feasible, accurate or acceptable) – triple bottom line accounting is needed • Better management and accountability in marketplace and domestic resource use decision-making is needed (towards efficient and competitive private sector) • Future waste policy to be transparent and involve real/ full social, environmental and economic costs • Learn from overseas and also help neighbouring developing countries experience similar benefits • Government and business must work together to support waste developments

Quinns Rocks Environmental Group 200206967	•	• *Develop a comprehensive waste management strategy for the North west Corridor to reduce waste going to the Tamala Park/Mindarie landfill. Community involvement in waste reduction and recycling should be actively promoted and environmentally sound, appropriately scaled waste treatment technologies put in place. This needs to be linked to a statewide effort to cut waste through cleaner production, reduced resource consumption and development of reuse and recycling systems and markets.*

Halliburton KBR 200206710	• *With its wide open spaces and apparent limitless natural resources, there is little incentive in Western Australia to recycle resources, particularly of natural materials. However, disposing of waste material represents the loss of potentially valuable material, and constitutes a cost associated with the construction of, and transport of material to, waste disposal facilities, not to mention the potential environmental impacts associated with their operation.*	• *Reduction in the generation of solid waste is the first step in managing waste. The mechanisms to bring this about include the following:* *a. improved production processes to reduce the production of off-specification material;* *b. closer alliances between producers/suppliers and consumers to deliver only the quantity and dimensions that the end user requires;* *c. wider adoption of the concept of extended producer responsibility whereby a manufacturer/supplier is responsible for the ultimate fate of the product, including the packaging.* • *Waste will always be generated so there needs to be greater incentive to recycle the material. The concept of a landfill levy has merit, and a larger levy should lead to greater recycling. However, high landfill levies result in other problems and issues, such as illegal or indiscriminate dumping, which has the potential to destroy many areas of high conservation-value bushland. To counter this, an extensive and expensive system of licensing, surveillance and inspection is required.* • *A system of rewards for recycling is better than a system of penalties for not recycling. An alternative to a waste levy is payment to generators for material delivered for recycling. This is well established for scrap metals which have a value. The difference between metals and most other materials is that society has not valued other materials sufficiently highly. However, most material can now be recycled, including green waste, plastics and paper, so that the material now has value. The payment could be funded by government, in which case government purchases of the end product, such as roadbase from recycled concrete, carpet from recycled carpet material, or stationery from recycled paper, would be at a discount because the product has already been partly paid for.* • *Such a strategy would provide an incentive for government to use recycled material (renamed recyclate). However, other incentives also need to be introduced for government to use recyclate. These could include a tender requirement to supply goods with a certain (stipulated) percentage of post-consumer waste content. Further, there could be a levy (or an increased levy where there are already royalties) on the use of virgin resources to reflect the reduction in natural capital and environmental impact associated with activities such as mining and forestry. This would make recyclate more economically competitive*

J.E. Wajon 200206629		• *There needs to be greater incentive to recycle so-called waste material into new material (re-named recyclate). A landfill levy has merit, and a larger levy should lead to greater recycling. However, high landfill levies result in illegal or indiscriminate dumping, which has the potential to destroy many areas of high conservation-value bushland. To counter this, an extensive and expensive system of licensing, surveillance and inspection would be required.* • *An alternative to a waste levy is payment to generators for material delivered for recycling. This is well established for scrap metals which currently have a value. Most material can now be recycled, including concrete, green waste, plastics and paper, so that the material now has (or should have) a value.* • *The payment could be funded by government, in which case government purchases of the recyclate, such as road base from recycled concrete, carpet from recycled carpet material, or stationery from recycled paper, would be at a discount because the product has already been partly paid for. Such a strategy would provide an incentive for government to use recyclate.* • *It would also not penalise businesses following normal business practice, but would benefit entrepreneurial businesses and those following a sustainable path, thereby making them more competitive and profitable. Other businesses would hopefully soon follow suit. Other measures also need to be introduced for government to use recyclate. These could include a tender requirement for tenderers to supply goods with a certain (stipulated) percentage of post-consumer waste content* • *Extended producer responsibility requirements should be introduced in order for producers to take responsibility for the product once its original life has ended, as well as for the packaging. If manufacturers were required to take back the monitor and hard disc, and there would be an incentive to change the design of the equipment to enable it to be disassembled and the components reused more readily. Government should take the lead by giving preference to, or requiring, tenderers that practice extended producer responsibility.* • *Further, there should be a levy (or an increased levy where there are already levies or royalties) on the use of virgin resources to reflect the reduction in natural capital and environmental impact associated with activities such as mining and forestry. As well as making recyclate more economically competitive, such a levy could fund the payment for material accepted for recycling*

Phillip Sharp 200206388	• *When a treelopper chops down a tree, all the leaves and branches up to a certain diameter, are chipped into mulch. This leaves the main trunk and any large branches which are then disposed of at a landfill site, attracting a large dumping fee.* • *This is because there is no commonly known use. If more people were aware of a use for treelopping waste, more people would be willing to support these uses.* • *I (1 person) have been able to process 100 truckloads of treelopping waste form only 1 treelopper. These are perfectly good logs of varying species of timber. They come from trees grown in our city streets, parks, schools and homes.* • *I mill these good logs into useable timber, using cutting edge technology in the form of a horizontal bandsaw.* • *All the offcuts and everything else not suitable for milling, is processed into firewood which I sell to the public.* • *All the bark and sawdust is scraped into a pile and composted into beautiful soil which I use on my own gardens. This composting is achieved through organic means using worms, aeration and time.* • *All waste products from each process can be re-recycled into the next process.* • *By processing this waste into firewood, it instantly changes form waste to a useable product. It becomes an alternative energy source. Heat. This energy source gets wasted everyday whilst we still cut down our native forests for firewood.* • *By processing this waste into useable timber. I am value adding to the highest degree. I am able to manufacture products out of this timber* • *I am now hoping for financial assistance or recognition for my efforts which will assist future generations.*	• Green waste from treelopping should not go to landfill as it has many uses and should be utilised and not wasted. *Here are some of the main reasons why we should recycle treelopping waste:* • *Directly reduces the amount of waste going into landfills.* • *Creates employment* • *EcoEfficient, Resources Renewable, Sustainable Energy.* • *Creates Alternative Energy Source. Eg. Firewood* • *Recycles Waste and Value Adds* • *Manufacturing from Value Added timber = more value adding* • *Someone has to build it! Which creates more employment* • *Finished product creates environmental awareness eg. Displays.* • *Creates an income, cash flow, financial incentive* • *Environmental Awareness = opportunity for public input, through sales.* • *Awareness means the public and people in power eg Councils, Landscape Architects etc can participate by planting the correct "Timber tree".* • *Urban tree planting can be a way that everyone can contribute to combating Salinity problems which can be caused, and consequences felt, due to the overuse of bores, within urban areas.* • *By planting a tree, Natures natural filters, people can choose to contribute to an EcoEfficient, Sustainable, Environmentally aware, Waste Minimisation project.* • *By planting the correct tree, a supply of timber can be obtained. The opportunity exists to plant endangered species eg Red Tingle and Karri, outside of their natural habitat.* • *A revegetation project could become a timber plantation, applicable to: mine site rehabilitation, land rehabilitation, Landcare, streets, parks, schools and homes.* • *This project offers many opportunities including; waste minimisation, cleaner production, increased employment, increased environmental awareness, financial incentives, greenhouse gas reduction due to tree planting, carbon storage facilities, woodwork, carbon credits, reduced salinity due to tree planting, manufacturing capabilities, training potential, multitudes of products including; firewood, timber, charcoal, activated carbon and any other Native Forest Product eg posts and poles.*

Swan Catchment Council 200207915		*Issues around pollution and contamination, waste management and the role of local government should be more clearly defined in the final Strategy*
Tad Zalewski & Associates 200206631		*Recycle all waste materials: ie domestic, industrial, construction industry, process plant waste, animal processing waste, hazardous chemical wastes, etc….*

Our Water Future

Dr M Anda, Dr K Matthew and Professor G Ho 200204144	• Traditionally Wastewater has been disposed with minimum treatment, has had no economic value and has been kept as far away as possible from settlements. This conventional system of Wastwater management is unsustainable for a number of reasons such as: loss of valuable water and nutrient resources (250ML/day in Perth); the massive investment and energy in pipelines and pumping; it leaves the problem for future generations. • Wastewater should be considered as a resource. The treatment of wastewater makes reuse possible through practical technologies that result in the closure of nutrient cycles. Therefore wastewater treatment is economically acceptable and encourages sustainable systems. • Wastewater reuse or recycling could be managed in small to medium onsite or localised systems, practical for household or municipal scale systems. Currently there are a number of systems available to treat household grey water, sewage, storm water and some industrial water. • The advantages of onsite wastewater recycling systems include: localised reuse possible; greening of urban and rural areas; water savings (up to 50%); distributed effluent loading; Nutrients can be assimilated or reclaimed; Local and Australian technologies exist; promotes innovation, economic development and creates employment.	• Legislate and promote grey water recycling • Expand country town reuse • Decentralise Water Corp facilities by sewer mining for local reuse • Establish model subdivisions to demonstrate onsite systems • Support local government initiatives • Community awareness raising

Cornelia Major 200204125		• Increase water consumption prices to reflect the value of the resource and encourage people to use water more wisely
K.D. Walsh 200204451	• The substantial amount of water used in production nurseries, market gardens, golf courses and recreation areas and the leaching of nutrients and water in the sandy soils must be reduced to ensure sustainable water use. • An example of best practice is restricting the use of lawn and garden reticulation systems	• Use of reticulated treated wastewater systems to reduce the burden on groundwater supplies and possibly reduce the use of synthetic fertilisers • There is the opportunity to design and implement domestic sewerage and grey water recycling systems for use on lawns and gardens for individual houses • Mandatory inclusion of rainwater collection and storage tanks into Building Regulation' standard minimum requirements
Stuart Hawkins 200204122	• Regulations that prevent domestic water recycling should be relaxed to allow water recycling. Relaxation of these regulations will need to account for nutrient influxes resulting from this	
Brian Bucktin 200204123		• Legislation should be introduced requiring water catchment and storage systems as a mandatory requirement for all new public, private and commercial buildings • Incentives should be provided to retrofit existing buildings with water catchment and storage systems • Encourage further introduction of native garden or other water conservative features in all new housing developments • '*Outlaw lawns'*- promote conversion of lawns to water conservation style gardens (e.g. native)
M.J. Norman 200204690		• Calculate 'reasonable water usage' based on land area and geographic location of a residential property. Substantially increase the cost of water per unit above this base line. This could save the cost of continuously developing new water resources
Men of the Trees 200204767		• Provide water conservation incentives for new housing including: 1. Rainwater tanks 2. Rainwater cisterns under the house 3. Safe use of domestic greywater
Darralyn Ebsary 200204764	• *The last few summers have shown us just how vulnerable we have become to our growing population and changes in weather patterns. We need to acknowledge the fact we live on a mostly desert continent with perimeters of Mediterranean and small regions of sub-tropics*	• Encourage/enforce the provision of rainwater tanks on all dwellings for drinking, washing, toilets or gardens • Encourage/enforce industry to recycle water and harvest water from their roof catchments to assist them in their requirements for water

John Snowden 200204671	• If all houses had rainwater tanks, this would ease some of the pressure on water supply	• A partial government subsidy for installation of rain water tanks and ratepayers could pay the cost of the actual tank through their rates over a cetain period. This should be a voluntary exercise
Gerrard Mullen 200204664	• Greater application of harvesting of rainwater, recycling of greywater and waterwise plant selections for gardens would greatly reduce the impact of development • Barriers to achieving these commonly known measures of sustainable practices include cost, lack of choice in the marketplace, limited desire to accept new sustainable technologies etc • Government's subsidies for water saving devices are insufficient to break the trend of water use	• There is a role for business, community and government in facilitating these changes
Jodi Ogilvie 20025061		• Incentives should be given to people wanting to recycle greywater and install rainwater tanks to conserve water
Daniel van Mens 200205062		• Recycling of water should be compulsory for business and industry. To ensure water recycling is occurring, all water use should be monitored and perhaps penalties should be put in place for those not abiding to the regulations. • Water use should be monitored for households, landscape gardens and golf courses etc, however, it would probably not be feasible to recycle water for gardens.
Wetlands Conservation Society (Inc) 200205351	• More emphasis is needed on the need to conserve biodiversity and water resources in the State Sustainability Strategy. • *WA has an appalling record for mismanaging its biodiversity and water resources*. Currently aquifers in many parts of the State are being over exploited.	• A State Water Resources Strategy needs to be implemented that includes a water efficiency strategy and further exploration of our underground water resources to ensure they are managed suitably
Danielle Brown 200204665	• Water use and management is a critical issue in achieving sustainability. • The option of using deeper groundwater should be investigated to assess the practicality of using this and the impact of use on the remaining water table levels • Water restrictions through drier months are an excellent idea	

H20 Purified Drinking Water 200205059	• *Climate change, population growth and pollution, all threaten the supply and quality of Perth's water.* These issues need to be considered to achieve sustainability of WA's most precious resource- good, clean drinking water	• H2O Purified Drinking Water company has a proposal to install 'Point of Use' scheme water filtration systems to replace bottled water for all government agencies. This would allow government to save money that could be reinvested into sustainability priorities. • Split the distribution of water to deliver two water qualities depending on the use so that: 1. Scheme water is used only for drinking, cooking and cleaning. It should only be used for domestic purposes, so it should only be delivered to points inside the house 2. Ground water is used for reticulation and industry
Ruth Balding 200205374	• *There seems to be a lack of recognition or acknowledgement that Perth in particular and Western Australia in general faces a water crisis; the lack of water resources, problems about renewal and supply against growing demand, and a culture of general wastefulness* • *Total conflict of interest prevails with the Water Corporation responsible for the conservation of water and the need to increase sales to generate more revenue*	• Introduce a regulation where all homes are required to install a water tank to reduce the impact on domestic water consumption • Allow greater use of grey water • Phase in the reduction of the use of lawns and plants that are not native to WA in domestic gardens
Dr Robin IW Collin 200205458	• Due to the water restrictions, discussion at community level vis a vis water requirement for lawn, paved yards, English or European versus native gardens is occurring • Rainfall in the South West has decreased by 20% and runoff into dams by 40% over the past 20 years. 7 out of 9 climatic models forecast that the southwest will continue to become drier • The cost of substantial supplies of desalinated water is about 50% more than current scheme water supplies. Kimberley pipeline water would be about 5 times more expensive.	• Local councils have started to consider subsidising the development of native gardens • *If scheme water is to be supplied at current relative costs to the user, there needs to be a substantial decline in demand per person or a substantial decline in the population using scheme water at current consumption rates*

Clint Garrett 200205462	• Life as we know it is not possible without water. • Over recent years problems with the availability of reliable water supplies, quality of water and cost of water have become more apparent, but there is little evidence of tackling the problem beyond restricting garden watering. • The problem of towns disposing of sewage via septic systems that discharge to groundwater above the water table that supplies the local community, must be addressed. Effluent could reach the water and pollute it. • WA has little evidence of native plants used in local gardens. These plants are adapted to the climate and need less water than exotics. • Very few motels have low flow shower heads which is a simple method of conserving water. New York city gives these shower-heads to residents as the have found this to be cost effective. • New York city has also found it cost-effective to keep a significant area of Hudson catchment in forest, rather than building a large treatment plant to clean up water. • We have to find ways of desalinating the sea at a reasonable cost. Using direct solar energy is the most efficient way. Whyalla, SA, is working on a project to use parabolic dishes to desalinate 9 mega-litres of water per day and provide 5 mega watts of power at the same time. Reverse osmosis process involves generating power and then forcing water through a membrane. There are energy losses at each stage of the process and all power generated would be used up. Therefore reverse osmosis should only be used where absolutely necessary.	•

Kate Akerman 200206728	• best practice example: a property at the Vines in the Swan Valley is not connected to metropolitan sewer grid so is allowed to use greywater and has developed a system for using collected rainwater and reusing greywater. The system cost about $7500 (quite affordable) and has allowed for a veritable oasis in an arid area. The Water Corp has explained that such systems could cause possible contamination of soil if inappropriate materials were allowed to pollute the soil without being removed by a sewage system. However, education on pollutants could remove this risk, especially for people already interested in conservation and reliable alternative systems.	• Government should legalise this alternative access to water and give serious attention to development of greywater systems
	• There has been commitment to sustainable water management but there is still much potential for further change • Use of less water intensive processes by consumers and businesses will help alleviate water shortages and reduce energy consumption • The 1999 report 'Water and the Australian Economy' states water usage will grow significantly in Perth, Goldfields, Gascoyne and Pilbara and Kimberley regions, in areas outside of perth due to rapid expansion in mining and industries which are water intensive such as irrigation • The report recommends: 1. improved distribution system efficiency through new infrastructure investment 2. improved farm efficiency particularly in the area of irrigation technology 3. implementation of the COAG water reform framework, requiring maintenance of water regulations and maintaining flexibility in water distribution	• incentives for water users ie subsidies for water saving devices and rewarding customers who use less water by reducing their water rates • more research into new water saving devices • investigate options for recycling sewage water for garden use (this is being trialled elsewhere)

Halliburton KBR 200206710	• *The Woodman Point Wastewater Treatment Plant has been upgraded by Halliburton KBR in concert with its Alliance Partners to remove organic matter and nutrients in a Sequencing Batch Reactor to produce a refreshed water suitable for irrigation and industrial reuse.*	• *Water use needs to become sustainable, and targets need to be set and projects implemented for reducing water consumption and wastewater recycling.* • *One of the obstacles to efficient water use in Western Australia is its low price. Scheme water is relatively inexpensive compared to other bulk goods, and especially compared to bottled water. Groundwater is even cheaper and in many areas and for many applications (except drinking water) can be supplied solely for the cost of pumping (once the infrastructure is in place).* • *We need to go further afield to obtain additional supplies of fresh water, and the over-application of water and fertiliser for irrigation leads to contamination of groundwater and wetlands. Further, the construction of additional dams affects the ecological health of those remaining rivers and wetlands which are not already impacted by reduced flows.* • *Water management needs to be extended by limiting the amount of groundwater that can be used for private, public and commercial use, perhaps by licensing and pay for use, especially in areas where such use impacts on environmental values such as wetlands and groundwater-dependent vegetation. Such restrictions will lead to desirable changes and innovations in the method of delivery of water (e.g. drippers), the purposes for which water is used, and the source of water. This will result in greater water use efficiency, reduced pollution and increased opportunity for other users of the resource.* • *An under-utilised source of water is domestic wastewater. There are significant opportunities for reuse of treated domestic wastewater for the following purposes:* a. *industrial cooling and process water;* b. *horticulture: irrigation of market gardens, orchards and vineyards;* c. *irrigation of public parks, gardens and golf courses;* d. *irrigation of private lawns and gardens;* e. *aquifer recharge.* *Quality and especially health issues need to addressed in each of these applications, but there are many examples worldwide and indeed in Australia of successful wastewater reuse schemes.* • *Through proper treatment, wastewater can be reused for irrigation. Albany's wastewater is used to irrigate a 300-ha bluegum woodlot designed by Halliburton KBR.* • *While further research is needed to better understand all the implications, and especially issues related to long term sustainability (e.g. endocrine disrupters, heavy metals, salinity), the major impediment to wastewater reuse in Western Australia*

J.E. Wajon 200206629	• *For people in such a dry land, we use a lot of water, much of it unsustainably and for watering lawns and gardens.* • *Perth should not increase its dependence on water brought from other regions if it impacts on water-dependent ecosystems, such as rivers and wetlands. Any new (and existing) surface water diversion should provide for substantial environmental flows, while groundwater abstraction should be at the level of sustainable recharge and allow for the maintenance of existing groundwater-dependent vegetation and ecosystems.* • *We need to value water more highly and make better use of it.* • The desalination scheme (3rd option) has many benefits, such as the following: • *it is a means of desalinating the Wheatbelt in such a manner that costs can be recovered. This would restore the Wheatbelt for farming, protect and restore the biodiversity of the Wheatbelt, and protect the infrastructure around towns such as buildings and roads. Such a process will need to occur at some stage in the future in any event, unless a 30% loss of the Wheatbelt and its associated biodiversity is acceptable to the community;* • *one and possibly two useful water resources are created that can offset the cost of the scheme: fresh water and process water. In many instances, the process water would be less saline than the concentrate from a seawater desalination plant because the water to be treated would be less saline than seawater, and may thus be even more suitable as process water than the current saline water used by the gold mining industry in Kalgoorlie;* • *the cost of power per cubic meter of produced water for the Wheatbelt reverse osmosis desalination plant would be less than that for a seawater desalination reverse osmosis plant (such as that proposed for Kwinana or Esperance) if the abstracted groundwater has a lower salinity than seawater;* • *the need for large numbers of solar power stations would support or continue the development of a*	• *Consideration should be given to permanently introducing some level of water restrictions and conservation, and/or to permanently increasing the price of water. The price structure should incorporate higher unit rates for greater usage, and should incorporate the fixed charges into the unit rate so that there is a real incentive to reduce usage. Hopefully, this will send the correct message to consumers that water is a precious commodity and that it should be used wisely. Where water use is reduced, a rise in the unit price of water may not increase the total cost of water to consumers. Nevertheless, a base volume of water should remain at a reasonable price affordable to people on low incomes. However, that base level should be no more than 100L per capita per day, which equates to 36.5kL, half the current base level allowance.* • *Private (individual and corporate) borewater use should be licensed and maximum free water limits set based on water-efficient indoor and outdoor (irrigation) usage. Any usage in excess of the limit should be paid for at the same rate as scheme water so that conservation and the use of alternative water supplies are encouraged.* • *Everyone stands to gain from reducing the consumption of water. Water utilities should be able to defer development of costly new sources, and the cost of water treatment should fall as the amount of water required decreases. Water utilities should be encouraging (and subsidising) water conservation by giving away low-water use shower heads to everyone who wants them, and paying for the extra cost of horizontal axis washing machines whenever someone needs to replace their old vertical axis machine. The cost of such measures could be cheaper than developing new sources, especially if they require treatment.* • *Along with water conservation, Perth needs to increase its reuse of treated wastewater (refreshed water). Industrial reuse (process water and cooling water) and horticultural reuse (irrigation of fruit, vegetables, vines and turf farms) should be high priorities. Processes are available to treat and safely use refreshed water in these applications. If there is sufficient interest, refreshed water could also be used for irrigation of local parks, gardens and golf courses, as well as individual lawns and gardens.* • *The community should be involved in any reuse program to ensure that all the issues are addressed and there are no residual health or environmental concerns. Water pricing schedules should be re-structured, and include reduced rates for refreshed water, to encourage more efficient use of water and*

Lisa Clarke 200204546	• *Water is definitely a valuable natural resource, which we depend on infinitely.*	• *We need to educate at all levels - in simple terms -the importance of reducing our consumption of water.* • *My Government needs to continue to make laws to protect the waterways from pollution.* • *Since Australia has such a great need for water, wouldn't we be wise to consider desalination plants. I believe this would be expensive initially, but if we wait until the water runs out, what would be more important the money or the water?*
Cesira Leigh & Glen Ryan 200206726		• *Appropriate costing of water should be implemented immediately so that the general public understands the true value of water as a scarce commodity i.e. nomination and recognition of the real cost of this natural service.* • *Grey water reuse should be instigated along with a suitable public education campaign on both reusing water and general water awareness issues.*

Peel Preservation Group 200205797	• *We are running out of time to deal with the problem.* • *PPG believes your document has not given water sufficient prominence and requests that during Phase 2 and particularly the implementation of Phase 3, this will be rectified.* • *Australia has made commitments through the section labelled 'environmental services' of the General Agreement on Trade in Services (GATS) currently covering sewerage, sanitation and waste disposal, which our Department of Foreign Affairs and Trade is negotiating to have extended to 'environmental media, i.e. air, water, solid and hazardous waste, noise, etc.'* • *The huge cost of infrastructure for such items as a Kimberley pipeline to bring additional water to the City (as outlined by Jim Gill of the Water Corporation –"West Australian" 8.3.2002) resulting in a cost of $4 per kilolitre as against the present 70cents for scheme water, should indicate to any thinking person that conserving water by every mean possible is the better way to go.*	• *Following on the advice of Simon Toze (CSIRO) that storing of recycled water underground in natural aquifers has been found to purge it of disease-causing organisms, this information must point the way to the desirability of recycling grey water and waste water instead of disposing of it via ocean outfalls. We now need to know the cost of infrastructure and feasibility of doing so. More importantly we need to know the cost, environmentally and socially of not doing so. We must conserve and not waste our drinking water. Rights in Water legislation made it adamant that sufficient water must be reserved for the wellbeing of the environment.* • *More research and advice as to where compostible toilets are an acceptable alternative for new developments is an urgent requirement.* • *Western Australia's water must never be privatised. Nor should water be privately owned in any part of water-short Australia. It is understood the United States has financially flourishing water corporations that earn revenues greater than Microsoft.* • *Any moves by our federal government to aid and abet the privatisation of water here or elsewhere in the world is quite immoral, though it appears private ownership of water is being fostered in developing countries by the World Bank and the International Monetary Fund through the coercion of loans depending on the 'restructuring' of the water sector; meaning that they favour commercially owned commodities in order to reduce public debt.* • *The right to water must not be signed away in this manner.* • *There was the TV news announcement that W.A. dams are at 18% of capacity with no improvement expected as we enter another El Nino weather pattern and that sprinkler bans will come into force for the rest of the year. WE ARE ALREADY AT CRISIS POINT !* • *The Minister's response to this crisis, i.e. the putting down of more bores into our groundwater (in order to ensure his popularity and continued wasteful use) is anything but satisfactory.*

Swan Catchment Council 200207915		• Water supply must be addressed in the strategy.
Tad Zalewski & Associates 200206631		• *Economical Supplies (eg Consider Libya – and the Man Made River)* • *Re-energised Water* • *Clean, healthy water* • *Stormwater to be used to replenish ground water, plant and animal life and not unnecessarily drained to the oceans.* • *Waste-water recycled for industrial use.* • *House-holds to adopt roof water collection and the recycling of grey water. (See also Housing: the eco-village concept.)*
Chloe Weiter 200206633	• *The manner in which people (householders and businesses) use water is largely habit – cheap prices imply that water is plentiful and it will be used accordingly.* • *The relatively unrestricted use of bore water and the ability to install a bore in most parts of Perth without a permit must have a detrimental long-term affect on ground water supplies.* • *The water that bores are bringing to the surface is a public (probably non-renewable over our lifetime) resource, and yet people are able to utilise it at no cost to the detriment of the community as a whole.*	• *water is a precious resource. Since economic signals are the most effective method of changing consumption habits realistic prices need to be charged.* • *The best way to achieve social equity and sustainability is to have a block pricing system* (increased water prices as use increases). • *Bores should be metered and the water subject to the same charges and restrictions as water from the town supply.*

Andrew Thomson 200206383	• *Water is being mined unsustainably in Perth. Water is being overdrawn by 20 percent with bores and this will increase to 40 percent resulting in deaths of tree and other vegetation in Banksia woodlands. What is even more outrageous is that Water Corporation still advocates forest management to increase run off for metropolitan dams.* • *Their idea of forest management is to thin out the trees which would drastically alter the ecosystem. The community would not tolerate this action.* • *John Brennan from the Water Corporation (UNAA Water Seminar, 16 March, 2000) said that the demand for water by 2030 will increase by 80 percent while the rainfall was expected to drop by 20 percent.* • *The Water Corporation has a vested interest in selling more water so therefore is not really interested in reducing water use.* • *A stroll around almost any suburb shows the "cultural baggage" (a term adopted by Penny Hussey, CALM) of lawns and roses we have inherited from our colonial ancestors.* • *Native gardens and the absence of lawns are rarely seen. It is no wonder that nearly half our precious water goes on lawns.* • *Furthermore, environmentally friendly toilets, shower heads and washing machines are being introduced slowly.*	

The Environmental Alliance 200206616		• *Government should review regulatory and revenue frameworks so the goals of water and energy service providers are aligned with the goals of increasing water and energy efficiency and minimising per capita consumption.* • *Government should mandate energy and water ratings for all homes.* • *Local Government should implement water ratings and water efficiency standards for all new and renovated buildings as mandated by the State Government.* • *Industry should be demonstrating leadership in moving towards sustainability, e.g. through new home design and an education campaign within their association and the broader industry sector.*

Sustainable Energy

Sustainable Population Australia 200201710		• Need for Strategy to include a realistic assessment of what proportion of State energy needs can be met by renewables
Dr Gary Luck 200202587		• Place a tax on non-renewable resources to more accurately reflect their environmental and social costs • Provide financial incentives for people who use renewable energy
Ellen Brook Integrated Catchment Group 200203498	• New technologies must be attractive and affordable	• The renewable sector must become established and better represented within Western Power
Cornelia Major 200204125	• Provide more financial incentives for truly sustainable energy sources such as wind and solar energy	

Lindsay Snow 200204448	• Government, business and the community must take a greater role in developing and investing in projects and initiatives such as the Albany Wind farm, from providing grants or corporate sponsorship money to volunteer work • Wind farms should be developed closer to Perth (e.g Yanchep to Lancelin and Jurien). Government could even lease or purchase some of this land off farmers. Such a project could be used to supply local needs or used for the new Perth to Mandurah electric train to ease pressure on standard grid • Use some of the money from Government homeowner grants to help develop a cheaper more viable solar power options for housing to reduce fossil fuel use	
Brett Ranford 200204126	• Wind farms for power production are one of the most obvious opportunities for sustainability. Wind farms could potentially generate a large percentage of metropolitan power • More available alternatives to petrol such as solar power, hydrogen, electricity and gas must be pursued	
Kim Reid 200204452	• The Albany Wind farm is a very good example of progress towards sustainability. It provides renewable electricity, tourism and employment opportunities to the area	
Stuart Hawkins 200204122	• More investment is required in solar and wind technology so we can reach the point where greenhouse gas output from industrial and domestic energy consumption is zero. The current target for 2005-2010 for renewable energy replacement of 3% is insufficient. • Reducing energy consumption from unsustainable sources is the cornerstone for sustainability within a high energy use society	• We need to be looking at the replacement of 5% of the energy use with renewable sources per year

M.J. Norman 200204690		• Apply a carbon tax on fossil fuel sources to subsidise the development and implementation of renewable energy options. This could create many industries and jobs in renewable energy technologies
Darralyn Ebsary 200204764	• Renewable energy is an important area that needs major consideration and input. Isolation from electrical power grids in rural regions and persistent use of non renewable fuel resources seem to be valid reasons for using and encouraging the use of alternatives (solar, wind and methane power) • Researching the use and development of any other renewable resource that we can envisage also requires consideration in achieving sustainability	
Gerrard Mullen 200204664	• Greater application of the renewable sources of energy such as wind and solar power would greatly reduce the impact of development • Barriers to achieving these commonly known measures of sustainable practices include cost, lack of choice in the marketplace, limited desire to accept new sustainable technologies etc • Government's subsidies for renewable energy are insufficient to break the trend of mains power being the preferred choice in all developments	• There is a role for business, community and government in facilitating these changes • Increased subsidies for renewable energy would increase adoption of renewable energy sources
Jodi Ogilvie 20025061	• Natural energy resources can be replaced with renewable energy and energy efficiency	• State and Local governments should assist through providing urban and building design requirements to conserve natural energy
Danielle Brown 200204665	• Sustainability can be pursued through the reduction of fossil fuel use for energy by using wind power (e.g. Albany Wind Farm) solar power and tidal power (e.g. the proposed scheme in the NW of WA)	

Perth Energy 200204864	• *…more sustainable energy use is critical to the overall goal of achieving a sustainable community.* • The government formed the Electricity Reform Taskforce (ERTF) in August 2001 to comprehensively review the WA electricity market. • *ERTF has the opportunity to shape the direction of energy policy in WA for many years to come and its recommendations, if endorsed, will play a critical role in enabling WA to develop a viable and vibrant renewable energy industry.* • *Despite reform steps, there has been a dearth (especially in comparison to the eastern states) of independent renewable projects on the drawing board (besides those directly linked to Western Power). In terms of actual new renewable projects coming on stream, there has been none* • *…the existing vertically integrated structure of Western Power prevents the emergence of a vibrant renewable energy sector in Western Australia.* A conflict of interest in Western Power networks division developing and administering the network open access is inherent. • Government establishment of Sustainable Energy Development Office (SEDO) is an excellent initiative • Current discriminatory application of network access regulations has effectively allowed Western Power to install new renewable energy capacity on its own (e.g Wind Farms and Oil Mallee Project) • The limited projects directly installed by Western Power can be costly and inefficient due to the lack of competition, which in turn, discourages community support for renewable energy. This spiral created by market monopoly, effectively stifles the development of many innovative and valuable projects in WA	• *Eliminating this fundamental conflict of interest by vertically disaggregating Western Power is a proposal that is overwhelmingly endorsed in public submissions to the ERTF in December 2001. Only this reform step can herald the beginning of a new era in which the private sector and community at large will contribute to the optimal capacity to renewable energy development in WA* • *Reform will be critical for WA taking a step towards achieving a sustainable energy industry*

Institution of Engineers, Australia 200206827	• Energy efficiency incentives have been important but on a small scale • Government needs to trial alternative energy sources to determine if these power sources can be used on a wider scale	• Further research into biomass, wave power and fuel cell technology to determine if viable for state (work with sustainable development bodies in other states, such as SEDA in NSW and SEA in Victoria which is trialling the use of canola oil as a cleaner fuel for buses))
Dr Robin IW Collin 200205458	• A few resources are still seen as essentially limited in terms of immediate replenishment, including solar, tidal, hydro-electric and windpower. • Harnessing these resources is limited by infrastructure costs and geographical considerations	
Clint Garrett 200205462	• Energy is fundamental to our society. If our ancient bank account of energy is spent quickly, there will be little of value left for our children. • The sun produces more than enough energy to meet humanity's needs, and requires no inputs from humanity and creates no pollution on earth. We should make major efforts into harnessing this power either directly through collecting solar energy or indirectly through harnessing the wind as has been done at Esperance and Albany. Greenhouse gas reductions is an added benefit.	

Energy Visions. Renewable Energy Resourcing. 200207136	• *Renewable energy in the form of wind energy suits the Government's current style of infrastructure planning. Relatively small and low cost capacity can be added as frequently as required.* • *This greatly reduces the need for 20 year long-term infrastructure up front costs freeing capital for use in more areas where there is also need.*	1. *Create a level playing field for private renewable energy generators compared to the State's own generator, Western Power Corporation.* 2. *Remove legislative barriers: the Electricity Corporations Act 1994 requires Western Power Corporation to implement the access regime. This is an unworkable mechanism in fostering the implementation of renewable energy generation.* 3. *Disaggregate Western Power Corporation at least to the extent that the networks division is entirely independent of the vested interests of the generation and retail divisions.* 4. *Allow that private generators can fully operate under the National Green Power Accreditation Program addressing customer choice.* 5. *Remove 10 MW project cap and 35 MW aggregate market cap (renewable energies are limited at around 1% of the existing fossil fuel-fired power station capacity) in order to stimulate renewable energy generation for the private sector allowing utilisation of economies of scale.* 6. *Address at the very least the Federal Government's 2% Mandatory Renewable Energy Target (2% MRET) requiring additional 250 MW of new renewable energy generation be implemented in Western Australia by the year 2010:* *WA's industry needs to be assured that this renewable energy capacity is actually built in Western Australia. Especially regional areas of Western Australia such as the Mid West where wind farms are most likely to be implemented would benefit from such measure.* *Otherwise renewable energy generation will be built over east and credit sold to Western Australian liable parties through Renewable Energy Certificates (RECs). All employment benefits associated with the development of renewable energy generation would be lost to eastern states' projects.* 7. *Create incentives for renewable energy projects along the level of assistance the fossil fuel industry receives through eg. State Agreement Acts.* 8. *Create a simple access regime removing cross-subsidies in network access charges:* *The access regime sends the wrong price signals. The*

BioEnergy Australia 200207138	See ***Agriculture*** section for BioEnergy's Sustainable Project.	
BP 200206484		• Government can use its own energy procurement process and policy influence to ensure it is backing sustainable energy. Sustainable and renewable energy investments are being under utilised and are important opportunities. • In recent submission to COAG Energy Review, BP called for an increase in Mandated Renewable Energy target (MRET) under the Renewable Energy (Electricity) Act 2001 to 10% by 2010. Solar Photvoltaics has potential for multiple benefits. BP urges Government to join the call for an increased MRET to ensure renewable energy is supported and existing support packages are tailored to ensure the widest penetration of renewable energies in WA. • Move towards sustainable cities: use of integrated PV systems in buildings and use of cleaner fuels (these fuels have societal benefits in the form of cleaner air, and benefits for the driver such as efficiency, reduced maintenance) • BP supports the Hydrogen Fuel cell bus trials in 2004 and urges government to support wider market penetration of cleaner fuels.

Lisa Clarke 200204546		• *We as a nation could lead the way to a sustainable future by finding out (through research & technology) how to tap into our most attainable, powerful asset - the Sun.*

Cesira Leigh & Glen Ryan 200206726		*Renewables:* • *Development of a leading edge, world-class renewable energy industry. This would need to be supported by a revised mandated renewables target.* • *There would need to be increased funding support for research and development into renewables particularly for small or independent innovators rather than only large corporations to encourage innovation at the local level.* • *Develop a renewable energy market pool, by allowing independent renewable generators to sell into a market pool at prescribed prices. All fossil fuel generators will be required to purchase their portion of the renewable pool based on their net megawatt hours generated.* *Energy Efficiency (Consumer Focus):* • *All companies that turnover $1,000,000 per annum should be required to undertake biannual energy audits by an approved auditor.* • *All local councils should facilitate the implementation of voluntary home energy audit checks within their local communities via schools and community organizations.* • *The Greenhouse Challenge and The Cities for Climate Protection programme are two examples of best practice in greenhouse mitigating programmes and should be utilised throughout state and national government as well as made compulsory in businesses that turnover in excess of $1,000,000 per annum. This would encourage each of these groups to understand their baseline energy use and implement targets to reduce overall greenhouse emissions.* • *There should be consideration of increased electricity costs for industries and householders parallel with the rise of greenhouse emissions in the state* • *Implementation of a tax or increased costs placed on high greenhouse emitting vehicles like 4WDs and large volume engines i.e. V8s.* • *Increased costs for industries and consumers that use packaged goods and refunds/reimbursements for industries and consumers who purchase green products. This could involve placing a cost on household waste (eg SA recycling deposit scheme on bottles etc).* • *Best practice recycling facilities should be implemented in all councils.* • *Federal, State and Local Governments adopt minimum energy efficient design codes/guides for all new houses and renovations,*

Peel Preservation Group 200205797		• *Immediate commencement to phase out and positively discourage the use of fossil fuels, the main source of harmful emissions.* • *Provide incentives for their replacement with alternative energy sources.*
Tad Zalewski & Associates 200206631		• *Electricity: House-holds and industry to generate electricity via PV panel mounted on rooftops. Reduce the need for power stations.*

Chloe Weiter 200206633		• *In the absence of price signals that send a message to consumers about the value of the electricity being consumed energy efficiency and renewable energy need to be promoted through regulations and codes.* • *The use of renewable energy should be addressed through the electricity reform process that is currently being considered by the State Government.* • *Appropriate codes and regulations are required to ensure that renewable energy generators can fairly compete in a market dominated by large fossil fuel generators.* • *Furthermore, any proposal for new generating capacity should be assessed on its greenhouse gas emission impacts as well as financial, project management and economic criteria.* • *It is recognised that the long-term take-or-pay contracts that Western Power has with coal and gas suppliers provide a perverse incentive to use more electricity.* • *While this may be economically prudent at the present time it leads to greater consumption, increased need for new generating capacity and further take-or-pay agreements.* • *The State Government, as the owner of Western Power, should put a stop to this unacceptable situation and accept that there may be some stranded costs associated with attaining a more sustainable electricity industry.* • *A ban on Western Power advertising air conditioners would be a start.* • *Politically it seems that the uniform tariff is here to stay. However it is a major barrier to greater energy efficiency and the increased use of renewable energy in the electricity sector particularly in regional areas where they are most likely to be cost effective.* • *A more socially just and sustainable system would retain the uniform tariff for all households for their first block of electricity used, and then the price would increase* (see submission for details).
Kath Mathwin 200206626		• *We have tides, wind and sun in abundance for power, solar and stored energy in plantations can all be developed* • *To develop a leading energy centre in this state we need to employ the leading scientists (this applies to sustainability too)*

Judy Blyth 200206516		• *Energy policy is pivotal to sustainability. The various wind farms around WA, including the latest at Albany, are great examples of use of 'renewables' - and if applied on a large enough scale, could wean our society off dependence on coal-generated electrical power. The application of solar power is just in its infancy here.* • *An effective SSS would ensure that such technologies - and other energy efficiencies - were encouraged by government subsidies. All new buildings should be designed to maximise passive energy. When possible, all existing buildings should be modified to decrease dependence on mains electricity, gas or coal heating etc.* • *CALM's oil mallee project may provide a resource for producing electricity, (among other good outcomes like reducing salinity in the wheatbelt.)* • *While the SSS is addressing the role of government in all this, it is certainly for every individual person to become more committed to reducing his/her consumption of electricity, water, land . . . We all have a part to play if we are going to have less impact on the environment.*

The Environmental Alliance 200206616	• *With energy generation and use being the major contributors to greenhouse gas emissions, and WA's high per capita energy related emissions, it is imperative we promote a culture of energy conservation and that we have a rapid increase in energy efficiency in supply and use as well as in the proportion of electricity generated from renewable sources (for information on consumption patterns, see the Australian Bureau of Statistics Energy and Greenhouse Gas Emissions Accounts, Australia, 1992-93 to 1997-98, Cat. No. 4604.0 May 2001).* • *Tools necessary to achieve these changes include pricing, direct funding, tax changes, regulation, institutional change, planning, demand management, new technologies, education and the provision of information. These need to be delivered as a whole package rather than implementing some components in isolation because they reinforce one another and will deliver a greater benefit than merely the sum of the component parts.* • *International experience has shown that renewable energy is a growth industry in terms of jobs and exports. Work by The Australia Institute shows that jobs in renewable energy are regional jobs, and have the potential to provide a much needed revival in rural areas (see attached paper 'Why Cutting Greenhouse gases will be good for regional jobs' November 2001). Putting the focus on promotion and facilitation of sustainable energy can help to achieve other core government goals.*	• *Government should review regulatory and revenue frameworks so the goals of water and energy service providers are aligned with the goals of increasing water and energy efficiency and minimising per capita consumption.* • *Government should mandate energy and water ratings for all homes.* • *Local Government should implement water ratings and water efficiency standards for all new and renovated buildings as mandated by the State Government.* • *Industry should be demonstrating leadership in moving towards sustainability, e.g. through new home design and an education campaign within their association and the broader industry sector.* • *The development of a state transport policy must be a priority in order to make the transition to a more energy efficient, less carbon-intensive transport and production system.* • *The costs and benefits of the various alternative fuels should be assessed on a lifecycle basis and incorporated in government energy and transport policy.* • *Government must adopt a strategy to reduce our oil dependence, addressing issues such as travel demand, energy efficient travel options and better managing land use.* • *Sustainability issues must be considered in pricing policies. The external costs of power generation and use should be taken into consideration by retailers, especially for regional areas.* • *Government should build in the concept of 'negawatts' into any future power procurement processes. The installation of technologies that will reduce energy use should be a required component of future power procurement tenders.* • *Government must stop active campaigns to encourage energy use by Western Power or by other energy generators and develop a comprehensive public education campaign involving advice, displays and information about energy efficiency and renewable energy.* • *Government should urgently introduce incentives and mechanisms to encourage energy efficiency and conservation in at all levels of production and consumption in industry, commercial and community sectors.* • *Government should set State targets for the amount of WA's energy to be generated from renewable sources within Western Australia such as wind, solar, biomass, tidal (but not tidal dams) and geothermal sources. There should also be targets within each renewable source to foster competition within, rather than*

National Trust of Australia (WA) 200206518	• Heritage is a central platform for sustainability. • See submission for case studies: Bushland Covenanting Program, Bush Bank, Golden Pipeline Country (industrial heritage of the Goldfields and the Agricultural Areas Water Supply Scheme) and Greenough Hamlet	• *Introduction of initiatives to encourage increased participation in heritage management research and development activity, especially research related to the value of heritage and heritage tourism to Western Australia and the economic impact of heritage rehabilitation.* • *That the Curriculum Council of Western Australia evaluate the knowledge impact of incorporating the study of history and heritage values into the existing society and environment and other curriculum frameworks.* • *That the Curriculum Council of Western Australia ensure that the learning outcomes for society and environment include a component related to the value of heritage as both a social good and as an economic driver.* • *That new initiatives to encourage greater participation in history and heritage management at a tertiary education level be introduced.* • *That the State Government consider the establishment of a centralised State Government Department of Heritage Resources[1] that could coordinate the management of public sector owned heritage assets and provide the nucleus for an associated Centre of Cooperative Research.* • *That Commonwealth/State Governments consider the establishment of a Centre of Cooperative Research or an ARC Linkage Centre of Excellence, focused on Heritage Management and Development, to be located in Western Australia.* 1. *That the State government consider State based incentives and advocate to the Federal government the need to consider options and <u>adopt incentives</u> that help to address the issues of the:* *1.1. Low philanthropic activity in Australia in comparison to other developed nations (e.g. USA 89% to Australia 40%), given the opportunities available from the aging of Australia's population (an age group that currently represent a high proportion of the donor population) and the likelihood of reduced government appropriations in the future.* *1.2. Community's lack of awareness of the economic value of heritage (especially that of historic rehabilitation). This might include providing owners of built heritage additional*

[1] As an example, in the State of Virginia USA the Department of Historical Resources is charged with the responsibility for managing and putting that State's historical assets to work.

Donna Elliott 200206826	Economic benefits of this proposal for Heathcote: • *Massive saving on state/federal health costs due to a healthier / happier population (see social benefits)* • *Establishment of Friends of Heathcote Association made up of members from all Cross sections of society to contribute to success of gardens* • *Productive garden of aboriginal foods* • *Productive garden of vegetable garden / fruit orchard* • *Produce to supply local concerns – restaurants etc* • *Enhancement of tourism for Perth WA.* Social benefits: • *A place where cultural significance (indigenous and white Australian) is recognised, respected and retained* • *A place for relaxation, peace and tranquillity for all to access.* • *A place where community and families can share quality time (as evidenced on top area of Heathcote)* • *A place for the arts to be enjoyed – music, singing etc* • *A place for physical activity – games, sport, dance, walking, yoga etc* • *A place of learning – org./perm. Gardening, astronomy, sustainable technologies* • *A place for people to access organically grown produce* • *A place where community members can contribute skills and experience, especially senior citizens and youth* • *A place for all* Environmental benefits: • *Permaculture/organic farming allows us to take what we need from the land whilst nurturing the land (sustainable agriculture)* • *Reclaiming wetlands including flora and fauna* • *Contribution to restoring quality of Swan River system* • *Promoting growth of native vegetation* • *Nurturing land, water and air contributes to the sustainability of the wider environment – WA.*	• *I believe the whole lower land of the Heathcote site in Applecross needs to be gardens, parks, recreation areas, wetlands and natural springs where our aboriginal, European and Australian (multicultural) heritage is celebrated in a sustainable way.* *I.e.* 1. *Re-creation of gardens – native vegetation, fruit/nut orchard, vegetable garden (Australian and indigenous varieties) ornamental garden, all based on organic/permaculture principles.* 2. *Restoration of wetlands and native flora and fauna* 3. *An aboriginal focus* 4. *Community amphitheatre / solar passive shelter (cultural / education area)* 5. *Public toilets* 6. *Car park* 7. *Open public space* 8. *Natural springs* • *Based on organic/permaculture principles "The Lost Gardens of Heathcote" will be sustainable for all Western Australian (present and future) to enjoy.* • *I am mindful of the importance of thorough and professional planning and implementation of such unique and significant, ambitious project such as I have outlined. Of course you will require a detailed, professional proposal which I am happy to forward on request.* • See submission for attachments: permaculture, Conservation Plan for Heathcote Hospital Complex, National Trust Heathcote Co-ordinated Assessment.

Community Arts Network WA (CAN WA) 200204773		• See ***Arts and Sustainability*** section for Community Arts Network WA (CAN WA) submission.

Building Sustainably

Dr Gary Luck *200202587*	• Have stricter environmental controls on housing developments	
K.D. Walsh 200204451	• Examples of best practice include solar powered reticulation and solar heating	• Mandatory inclusion of rainwater collection and storage tanks into Building Regulation' standard minimum requirements
Brian Bucktin 200204123	• Solar heating incentives, the Commonwealth 'Sustainabvle Housing' incentive (though unless mandatory sustainable housing design legislation is introduced, the industry will be tardy in the application of the principles), and the Liveable Neighbourhoods are all steps in the right direction	• Planning approvals must be subject to passive design incorporation (site orientation and construction) • Incentives need to be made available for retrofitting of existing buildings to incorporate elements of design passivity
Stuart Hawkins 200204122	• Domestic wood heating has been poorly addressed by the Perth Air Quality Management Plan, focussing on efficiency rather than changing the fuel source • *Each house that is currently built without meeting such criteria, (leaves) a long-term legacy of debt to society as a result of being comparatively unsustainable*	• Wood heaters should be phased out through a legislative process that would prevent the installation of new wood combustion heaters. All new houses should be fitted with gas, electric or reverse cycle airconditioning (more efficiency and less polluting). Houses still using wood heaters should continue to do so until the supply of wood runs out and then can be replaced by one of the heating alternatives. • Mandatory sustainability design criteria on new housing, before building approval. Examples include: 1. Solar orientation 2. Water delivery devices to meet water-saving criteria 3. Roof Insulation to be compulsory 4. Efficient and low polluting domestic heating
M.J. Norman 200204690		• 20% tax rebate on a maximum of $1000 per year spent on approved energy conservation rating appliances. The subsidy should only apply to designs that are 90% recyclable at the end of their product lifetime

Men of Trees 200204767		• Provide energy conservation incentives for all new housing including: 1. Insulation 2. Solar hot water systems 3. Passive solar design principles 4. Photo voltaic cells to provide power for home and grid 5. Extensive use of high intensity fluoro lighting units • Provide incentives for retrofitting older houses as above • Develop standard building regulations for homes, shops, offices and factories that accommodate the above incentives
Gerrard Mullen 200204664	• Greater application of the use of recycled and renewable building materials, composting household waste and weather sensitive architectural design would greatly reduce the impact of development • Barriers to achieving these commonly known measures of sustainable practices include cost, lack of choice in the marketplace, limited desire to accept new sustainable technologies etc • Increased subsidies for sustainable housing construction would increase adoption of these practices	• There is a role for business, community and government in facilitating these changes • Business could help accommodate sustainable features in design and construction of buildings. Once major builders create blueprints for sustainable buildings others will follow suit. This should be in combination with promotion from government and marketing by business sector to encourage community to embrace sustainable practices • A sustainability grant like the First Home Owners grant could be applied to all developments to make sustainable options more desirable than currently used options
Shirley de la Hunty 200204691	• The influence of powerful small groups and wealthy institutions who control the elected to a large degree result in the Town Planning Schemes and attendant policies having little effect • 20% of total Australian greenhouse emissions come from housing. If the community sees a way of helping reduce global warming, they generally feel altruistic enough to influence the way it is locally achieved. This in turn influences Local Government.	

Ruth Balding 200205374	• *There appear to be only barriers to using sustainable building materials* • *WA is so heavily promoted and identified as being a resource rich state that this extends to our attitudes towards what building materials to use*	• Incentives must be put in place for building commercial and domestic buildings along sustainable lines e.g. the Government rebate on installing solar hot water services • Establish proper guidelines for local government that encourage a sustainable approach to building and other resource use alternatives • Guidelines need to be developed and adopted for incorporation of passive solar design and orientation and energy efficient principles as a standard in the building of every home • A strategy could be developed to encourage people to design more functional, smaller homes that don't consume so many resources • Set targets that for people who buy land that a certain percentage is left for original native plants
Christine Heal 200205705	• *Housing demands have gone up as families and relationships have fragmented. People appear to have more problems with relationships and cannot or will not share facilities. These are factors in our impact on the environment.*	
Clint Garrett 200205462	• There is almost a complete lack of environmental consciousness shown by those responsible for design, approval and construction of houses eg houses being built with black Colorbond or black-tiled roofs, houses with no sun protection for windows. These buildings violate the most basic of design rules. • A badly designed house is a long-term energy issue, as it will continue to use excessive amounts of energy long after its original occupants move on. • SA recently introduced 3.5 Star energy rating as minimum standard, but this is now seen by Master Builder's Association and by Planning SA as being too low. • Government is commended in its willingness to tackle sustainable building regulations on a whole of state level rather than leaving it to local councils.	• WA urgently needs to mandate at least Five Star energy efficiency for all new construction and for extensions over a particular value. This will give builders/individuals flexibility of design/methods as well as energy standards.

Penny Chadwick 200206505	• Since a major part of our lives is spent in buildings, it makes sense in a sustainability strategy to use our knowledge to build them in an energy efficient way, providing greater comfort, health and economy, as well as beauty, utility etc, the one following form the other • At present people feel it is their right or necessity to have most of their windows facing a certain way, perhaps for a view or street position, even if it makes their house, office building or warehouse excruciatingly hot in summer and cold in winter, needing huge amounts of energy in heating, cooling and lighting	• Passive energy efficient design is no more expensive than any other, relying on correct orientation, positioning of windows, solid floors etc • Buildings are more healthy and have huge energy and expense savings with mostly natural ventilation, heating and cooling • They are more comfortable because they obviate extremes of heat and cold and have better natural lighting • Wool insulation could be used more widely, is non-polluting and locally grown • Architects can design energy efficient buildings to blend with the surroundings, and use creative and innovative ideas • Alter building codes so that all building is required to be done to at least passive energy standards • People accept rules of current building code therefore they would come to accept and appreciate the need for energy efficiency rules as a plus for them, especially if explained well and advertised • Concrete action is needed to bring about change • Unemployed people in Aboriginal and other communities could be trained (if they wished) to develop similar housing ventures to the one in Geraldton and be contracted for housing their own communities

Housing Industry Association Ltd 200206504	• HIA's members construct 85%-90% of housing in the state, most by small to medium sized businesses that rely on HIA for information and training. *Given this, HIA has a significant role in promoting the uptake of sustainability in the residential sector.* • GreenSmart has been a successful program for environmental performance in the housing sector, reducing construction and demolition waste, and water and energy consumption from non-renewable resources, and passing on this information and educating the community to do likewise. It involves demonstration through GreenSmart villages • Housing sector is an important part of economy and social wellbeing • Lack of streamlined regulatory framework for housing sector creates inefficiencies and higher housing costs • New role for housing: no longer just a shelter but where 30% of small businesses operate their businesses, where families are learning and studying online – generating a flow of economic services See submission for best practice examples	• HIA urges government to partner with industry in the implementation of its policies: HIA's GreenSmart (implementation phase of HIA's environmental strategy PATHE); Housing Australians; and Better Living Environments. • Assist in expanding GreenSmart through sponsorship and a more flexible Liveable Neighbourhoods subdivsion trial • Need to develop greener residential estates • Government and its agencies to join GreenSmart program. Key agencies include SEDO, WRC, DEP, DPI and utility providers • Need environmental improvements to residential subdivision design, so that they are sustainable – HIA has developed a GreenSmart Checklist for subdivision design that should be adopted by government –establish benchmarks and mainstream environmental subdivision design • It is difficult to mainstream GreenSmart housing unless there is corresponding improvement in the manner residential subdivisions are undertaken • Liveable Neighbourhoods should be reviewed as matter of priority to increase its adoption, relevance and environmental aspects along the lines of HIA's GreenSmart program. *The review would seek incorporation of defined desired environmental outcomes, performance indicators and measures*. An integrated approach to residential development (developed through engagement with industry and community)should be the outcome. • HIA seeks State Government recognition and endorsement of GreenSmart, and assistance with its implementation • Must encourage better practices and bring participants along with it • Government agencies must cut red tape and make reforms to facilitate take up of sustainable housing and deliver a more predictable, consistent, affordable and flexible system for housing • *The need to reach a common understanding on what constitutes sustainability* – a shared view which can be put into practice to achieve a groundswell of support by industry, community and government • *Urgent reform of planning, environmental and building regulations and policies and taxation reform is required so that Western Australians are housed affordably, sustainably and equitably* • *Improve environmental performance through commitment by all parties (grass root level)* *A paradigm shift to partnering:* • *partnering between industry, government and community*

Frank Hawkes 200206501	•	• photovoltaic rebate be linked to first homeowner's scheme – the $10,000 first homeowner's grant and the $7,500 rebate together would look very attractive ($17,000) and not cost the Government any more Other advantages would be: • promoting use of photovoltaic systems which save on energy transmission and capitalisation costs • coupled with Smartpower, this would give lower electricity bills for 20 or more years • promotion of local industry, manufacturing and installation • a powerful argument to put before Kyoto-type meetings • in the context of the house the panels seem less expensive • solar hot water systems be condition of full eligibility for first homeowner's scheme (a nominal $2000 cost of a system being deducted if not taken up) Advantages: • promoting the use of solar heaters and energy cost efficiency • coupled with Smartpower, saving electricity during the day and using cheaper rates at night would lower electricity bills • promotion of local industry, manufacturing and installation • a powerful argument to put before Kyoto-type meetings • no additional cost for government • in context of house, solar heater seems less expensive

Master Plumbers Association of Western Australia & PPTC Skills Vocational Educational and Training Centre 200206720	• *Improvements in water and energy efficiency will cost significantly less than meeting future demands with new infrastructure and offer benefits for both regional and urban areas.* • *Current research on achieving lasting behaviour change within communities indicates that person-to-person "social marketing" is the most effective in terms of results and program costs.* • Water access and management is a more pressing issue than the greenhouse effect • Fact that domestic water heaters account for 15% of household greenhouse gases and involve plumbers represents a major consumer behaviour change opportunity • WA is ideally placed to benefit from developing water efficient technology and from the international demand for hard technology (products and materials) and soft technology (expertise) – the market for solutions and expertise in water and energy use is staggering, and WA is ideally placed with the biggest demand in Asia • WA would also be advantaged if our tourism sector had the highest standards of water and energy efficiency in the world (ie eco-tourism) • *Environmental management technology will be a key growth area for future employment* • See submission for key statistics and beneficial outcomes from sustainability	• Include a partnership program with the plumbing industry led by MPA and PPTC skills who have reputations for innovation and leadership • Potential for such a program includes: 1. Establishment of a Water and Energy Efficiency Centre to facilitate ongoing education of industry and the public (one-stop-shop – not as replacement for Murdoch centre) 2. Development of new educational resources (training packs and modules) for pre and post vocational training 3. Furthering of Australia's leading expertise 4. Development of incentives for ongoing training in water and energy efficiency 5. Close collaboration on all government initiatives involving water and energy use (eg solar heater rebate schemes and public education programs) • Enable grey-water use through legislation and implementation. Currently 43% of scheme water is used on gardens – this could be a significant saving of water. • Re-train plumbers to educate customers - Plumbers are the main point of contact for the community on water and gas products and so are perfect vendors for awareness raising (research shows person-to-person advice is most effective) – valuable investment in WA's social capital

Institution of Engineers, Australia 200206827	•	• establish a comprehensive program to ensure building developments are not excessive users of energy and resources, involving mandatory minimum energy design standards and establishment of a regime for energy and greenhouse performance auditing and reporting • government could lead by example establishing environmental design standards for all government buildings (including local councils) • encourage the use of triple bottom line reporting in life cycle of building development (see report attached to submission, 'Sustainable Energy Innovation in the Commercial Buildings Sector. The Challenge of a New Energy Culture' for recommendations for sustainable building).
Quinns Rocks Environmental Group 200206967		• *Promote and provide incentives for use of water and energy efficient design and technologies in new urban development. Building codes should require greater energy efficiency in houses and commercial and civic buildings. Use of solar hot water systems should be supported, put some incentive to overcome the high upfront cost is needed. Water efficient appliances, appropriate greywater recycling, home water harvesting and waterwise gardens should be promoted. Display homes in the local area could be used to demonstrate these ideas.*
Notre Dame - Edmund Rice Centre 200206397		• *New housing developments could be developed to allow for sustainable living. E.g.: preserving areas of native vegetation, subsidizing houses with a solar passive design*
Andrew Thomson 200206383	• *While walking the streets in new suburbs, we see a predominance of large houses with black or dark coloured tiles on rooves, no eaves and very few houses with solar design features.* • *And when houses are being built there is always a large pile of surplus bricks and timber which go to the rubbish dump.*	
Kath Mathwin 200206626		• *Government could legislate for houses and other buildings to all be built along environmentally friendly lines, understood now by many architects and builders*

Rosa de Graaf 200206617		*Governments should take responsibility for and make future laws pertaining to energy-efficient design buildings, i.e:* • *houses etc facing north;* • *rainwater tanks at homes and buildings to supply at least clean drinking water (OUR WATER CODES LEAVE A LOT TO BE DESIRED!);* • *Solar hot water and heating systems installed and;* • *bio toilets.* • *Encourage planting of -suitable to there area- native trees in their gardens encouraging local bees, birds, butterflies, etc to their areas.*
M.J. Norman 200204690		• Legislate for a 25% Council rate reduction, phased in over 5 years, for all houses that meet certain passive solar design criteria. This would save on the cost of energy (with associated environmental benefits) while promoting sensible and innovative design • Tie first homebuyers grant to housing design that meets certain thermal efficiency criteria

Urban Bushland in Urban Planning AND Community Natural Resource Management

Quinns Rocks Environmental Group 200206967		• *Reserve bushland north of Burns Beach Road to retain significant bushland and landscapes for conservation and provide a large open space break in the North West Corridor (development proposal affecting this area are presently before the Environment Minister).* • *Review road and infrastructure proposals and management issues affecting Neerabup National Park and act to expand and protect the park to provide a larger, intact conservation reserve linking with other bushland remnants.* • *Work with the City of Wanneroo, landowners and local community to develop a Greening Plan for the area. This should identify remnant vegetation and ways it can be retained, managed and linked together including regional and local conservation reserves, bushland on public and private land, local plants in home gardens and street scaping and re-establishing habitat corridors.*

		• *Provide effective support for local community initiatives to promote sustainability. There are many social and environmental issues that would benefit from greater community involvement, and this involvement could give meaning to sustainability. As an urban fringe location this would be a useful demonstration site for sustainability projects; a local community facilitator could be employed to help make them happen.*
J.E. Wajon 200206629	• *In this area, it is also time that the many arms of government pulled together rather than apart, which seems to be happening with so many developments. Many government departments and policies seem to working at cross-purposes. For example, we are rapidly destroying our best Banksia woodland for housing, yet many already degraded areas, particularly unproductive near-urban farmland, remain undeveloped.* • *There is too much cleared or partly cleared degraded land in urban and outer urban areas that is not used for any productive purpose, including housing. Many rural properties also appear degraded and very unproductive. There is a need to use these areas first for any in-fill and new housing.* • *A condition should therefore be placed on privately owned property in urban or urban-deferred developmental zones, which is either partly or fully cleared or contains bushland in poor condition and does not contain any threatened or significant flora, that cause should be shown every five years why it should not be developed by the owner for housing. This is to make previously cleared land available for housing prior to any new land being cleared in areas where there is already "unproductively" used land.*	• *Local Councils and the WA Planning Commission should more closely scrutinise development applications, including for houses, roads and other infrastructure, to ensure that the best use is made of available land. A process should be established so that all applications to clear bushland are advertised, assessed and approved by a statutory body, in a manner similar to, but more thorough than, that being used to gain approval for rural land clearing. Clearing urban bushland should require development approval under town planning schemes and the MRS. There should be a right of third party appeal against the grant of approval to clear bushland.* • *the creation of waste land through un-necessary clearing should be eliminated;* • *un-necessarily wide verges and setbacks should be eliminated;* • *triangular lots of land that can not be utilised productively should be eliminated;* • *development should be consolidated to minimise the need for clearing;* • *cleared land, degraded bushland in poor condition or relatively unproductive farmland should be used first before any bushland in good to excellent condition is cleared for intensive development;* • *all matters affecting or likely to affect the environment as a consequence of clearing and development should be considered before an application is approved;* • *developers should not be allowed to undertake wholescale clearing of land for urban development, only to replace a proportion of the cleared land with planted exotic, or even native, vegetation. The local ecosystem is much more interesting and viable;* • *the WA Planning Commission or other statutory body should be*

		able to impose and enforce binding conditions, such as clearing restrictions, fencing requirements and the provision of bush corridors, as part of the condition of subdivision approval. • *A levy should also be introduced on any bushland that is to be cleared. This levy should be on a sliding scale, with the levy increasing as the bushland condition increases. This levy should be used to purchase and reserve bushland in good condition, especially those areas recommended in Bush Forever. On the other hand, local councils should offer rate relief if bushland in good or excellent condition is reserved by the owner for conservation purposes. State Government should also offer financial assistance to Local Councils.* • *A penalty of environmental degradation should also be introduced to ensure developers and owners do not destroy, or allow the destruction/degradation of, vegetation un-necessarily.*
Lisa Clarke 200204546	• *We take it for granted that the trees, forests and bushland that we continue to destroy are the same resources that give us precious oxygen.* • *Not only does the bush bring us much needed visual relief & a sense of freedom - it also contains a multitude of biodiversity which depends on this bushland for its' habitat.*	• *We must learn to value our bushland and find other ways of utilising this unique asset.* • *Tourism (especially passive recreation) will play a major roll in the battle for sustainability. Perhaps people will come to Australia to learn how to become more sustainable.* • *My government would be wise to realize the value of our regionally significant & locally significant bushland now, before it's too late. Protect our land from further degradation.*
Phillip Sharp 200206388	• *When a treelopper chops down a tree, all the leaves and branches up to a certain diameter, are chipped into mulch. This leaves the main trunk and any large branches which are then disposed of at a landfill site, attracting a large dumping fee.* • *This is because there is no commonly known use. If more people were aware of a use for treelopping waste, more people would be willing to support these uses.* • *I (1 person) have been able to process 100 truckloads of treelopping waste form only 1 treelopper. These are perfectly good logs of varying species of timber. They come from trees grown in our city streets, parks, schools and homes.* • *I mill these good logs into useable timber, using cutting edge technology in the form of a horizontal*	• Green waste from treelopping should not go to landfill as it has many uses and should be utilised and not wasted. *Here are some of the main reasons why we should recycle treelopping waste:* • *Directly reduces the amount of waste going into landfills.* • *Creates employment* • *EcoEfficient, Resources Renewable, Sustainable Energy.* • *Creates Alternative Energy Source. Eg. Firewood* • *Recycles Waste and Value Adds* • *Manufacturing from Value Added timber = more value adding* • *Someone has to build it! Which creates more employment* • *Finished product creates environmental awareness eg. Displays.* • *Creates an income, cash flow, financial incentive* • *Environmental Awareness = opportunity for public input, through sales.*

	cutting edge technology in the form of a horizontal bandsaw. • *All the offcuts and everything else not suitable for milling, is processed into firewood which I sell to the public.* • *All the bark and sawdust is scraped into a pile and composted into beautiful soil which I use on my own gardens. This composting is achieved through organic means using worms, aeration and time.* • *All waste products from each process can be re-recycled into the next process.* • *By processing this waste into firewood, it instantly changes form waste to a useable product. It becomes an alternative energy source. Heat. This energy source gets wasted everyday whilst we still cut down our native forests for firewood.* • *By processing this waste into useable timber. I am value adding to the highest degree. I am able to manufacture products out of this timber* • *I am now hoping for financial assistance or recognition for my efforts which will assist future generations.*	• *Awareness means the public and people in power eg Councils, Landscape Architects etc can participate by planting the correct "Timber tree".* • *Urban tree planting can be a way that everyone can contribute to combating Salinity problems which can be caused, and consequences felt, due to the overuse of bores, within urban areas.* • *By planting a tree, Natures natural filters, people can choose to contribute to an EcoEfficient, Sustainable, Environmentally aware, Waste Minimisation project.* • *By planting the correct tree, a supply of timber can be obtained. The opportunity exists to plant endangered species eg Red Tingle and Karri, outside of their natural habitat.* • *A revegetation project could become a timber plantation, applicable to: mine site rehabilitation, land rehabilitation, Landcare, streets, parks, schools and homes.* • *This project offers many opportunities including; waste minimisation, cleaner production, increased employment, increased environmental awareness, financial incentives, greenhouse gas reduction due to tree planting, carbon storage facilities, woodwork, carbon credits, reduced salinity due to tree planting, manufacturing capabilities, training potential, multitudes of products including; firewood, timber, charcoal, activated carbon and any other Native Forest Product eg posts and poles.*
The Environmental Alliance 200206616		• *The conservation of urban bushland should have greater priority in planning decisions.* • *Urban and regional development should always be planned around sustainability-related considerations, such as access to public transport and maintenance of greenbelts.*

South Coast Environment Group 200209228	*Indigenous and Community Involvement in Natural Resource Management* • *SCEG firmly believes that indigenous knowledge, and the active participation of indigenous groups in the management of natural areas is a undervalued and underutilized resource. In the interests of the dual objective of aboriginal reconciliation and improved natural resource management, SCEG believes that the incorporation of indigenous people and their knowledge in land management must be actively sought as a matter of priority.* • *Community involvement and community ownership of natural resources is also an invaluable component of the sustainable conservation of natural and cultural heritage values. Neighborhood watch programs to encourage custodianship of natural resources, as well as the encouragement of volunteer involvement, such as the Bibbulmun Track Society are useful mechanisms for increasing community involvement and ownership of natural resources.*	*Recommendations:* • *Indigenous representation must be a required part of the community consultation process of every development proposal. Effort should be made to be accommodating and sensitive to an indigenous approach to knowledge and the understanding of ecological systems.* • *Community involvement and ownership of natural and cultural resources should be actively encouraged. This can be achieved by the development and use of new and existing mechanisms for encouraging community participation.*