

SUMMARY OF PUBLIC SUBMISSIONS TO THE STATE SUSTAINABILITY STRATEGY

September 2002

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

GLOBAL CONTRIBUTIONS

Population, Development Aid and Environmental Technology

POPULATION		
Sustainable Population Australia 200201710	<ul style="list-style-type: none">• Consultation paper avoids issue of population size. Increasing population will increase size of ecological footprint (to maintain standard of living), though it is noted that the footprint needs to be halved over the next two decades	<ul style="list-style-type: none">• Need to reduce population numbers to reduce size of ecological footprint
Dr Gary Luck 200202587	<ul style="list-style-type: none">• The consultation paper's failure to include size of WA's Population as a factor that undernably affects progress towards sustainability is inexcusable• The consultation paper is fundamentally flawed for failing to address the trade-offs that exist between population size, resource consumption, standards of living and the impact on our life support systems• Ecological footprint is a factor of resource consumption and population size (and technology).• Redistribute wealth globally by reducing resource consumption and population size in Australia (may limit Australia's ability to provide aid as through-put in the economy may be limited)	<ul style="list-style-type: none">• A precautionary approach should be adopted whereby current population growth is limited as much as possible until the consequences of future• Some cost-benefit analyses of growing versus stable-declining population should be investigated• Have a well-balanced, truly representative summit on issues of population growth and resource consumption in WA

Paddy Weaver 200204121	<ul style="list-style-type: none"> Population growth is the most immediate concern facing sustainability. Any reduction in the rate of environmental degradation and also reduction in reducing per capita consumption is removed by continued population growth. 	
Stuart Hawkins 200204122		<ul style="list-style-type: none"> Benefits/costs of increasing or reducing Perth's population WA's population should be considered in the development of a population policy. This would provide direction for the management of the population. Such a policy should be linked to affluence, resource consumption and carrying capacity issues
Brian Bucktin 200204123	<ul style="list-style-type: none"> If it were possible to reduce our resource consumption by 10 fold, this reduced level of consumption would only be valid until the next population increase occurred. A further reduction of consumption would then be needed There are commercial opportunities stemming from sustainable development projects globally There is political support of limiting population growth from the premiers of NSW and Victoria (Sustainable Population Summit 2002 was hosted in Victoria) and Geoff Gallop was recently quoted as saying a national population policy was crucial to maintain Australia's population at ecologically sustainable levels. 	<ul style="list-style-type: none"> To achieve true sustainability, a two pronged approach is needed: <ol style="list-style-type: none"> We must establish what our sustainable population level is, with consideration of our current natural finite resource consumption (this will change over time as consumption fluctuates). We should use the precautionary principle when establishing this We must take whatever steps we can to ruthlessly limit/reduce our consumption <i>A great deal of steering legislation, no matter how politically unpalatable it may be, will be necessary to achieve both of the above outcomes.</i> The Sustainability Policy Unit should: <ol style="list-style-type: none"> Recommend to government the importance of establishing a sustainable population level for this state Establish a methodology to achieve this population level Recommend that government implement the required strategy to achieve this goal

K.D. Walsh 200204451	<ul style="list-style-type: none"> • Sustainability is a necessary pursuit if we hope to achieve and maintain both population and economic growth • If sustainability was taken more seriously our ability to live in Western Australia would be ensured. Our current ability to maintain population growth is in doubt due to our unsustainable use of resources, e.g. water • Further contribution to progressing sustainability could be achieved through the sharing of research at state, federal and international levels, especially with countries with no means to help themselves. 	
Michael James 200204692	<ul style="list-style-type: none"> • The primary concern in all human environmental/resource use/ecological concerns is that of human populations • Due to the unique nature of Australia's environment and the poor soils, there is a need to be 'extremely' economical and expedient in use of resources • To ensure a sustainable future, population needs to be stabilised or reduced • Economists scoff at the idea of stabilising or reducing the population as they benefit from increased consumption that a larger population will deliver 	
Jodi Ogilvie 20025061	<ul style="list-style-type: none"> • <i>With an ever increasing population in WA, a balance of environmental management and social and economic growth is essential</i> 	

<p>Maxine Dawson 200205139</p>	<ul style="list-style-type: none"> • Sustainability is a global and a local issue. We rely on trade around the world, though we also need to adequately protect our environment and control consumption of non-renewable resources at a local level 	<ul style="list-style-type: none"> • Promote and implement living in WA so the direct, indirect and cumulative impacts of living does not exceed the capacity of WA, Australia and the world to sustain us • WA representatives to work with people of all nations to: <ol style="list-style-type: none"> 1. Promote practices that cumulatively ensure the capacity of the world to sustain us is not exceeded 2. Ascertain the issues that threaten ecological sustainability and phase out or replace threatening practices with more sustainable practices. Two specific issues of concern are: <ul style="list-style-type: none"> • The impact of military weaponry on the air, water and land resources (including terrorism) • Research and development has at times occurred on a large or dangerous experimental scale. All the world's research and development needs to be within sustainability parameters • <i>We need to be active on a global scale to address the issue of wars and weapons and international security.</i> Western Australia has a role in ensuring this happens • Have participants in all world forums that indirectly or directly relate to things that may impact on global survival in the long term
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<p>Jeanette Conacher 200203853</p>	<ul style="list-style-type: none"> • International scientists believe wars/border/national/international frictions may escalate this century due to conflict over competing access to water or water quality. This scenario may also exist across state boundaries in Australia: it is a core sustainability issue for this country and WA. • Other degradation (soil erosion, desertification, biodiversity loss) are at least as important as salinity, see UNEP World Atlas of Degradation, Land and Water Audit. • Water should be on list of key data, noting high pressures on the natural resource as a consequence of extraction, pollution, salinity, hydrological modifications. • OECD indicator data show Australia is among world's highest generators of industrial and municipal waste. Add some data. • <i>The rich/poor gap is a global problem.</i> 	
<p>Dr Graham Chittleborough 200206296</p>	<ul style="list-style-type: none"> • There is a lot we can do to achieve sustainable population and consumption • Majority within our community are increasingly anxious that we should restructure our lifestyles and priorities and strive towards sustainable population • The climate of public concern is such that many will respond to well reasoned strategies • Ecological warning signs can no longer be ignored or glossed over 	<ul style="list-style-type: none"> • Educate the community on stark and urgent necessity to adopt strategies towards sustainable population and consumption

<p>Peter Wilmot 200206297</p>	<ul style="list-style-type: none"> • Absence of reference to population growth a great deficiency • Population issue is a function of both per capita consumption and the number of people • Population growth affects quality of life in that increased management is invariably required to cope with increased use of the natural environment (eg beaches, rivers, national parks). • It also creates pressures in cities for roads, urban expansion etc. • Many advocates for increased population have vested interests (eg building industry) while costs of urban congestion and resource depletion are borne by all • Population question is difficult because can degenerate into racism and xenophobia but its importance is such that it must be considered 	<ul style="list-style-type: none"> • We need to reduce per capita consumption of resources (our individual footprint) but improvements in the footprint are negated by continued population growth • Population should be an integral part of the sustainability debate - the carrying capacity of this country must be considered • Slightly higher population could be supported if consumption was reduced but we should be cautious about population growth in the absence of the need for reduced per capita consumption being understood and achieved
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<p>Frank Hawkes 200206727</p>	<ul style="list-style-type: none"> • The north of WA has adequate resources of water, and with the development of environmentally efficient tidal power, abundant energy. We first need to open up our European mindset which considers tropical living as uncomfortable, to a broader view that recognises more than half of the world population sees it as the norm • Opening up the north would solve the boat people problem in a humane long term way, allowing economic benefit for Australia without threatening southern, low income families 	<ul style="list-style-type: none"> • Promote emigration into the northern part of Australia • To prevent southern drift, conditional five year visas be provided to immigrants which allows the payment of social security only above the 20th parallel, after which they qualify for full citizenship. In the interim, anyone found south could be repatriated • This would transform problems and ease racial tensions • Population and water resource problems would be alleviated in a more sustainable way • Asylum seekers, except undesirables, would become immigrants (as in post war migration) • Development of tidal energy would soak up some of the labour excess (eg Snowy River) • Learn from SA (Elisabeth) and Ord River experience that diverse not specialised schemes work • Land grants for people with few resources to develop organic farming where soil and water allow • Family reunions be encouraged north, away from cities which are expensive to live in • Where possible support local industry rather than importation from the south • Foster existing migrant initiatives and talents in people not used to welfare • Develop security in north
<p>Bryce Bunny 200206824</p>	<ul style="list-style-type: none"> • 	<ul style="list-style-type: none"> • the strategy should recognise considerable pressures that many developing nations are coping with in regards to population, the environment and development • we should be accepting more people from marginalised countries with the objective of maintaining and stimulating economic growth, channelled into greater efficiencies and reduced consumption • additional population growth in Perth should be focussed towards stimulating development in key regional centres

<p>Sustainable Population Australia (WA) 200207135</p>	<ul style="list-style-type: none"> • <i>Most wealthy nations have low and / or stable populations</i> • <i>Biologists have estimated in dollar terms the value of the natural ecosystems that maintain the quality of our water, air, land and seas. The figure of \$33 trillion (US) exceeded the total global GDP at that time (Senator Robert Hill).</i> • <i>Contrary to popular belief, Australia's population is very definitely NOT declining. Our total fertility rate (1.7 children per woman) is below replacement rate (2.1) but because we have a young population with many below reproductive age and since life expectancy is still increasing, births exceed deaths by around 120,000 per year. With this natural increase in population and around 110,000 annual gain from immigration we added 229,500 to our population in the year to June 2001 (ABS 3101.0, December 2001). Our population, now over 19 million is expected to reach 24.1 million by 2050 at existing migration rates.</i> • <i>Australia's population growth rate of 1.2 per cent is one of the highest of developed (OECD) countries, with annual natural increase (120,000 to June 2001) being slightly greater than net overseas migration (immigration minus emigration - 109,700 to June 2001) (Australian Bureau of Statistics).</i> 	<p><i>Recommend:</i></p> <ul style="list-style-type: none"> • <i>that the following definition for sustainability be adopted by the Government of Western Australia. Sustainability: Quality lifestyle that meets the needs of today without compromising the needs of future generations or the ecological processes on which life depends.</i> • <i>that in developing a sustainability strategy for Western Australia obligations to global as well as local needs be recognized</i> • <i>Adherence to the sustainability principles of Daly should be adopted as the basis of the strategy (Daly, Herman E & Townsend, Kenneth N., "Valuing the Earth: Economics, Ecology, Ethics.", MIT Press 1993.). These are:-</i> <ol style="list-style-type: none"> 1. <i>Renewable resources should not be harvested at rates exceeding regeneration rates.</i> 2. <i>Waste emissions should not exceed the renewable assimilative capacity of the local environment.</i> 3. <i>Non-renewable resources should be depleted at a rate equal to the rate of creation of renewable substitutes.</i> • <i>The government should develop an integrated labour market, population and education and training policy for WA and encourage the Australian government to do likewise.</i> • <i>WA should not accept energy intensive industries that will add significantly to its greenhouse gas output without first achieving an appropriate reduction to accommodate this addition.</i> • <i>Requirement for the Ministry of Planning and Local Government Authorities to only approve subdivisions whose orientation of housing lots is consistent with the construction of energy efficient housing.</i> • <i>Requirement for all building construction to meet basic energy conservation standards.</i> • <i>It should be noted that south western Western Australia is one of the few biodiversity hotspots in developed nations. As such, we have a global responsibility for stewardship of this area</i>
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<p>Sylvia Tetlow 200206685</p>	<ul style="list-style-type: none"> • <i>My main concern is the size of Western Australia's population and the ability of our natural resources (e.g. water and clean city air) to sustain it on an ecologically sustainable basis. Each person has an "ecological footprint". The ecological footprint of every Australian is about eight hectares - the size of five football fields. This figure has been calculated by the "Blackwood Basin Group" which is a regional landcare body in southwest of Western Australia.</i> • <i>Already the ecological footprint of Perth's population is 12 million hectares!</i> • <i>The present population has resulted in the severely degraded environment we are struggling to deal with but failing to do so.</i> • <i>It is clear that already our environment cannot support the present number of inhabitants on a sustainable basis. In stabilising Western Australia's population we are then acting responsibly towards our environment by not increasing the ecological footprint pressure on our fragile environment.</i> 	<ul style="list-style-type: none"> • <i>In developing a State Sustainability Strategy for Western Australia it is absolutely necessary that the conservation and preservation of our bio-physical environment should be it's primary goal and that this can be achieved by limiting the population pressure (both human and livestock) on this environment.</i> • <i>It is not an easy task to convince the Western Australian community to reduce their consumption (and hence their standard of living). Huge amounts of money have been spent already in a massive ongoing advertising campaign to convince the Western Australian community to reduce their consumption of water.</i> • <i>It is critical the Western Australian Government aim to stabilise the population of Western Australia at present numbers as it is clear that our fragile environment will only be degraded further with an increased population and does not have the water supply to maintain the present numbers at their accustomed standard of water use.</i> • <i>We can better manage the land by first stabilising the population and hence our ecological footprint. This would enable us to start to address the present water crisis and Perth's smog problem and we would then have no further need to clear bushland for housing development or for agriculture.</i>
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<p>Astrid Herlihy 200206595</p>	<ul style="list-style-type: none"> • <i>The CSIRO in an article in the West Australian 14 march 2002 "Big dry spell here to stay" has stated that in the last 25 years there had been only one winter of above average flow into dams, compared with 13 above-average winters from 1950-1975 here in WA.</i> • <i>Yet despite these worrying predictions it is business as usual and no attempts are made on a State or Federal level to stabilise our numbers through an end to immigration and Zero Population growth, and our very own Geoff Gallop in a media statement of 23 July 2001 said that "Perth will need better planning to cope with a predicted population of more than two million over the next three decades!"</i> • <i>We have now a population of 1.3 million, a further 700,000 people will spell disaster for our remaining old growth and re-growth Forests, native bushland and wetlands, and wilderness areas as well as coastal areas, all reeling under the pressure from too many HOMO SAPIENS, degrading and destroying Flora and Fauna habitat.</i> • <i>Even the Yarragadee aquifer is suffering from the stresses of urban development and as it is hydro-geologically connected to the Gnangara ground water mounds and the Leederville aquifer that recharge it, the impact in terms of distribution of groundwater de-pressuring and water table drop will be detrimental to the supply of clean drinking water and waterbird habitat.</i> 	<ul style="list-style-type: none"> • <i>As the driving force behind all development (destruction) is burgeoning population growth the word sustainability, the most misused and abused, as well as misleading word, in the English language, should not be used in regards to human activity, as everything we do has an adverse impact on our Eco-systems, apart from rehabilitating degraded environments that should never have been degraded or destroyed in the first place.</i> • <i>The Sustainability Policy Unit established in the Department of the Premier and Cabinet should be called the "Population Stabilisation Policy Unit", for unless WA stabilises, and even reduces, human population growth, the vicious circle of ecologically unsustainable development continues, as we have an ecologically unsustainable Population and we'll all waste precious time and money trying to control the uncontrollable.</i> • <i>I suggest that the Premier and all Staff read the "1998 State of the Environment Report," produced at considerable expense and effort by the previous Coalition Government under Premier Richard Court, a comprehensive and frightening report highlighting the enormous loss of biodiversity in Western Australia, with massive areas affected by salinity and land degradation, worsening air, land and water pollution and increasing water shortages caused by the pressures of a growing population.</i> • <i>Unfortunately our ecological footprint is 4.4 ha of productive land each to sustain our standard of living so it is grossly irresponsible both on environmental and social grounds to increase the human Population, Zero Population growth is the responsible, environmentally friendly answer.</i>
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Andrew Thomson 200206383	<ul style="list-style-type: none"> Scientists are arrogant if they believe that they can significantly reduce growth and consumption without controlling population. Western Australia's population is increasing rapidly with devastating effects. New houses, highways and rail systems are also a costly burden on the community. Precious bushland is being rapidly destroyed causing a loss of flora and fauna, and a loss of biodiversity. Land clearing is hastening climate change. The more people, the more pollution as instanced by the Bellvue fire. 	<ul style="list-style-type: none"> Although population is mainly a federal government issue, we need to speak out about restricting immigration and urging families to have fewer children. At the same time, we need to urge the Australian Government to increase overseas aid to 1.01 per cent of GDP to match Denmark's contribution to reduce population growth and poverty (Australia 0.25, USA 0.01 per cent).
Judy Blyth 200206516	<ul style="list-style-type: none"> We see how stretched our scarce water resources are - and seem now to be ready to drill more bores into the Yarragadee aquifer, a move I had thought was prohibited. We all need to reduce our water consumption rates. When the reservoirs are lowering, the population is asked to reduce watering gardens, shorten our showers, wash vehicles with buckets of water rather than hosing etc. Once we are used to such practices, why not simply leave them in place? 	<ul style="list-style-type: none"> One essential aspect of an SSS must be population size. Is the Gallop Government going to address this? Every time there is an extension of urbanisation, there is an outcry that yet another precious part of banksia woodland on the coastal plain or fragile Darling Range is 'going under'. Numbers of people and consumption per head have to be factored into a long-term SSS. Because the world itself is a finite system (apart from renewable energies), eventually human societies are going to have to stop growing - and that will either occur by famine, war, natural disasters etc - or by our own enlightened planning. Is there a brave economist or three 'out there' willing to devise the means of achieving a stable state economy?
ENVIRONMENTAL TECHNOLOGY		
Lindsay Snow 200204448	<ul style="list-style-type: none"> Sustainability presents a chance for Western Australia to become a world leader in developing sustainable technologies Technological development will benefit current and future generations through providing insight into mistakes past generations have made and how they fixed these problems 	
Brett Ranford 200204126	<ul style="list-style-type: none"> It is now that the research, policies and technology need to be implemented to ensure availability of necessities for the current and future population of Western Australia 	

Gerrard Mullen 200204664	<ul style="list-style-type: none"> • There is potential increased for increased exportation of sustainable technologies if sustainability is pursued • The widespread application of sustainable technologies will provide positive outcomes which could provide a swing towards a more harmonious and empowered society • WA needs to set goals and share facilitating skills and new developments to achieve sustainability on a wider front 	<ul style="list-style-type: none"> • National and international forums may provide fresh waves of thought and educate developing countries to not take the same path to development as Western countries
Christine Heal 200205705	<ul style="list-style-type: none"> • The State Government Innovative WA policy is an excellent initiative 	<ul style="list-style-type: none"> • Funding or an improved climate of support and fostering ideas is required. Further research into water desalination and associated technology to reduce costs is needed
FV&D4OP Collective 200204696	<ul style="list-style-type: none"> • See submission for details of research and development in Australia and the role of science and technology in sustainability. • <i>Science and technology in general is but one facet of our society, it is likely to be important in achieving a sustainable society, within the social paradigm in which we in Western Australia exist today.</i> 	<p>Science and technology and a sustainable future:</p> <ul style="list-style-type: none"> • <i>The development of technology which works in unison with environmental processes rather than against them. Western society has moved away from traditional land management techniques which allowed indigenous societies in many countries to exist for thousands of years. The development of appropriate technology may bridge the gap which has emerged between traditional and industrialized practices over the last two centuries, and decrease the ecological footprint of our society.</i> • <i>The development of appropriate technologies which provide simultaneous solutions to existing environmental problems. An example of this is recycling of greenwaste into compost, thereby solving landfill problems and the use of excess chemical fertilizers in agriculture.</i> • <i>Achieving quality of life for this and future generations and, importantly, preservation of the habitats of all living things, other than human beings.</i> • <i>The potential to combine science and technology with environmental protection and economic stability through the contribution of knowledge and technology transfer to society with a view towards achieving a sustainable future.</i> • <i>Ecologically sustainable generation of wealth through active participation in the knowledge economy.</i> • <i>Restoration of the balance between the environmental and economic facets of our society.</i>

Maintaining our Biodiversity

Sustainable Population Australia 200201710	<ul style="list-style-type: none"> • Purpose of nearly all development is to increase the utility of land for humans and decrease its utility for other species. 	
Dr Gary Luck 200202587	<ul style="list-style-type: none"> • Decisions must be made on the importance of biodiversity to humans and the moral and ethical obligations we have for biodiversity protection • Biodiversity conservation can only occur if we modify our behaviour and reduce our population size 	<ul style="list-style-type: none"> • Changes in biodiversity should certainly be used as one of the indicators of our success in achieving sustainability
Ellen Brook Integrated Catchment Group 200203498	<ul style="list-style-type: none"> • Biodiversity and heritage must be achieved by expert care and using precautionary principle 	
Paddy Weaver 200204121	<ul style="list-style-type: none"> • South west WA is ranked 12th in the world's biodiversity hotspots. The reefs of this area are ranked 9th in the marine hotspots, ahead of the Great Barrier Reef. The National Geographic highlighted the lack of appreciation for this asset in this state and in Australia. We are failing to recognise this as a great asset and an international responsibility. 	<ul style="list-style-type: none"> • The hotspots should be given high ranking in our international responsibilities
Brian Bucktin 200204123		<ul style="list-style-type: none"> • Legislation to discourage clearing of remnant and pristine bushland should be enforced. Increased penalties may be a way of discouraging offenders • DEWCP must be given some teeth to achieve this objective
Darralyn Ebsary 200204764	<ul style="list-style-type: none"> • It is important to protect and maintain our natural heritage and biodiversity. It may be costly to save this but future generations of the entire globe will value our efforts. We appreciate the foresightedness of previous generations that retained National Parks. International, national and local visitors appreciate our efforts. <i>We should truly appreciate, treasure and really 'value' these areas as precious commodities</i> • It is probable we have an enormous medical resource in our natural flora and fauna we are yet to access and use 	<ul style="list-style-type: none"> • Use of natural heritage and biodiversity resources through exporting knowledge we are gathering and developing in areas of mine site rehabilitation, cryo-genic storage and tissue culture of plant material, food and fodder plants etc. • Legislate to deter and control illegal clearing, drainage and waste material dumping in rural and metropolitan areas.

Wetlands Conservation Society (Inc) 200205351	<ul style="list-style-type: none"> • More emphasis is needed on the need to conserve biodiversity and water resources in the State Sustainability Strategy. • <i>WA has an appalling record for mismanaging its biodiversity and water resources</i> • Urgent action is needed to prevent the loss of large areas of the wheatbelt and pastoral zone to salinity and / or desertification. <i>The fight against salinity is not being waged with sufficient resources at present and this should be rectified as part of the Sustainability Strategy</i> 	<ul style="list-style-type: none"> • Government should keep its promise to complete an inventory of WA wetlands and should go beyond this to monitor and manage this natural heritage effectively • The State of Environment Report recommendations need to be implemented. A process and procedure for monitoring implementation should be included in the Strategy • A commitment to sustainability should be specifically included in the Environmental Protection Act and the planning legislation
Danielle Brown 200204665	<ul style="list-style-type: none"> • The protection and conservation of our biodiversity and old growth forests natural diversity is an issue that needs to be addressed • There is a need for a balance to be achieved between the natural environments and tourism or ecotourism so the environment is not threatened by social pressures 	
Keith Jones 200205377	<ul style="list-style-type: none"> • 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 	
Ruth Balding 200205374	<ul style="list-style-type: none"> • <i>More revegetation projects need to be undertaken in WA...relying on volunteers and community groups to do these projects makes it such a slow process without any systematic overall approach</i> 	<ul style="list-style-type: none"> • Revegetate all roadsides with natives to a minimum number of metres in from the road
Dr Robin IW Collin 200205458	<ul style="list-style-type: none"> • Species diversity is particularly at risk in Western Australia. Lack of land clearing controls has resulted in large losses of species diversity before flora and fauna could be catalogued and assessed for possible commercial benefits. Due to Western Australia's enormous species diversity, implications for discovering new biological compounds are immense 	<ul style="list-style-type: none"> • Strong policies are required to encourage the assessment and conservation of biodiversity

<p>Clint Garrett 200205462</p>	<ul style="list-style-type: none"> • WA's efforts in weed and feral animal control are impressive. WA's baiting programs dwarf anything being done in SA. • WA should continue its active protection of the natural environment. WA has significant biological treasures that it should protect fro all humanity. 	
<p>Mary Gray 200206686</p>		<p>Biodiversity a priority sustainability issue for WA:</p> <ul style="list-style-type: none"> • <i>shameful paucity of government resources applied to survey and properly document WA's megadiverse biota of all classes</i> • <i>astounding ignorance in all sectors of the priceless heritage values of our bushland and wetlands</i> • <i>catastrophic flora and fauna species loss likely in wheatbelt in near future</i> • <i>bushland loss and degradation in urban areas due to unsustainable urban sprawl</i> • <i>inadequate and inappropriate management of bushland eg fire management on Swan Coastal Plain, lack of weed control, rangeland management</i> • <i>absence of adequate legislation to protect bushland, wetlands and other natural remnants</i> • <i>pathetic under-resourcing of biodiversity protection by government</i>

<p>Greening Australia (WA) 200207139</p>		<ul style="list-style-type: none"> • <i>Nature conservation areas should comprise:</i> <ol style="list-style-type: none"> 1. <i>Representation of all the dominant vegetation associations, including valley floor, mid-slope and upper catchment vegetation associations;</i> 2. <i>Stable or increasing populations of all plant and animal species that naturally occur in the area of interest;</i> 3. <i>Patches of each habitat type large enough to support those species that have the greatest requirement for habitat area and to provide a range of microhabitats for species that require less area;</i> 4. <i>Connecting vegetation that ensures continuous populations of the most dispersal-limited species. This vegetation should be viewed as linear habitat for dispersal-limited species rather than simply “corridors” for mobile species;</i> 5. <i>Native vegetation along all drainage lines of sufficient width to act as habitat for lowland species and to absorb detrimental impacts from adjoining land uses;</i> 6. <i>Sufficient patches of connected habitat to ensure viable populations of all resident native species;</i> 7. <i>Management regimes designed to manage threats such as weeds, inappropriate fire regimes, and feral predators.</i> • <i>In the southwest agricultural landscapes, the protection of biological diversity will require significant habitat reconstruction, in addition to protecting the native vegetation that remains.</i>
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<p>Blackwood Basin Group 200206687</p>	<ul style="list-style-type: none"> <i>The Blackwood Basin Group works closely with landowners through its onground programs to protect the biodiversity of remnant bush in the basin. This is achieved through onground funding for fencing of remnants, direct seeding and replanting of vegetation as well as covenanting of areas of bushland located on private property. The Blackwood Biodiversity Program has identified and prioritised the top 1000 remnant vegetation sites in the Blackwood Basin and uses this information to identify projects, which will be of most benefit to the area.</i> 	<ul style="list-style-type: none"> Marketing tools to promote the importance of biodiversity and give it an easy to recognise value are required to engage people who do not already have an understanding of this concept. Once this awareness has been raised then marketing of products associated with biodiversity 'hot spots', i.e. regional branding can take place. The types of products to be marketed could include organic foods and chemical free crops which have been grown in a sustainable way with minimal impact on the biodiversity 'hot spot' located nearby. Other ideas for economic opportunity could include a greater development of the ecotourism market and an increase in promotion of lifestyle holidays i.e. farm stays etc.
<p>Heal the World Incorporated 200206618</p>		<ul style="list-style-type: none"> Now it is up to the government to allow at least one eutopian trial to see if it can rectify a bio-region. This would involve an enormous area of land because the lakes around Wagin for example receive chemical run-off from farms that are, well I don't know to be exact, but maybe a hundred kilometers or so to the east. The total area being so large would require total cooperation from farmers and industries that probably thought they had nothing to do with each other. However it is time that people realized that everything on this planet is interconnected. The government, being the bastion of authority could more easily appeal to this hotchpotch of farmers and industrialists on the basis of improving their income through increased productivity of the environment. Not in the usual manner through chemical deceit, but through biodynamics and sustainable development.

<p>Andrew Thomson 200206383</p>	<ul style="list-style-type: none"> • <i>The disregard for bushland by many fire fighters is disgraceful as instanced at Forrestdale Lake Underwood Avenue, Trigg, and Brixton Street bushlands. In some cases they made little effort to put out the bushfires in the early stages.</i> • <i>To make matters worse, tree loppers came along and felled a number of mature jarrah trees which were not burning and were not dangerous.</i> • <i>Birds and other fauna are significantly reduced by this loss of habitat. These acts of vandalism leads to a loss of biodiversity.</i> 	<ul style="list-style-type: none"> • <i>Biodiversity is the key indicator for sustainability.</i> • <i>The first step is to introduce a total ban on clearing with heavy penalties for flouting the law, and a Biodiversity Act (proposed more than 10 years ago) needs to be enacted.</i> • <i>Action is needed to implement the Sate Weed Plan to control weeds to maintain biodiversity. This would reduce fire hazards.</i>
<p>South Coast Environment Group 200209228</p>	<ul style="list-style-type: none"> • <i>SCEG submits that a number of smaller wilderness areas would constitute a more sustainable and safer approach than one large area, given the nature of the areas and the risk of wildfire. A larger number of wilderness areas would also provide the required flexibility to manage the impacts of nature based tourism on a sustainable basis. A number of wilderness areas would facilitate a system of rotation for tourist access between areas at different times, to allow for recovery of ecosystems from tourist impacts, as well as allowing the trial of different tourism management techniques.</i> • <i>SCEG firmly believes that the JANUS Area criteria¹ for the selection and definition of wilderness areas is inappropriate for the South West of WA. The criteria was primarily developed for ecosystems in the Eastern States.</i> • <i>The minimum area of 8000 hectares free of prior human impact should be reduced in the context of Southwest wilderness areas. It is submitted that the flexibility clause in the JANUS criteria should be used in the determination of potential wilderness areas in the Southwest.</i> 	<p>Recommendations:</p> <ul style="list-style-type: none"> • <i>The JANUS criteria should be altered under its flexibility clause to allow areas of under 8000 hectares to be defined as wilderness areas in the Southwest</i> • <i>A greater number of smaller wilderness areas are more sustainable than fewer larger areas, especially with regard to fire management and the impact of tourism.</i>

<p>Environmental Alliance 200206616</p>	<ul style="list-style-type: none"> • <i>Western Australia is almost one third of Australia's land mass and encompasses a diversity of environments from tropical rainforest patches through desert grasslands to temperate / Mediterranean-climate forests and species-rich shrublands, as well as coasts and islands, estuaries and inland water bodies.</i> • <i>The biota is rich but incompletely documented. For example, Western Australia contains about 12,000 species of vascular plants (of which about 7,500 are described), which is nearly half of the estimated total for Australia and includes 45% of the nation's rare and threatened flora. The State has a more proportionally rich vertebrate fauna than most parts of Australia comprising over 2,700 species (including fish).</i> • <i>Western Australia also contains 26 of the 80 Biogeographic Regions defined for Australia, some of those having the highest numbers of endangered and vulnerable species in Australia, and with high levels of extinctions recorded.</i> • <i>The identification of the South West of Western Australia as one of only 25 global biodiversity hotspots is welcome recognition amongst the international scientific community of the extraordinary biological values of this region.</i> • <i>This is the only part of Australia that has received this kind of recognition.</i> • <i>However, the recognition also addresses threats: there is a high level of concern amongst members of the international scientific community that the extraordinary biological values are under threat.</i> 	<ul style="list-style-type: none"> • <i>It is critical that the State move quickly to complete the establishment of the Comprehensive, Adequate and Representative protected areas system, to protect as much of the natural heritage and biodiversity values of the State for the use and enjoyment of present and future generations.</i> • <i>It is crucial, therefore, that mechanisms are developed and supported in an on-going manner to promote conservation on the other lands. This is referred to as off-reserve conservation. In addition, it is recognised that it is essential to maintain some biodiversity values across the spaces between the parks and reserves, and the off-reserve conservation areas. These spaces, referred to as the matrix, provide the linkages for the mobile elements of the fauna.</i> • <i>The establishment of such a database (possibly as a component of a whole-of-Government environmental database) should have priority as a fundamental tool for sustainability.</i> • <i>Threatening processes at work in the Region include land clearing, rises in water tables (reflecting the level of overclearing) and salinisation, overgrazing of remaining natural vegetation by livestock including goats, overharvesting of wood products and overexploitation of ground and surface water resources, inappropriate fire management, Phytophthora species and other plant diseases and foxes and feral cats. All these threatening processes must be managed better. And impacts of the threatening process to date should be ameliorated through processes such as revegetation by local native plant species.</i> • <i>The second challenge is to properly celebrate and enjoy the biodiversity values that gave rise to recognition of the global biodiversity hotspot status in the first place. This will necessarily include developing a better understanding of all those values, and making this information readily available to all Western Australians.</i> • <i>A dynamic South West Biodiversity Hotspot website that provides access to the available information, and is regularly up-dated as new information becomes available, is one possible mechanism.</i> • <i>The South West Biodiversity Hotspot could become a major tourism and eco-tourism destination if promoted adequately, and with appropriate diverse facilities to provide for the range of tourists who might come to visit.</i>
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Responding to Greenhouse and Climate Change

Dr Gary Luck 200202587		<ul style="list-style-type: none"> • Commit to the greenhouse gas reduction targets set by Kyoto Protocol despite the Federal position on this issue
Ellen Brook Integrated Catchment Group 200203498	<ul style="list-style-type: none"> • Reduce industrial, domestic and vehicle emissions • Ensure independent regulation of emissions as opposed to self-regulation • Increase natural energy development and research into renewable fuels • Education and awareness 	
Cornelia Major 200204125	<ul style="list-style-type: none"> • Putting some political push behind our sustainability efforts can reduce greenhouse gases 	<ul style="list-style-type: none"> • Increase traditional energy prices to reduce energy consumption and greenhouse emissions • Ratify the Kyoto agreement
Stuart Hawkins 200204122		<ul style="list-style-type: none"> • Although this is more of a Federal Government responsibility, State government can <ol style="list-style-type: none"> 1. Declare to adopt the principles of the Kyoto protocol for the State, and 2. Encourage Federal Government to ratify the Kyoto Protocol to set achievable greenhouse gas reduction targets
Shirley de la Hunty 200204691	<ul style="list-style-type: none"> • 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. • The initiative of establishing a Sustainability Policy Unit at the state level can influence the successful outcome of greenhouse emissions reduction and can make a global difference. 	

Jeanette Conacher 200203853	<ul style="list-style-type: none"> • <i>Greenhouse – still resistance in broader building trade to alternative energy practices/structures (particularly project homes, owner/builders)</i> • <i>Global context dot points: you need a dot point for pollution – consequences for natural and human systems, costs/risks to society/governments. Might also include a dot point on the impacts of social disruption as a result of war, natural disaster etc – mass migrations, conflict, aid etc</i> 	<ul style="list-style-type: none"> • <i>Investigate how to further behavioural change in the broader sector; consider stronger planning policies, incentives, subsidies (including retro-fitting).</i>
BP 200206484	<ul style="list-style-type: none"> • 	<ul style="list-style-type: none"> • <i>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 Photovoltaics 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.</i>
Mary Gray 200206686		<p><i>Enhanced greenhouse effect a priority sustainability issue for WA:</i></p> <ul style="list-style-type: none"> • <i>shameful Australian Government position on Greenhouse and Kyoto targets which is nothing less than misleading and dishonest to the Australian people</i> • <i>Failure of all levels of government to inform the community fully about Greenhouse emissions and sources</i> • <i>complete failure across the board to understand the severity and extent of the Greenhouse Effect and sources of emissions</i> • <i>profligate use and waste of fossil fuels in WA fostered by urban sprawl and transport system based on cars and promoted by government at all levels</i> • <i>cheap petrol fostering excessive use and waste</i> • <i>inappropriate government taxes and charges which seek to maximise production of cheap energy produced from fossil fuels</i> • <i>continuing use and growth of coal as an energy source</i> • <i>lack of policy, incentives and legislation for renewable energy production and use</i> • <i>absence of legislation requiring industry to move toward no net greenhouse gas emissions</i>

Notre Dame - Edmund Rice Centre 200206397		<i>The WA state government should place considerable pressure on the Australian Federal Government to sign the Kyoto protocol to reduce our greenhouse gas emissions</i>
Andrew Thomson 200206383	<ul style="list-style-type: none"> • <i>The lack of commitment to environmental issues by governments is clearly demonstrated by the disregard for climate change.</i> • <i>Another coal fired power station is still being considered, a steel mill is planned form Kwinana, bushland is being cleared for enormous freeways, and illegal land clearing is continuing because our laws are so weak.</i> • <i>We don't seem to care what happens to people living on islands in the Pacific or our own future well being, as polar ice melts and temperatures are rising, causing serious climate change.</i> 	

Jan 200206536	Star	<ul style="list-style-type: none"> • <i>A Greenhouse strategy is needed and I gather this is progressing.</i> • <i>Local government has shown leadership in this area with actual achievements. It needs to be included in the process.</i>
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<p>The Environmental Alliance</p>	<ul style="list-style-type: none"> • <i>Western Australia, already one of the highest per capita greenhouse polluters, will increase its greenhouse gas emissions by at least 17.42 million tonnes a year, if the industries proposed for the State go ahead. This will be an increase of around 30% on emissions in WA. When climate scientists are saying that we must reduce our greenhouse gas emissions by 60-90% to stabilise climate change, WA can no longer encourage, support or accept energy intensive industries as a major component of the WA economy.</i> • <i>As a wealthy country we should be investing in sustainable industries and / or industries that use little energy.</i> • <i>We cannot continue to argue that WA is special case or that allowing the establishment of these industries here will somehow lead to a global decrease in emissions, when there are alternatives available and it will mean not meeting our international commitments.</i> • <i>Australia is already an international pariah due to its stance on climate change. Our reputation will only get worse, and we will be responsible for adverse environmental impact on a global scale, if we allow energy intensive, greenhouse polluting industries to be established in WA when other countries are more mindful of emission levels.</i> • <i>CSIRO and other reports show WA to be hard hit by climate change, eg a potential increase in summer temperatures of almost 7° C in the north-west by 2070, and up to 60% decrease in winter rainfall in the south-west and severe impacts on agriculture and biodiversity¹. Not doing our bit will only rebound on WA's environment, population and economy.</i> 	<p><i>Climate change:</i></p> <ul style="list-style-type: none"> • <i>Government must develop and implement a strategy to reduce greenhouse gas emissions in WA and Australia by 70% by 2050, including setting targets for government and industry sectors; introducing the necessary legislation, standards and regulations; and putting in place appropriate planning and infrastructure.</i> • <i>The Government must reduce its own greenhouse gas emissions by requiring all government departments and agencies to prepare Greenhouse Action Plans with mandatory emission reduction targets, including mandatory targets for energy conservation and efficiency, sourcing of energy needs from renewable sources, lessening waste, reducing car use and switching vehicle fleets to cleaner fuels.</i> • <i>Government should conduct research to identify, demonstrate and support the economic and job creation opportunities of reducing greenhouse gas emissions.</i> • <i>Government should identify and promote regulations, standards and legislation to facilitate and support the development of sustainable industries, and remove the subsidies in the form of reduced energy prices to heavy greenhouse polluting industries.</i> • <i>Government should ensure carbon sequestration is used only as a transition strategy while other strategies to reduce greenhouse gases emissions at source are being developed and implemented.</i> <p><i>Transition to a new economic base:</i></p> <ul style="list-style-type: none"> • <i>A rapid transition to a carbon light economic base is essential if we are to reduce our greenhouse gas emissions by the recommended 60-90%.</i> • <i>To do this, we need to identify the economic opportunities and the job creation opportunities, of reducing greenhouse gas emissions. We need to look to the specific comparative advantages WA enjoys and what we need to do to capitalise on these.</i> • <i>The focus of greenhouse action must be on the dramatic and rapid reduction in greenhouse gas emissions at source. The use of sinks to reduce the amount of greenhouse gases in the atmosphere can be considered only as a transition strategy.</i> • <i>WA must immediately develop and implement a strategy to reduce greenhouse gas emissions in WA and Australia by 70% by 2050, including setting targets for government and industry sectors, instituting necessary legislation, standards and regulations and putting in place appropriate planning and infrastructure. The four key foci of the strategy would be:</i>
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Oil Vulnerability, the Gas Transition and the Hydrogen Economy

Sustainable Population Australia 200201710	<ul style="list-style-type: none"> • Agriculture and cities are dependent on fossil fuels for production and consumption. We have become oblivious to our dependence on plentiful energy supplies • Fossil fuel depletion will affect all socio-economic sectors of the Australian community • Renewable energies will not power 'business as usual' due to the low 'energy profit ratios' of most renewables. Transition to renewables will require major changes in our economy and society • Consultation paper speaks of 'a transition to a hydrogen economy' as though the transition is assured, painless and can fuel current population and economy- this statement is misleading • <i>'Transition to renewables must be made while fossil fuel is available to create the necessary infrastructure...If we wait until energy is scarce we will be unable to establish alternative sources for even limited supplies.'</i> 	
Cornelia Major 200204125		<ul style="list-style-type: none"> • Increase traditional energy prices to reduce energy consumption and greenhouse emissions • Increase fuel prices to discourage private car use and increase public transport use • Provide more financial incentives for truly sustainable energy sources such as wind and solar energy. Gas is a fossil fuel which won't last forever
Brett Ranford 200204126	<ul style="list-style-type: none"> • More available alternatives to petrol such as solar power, hydrogen, electricity and gas must be pursued. 	

¹ CSIRO op cit

<p>Brian Bucktin 200204123</p>	<ul style="list-style-type: none"> • Have the government recognise the limited future of many of our mineral extraction operations, especially fossil fuel extraction industries and other energy intensive industries • 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 	<ul style="list-style-type: none"> • Recommend that we move quickly towards clean energy production technologies, as other progressive and innovative countries are doing in order to achieve greenhouse gas reductions
<p>Keith Jones 200205377</p>	<ul style="list-style-type: none"> • 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 	

<p>Royal Automobile Club of Western Australia 200205446</p>	<ul style="list-style-type: none"> • <i>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</i> • Fuel cells will lead the way to developing a sustainable hydrogen based transport system • Currently it is estimated that fuel cell vehicles will not be common for at least 10 years. Fuel cell buses may be trialed in Perth • It is prudent to conserve fuel supplies so the changeover can be made gradually and disruption is minimised • RAC has embarked on a program to raise public awareness of the fuel market and oil resources. This means increased public recognition that reducing fuel prices will be counterproductive as it will lead to increased crude oil consumption resulting in the need to change to alternative sources of fuel faster. This would in turn be disruptive to the community. • Changes in fuel prices must be gradual due to heavy public opposition of sudden large increases in fuel prices • RAC also encourages members to use alternatives to the car where possible and raises awareness of technological developments and their impacts. 	
<p>Clint Garrett 200205462</p>	<ul style="list-style-type: none"> • WA has recognised the need for a transition to a hydrogen economy and should pursue this goal because hydrogen is a portable and concentrated fuel. • Because of WA's large natural gas reserves, there will be considerable resistance to hydrogen as fuel. But these reserves are finite. The message to Western Australians needs to be that renewable energy will create new jobs and will lower long-term costs. 	
<p>BP 200206484</p>		<ul style="list-style-type: none"> • BP supports the Hydrogen Fuel cell bus trials in 2004 and urges government to support wider market penetration of cleaner fuels

Peter Wilmot 200206297	<ul style="list-style-type: none"> • Pleased to see reference to coming oil shortages which should highlight need for changes to transport and urban design. 	
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<p>Brian Fleay 200206989</p>	<ul style="list-style-type: none"> • <i>Since 1995 Australia has been consuming oil and condensate at three times the rate of discovery.</i> • <i>Australia's oil and condensate self-sufficiency will decline from its present 80-90 per cent to less than 40 per cent by 2010.</i> • <i>The size of oil fields is diminishing - an increasing proportion of production is from smaller fields with shorter lives.</i> • <i>Australia has low oil prospectivity. New discoveries are expected to be of small size and more technically demanding with higher risks - e.g. heavy oil and increasingly in deep water offshore.</i> • <i>Consequently exploration and development costs are rising and companies are shifting their focus overseas.</i> • <i>Imports will have to come from the Middle East. These will be increasingly insecure, prone to unexpected disruption and competition from other importers of oil. This will occur in the context of declining world oil production outside the Middle East.</i> • <i>The large scale production of biofuels for transport (ethanol from grains, biodiesel from oil seeds) is not an option for even a significant fraction of current oil use. The net energy yield is small or negative, the area of land required is large at the expense of food production and the consequences for soil degradation unacceptable (Giampietro et al 1997).</i> • <i>Finding and introducing alternative fuels for aviation will be the most difficult task. Aviation is the transport mode most vulnerable to cheap oil depletion.</i> • <i>Cheap transport fuelled by petroleum products has created the contemporary tourist industry. What is its future in the oil depletion scenario?</i> 	<ul style="list-style-type: none"> • <i>Australia should urgently shift to natural gas based fuels to replace oil based petroleum products, and develop other alternatives like hydrogen and ceramic fuel cells, especially for transport.</i> • <i>Reduce oil consumption through demand management initiatives.</i> • <i>Further development of public transport infrastructure.</i> • <i>The need for tax and depreciation concessions by governments to make investment in more risky hydrocarbon developments more attractive, i.e. these will be more expensive than in the past.</i> • <i>These issues are far more important than reform of the electric power industry to introduce competition and the possibility of cheaper electricity.</i> • <i>A gas pipeline to the eastern seaboard, either from Papua-New Guinea or Timor Sea fields, will be needed in the middle of the decade to meet growing demand as Bass Strait and Central Australian gas fields approach their decline phase. Extraction of methane from NSW and Queensland coal beds is coming on the agenda.</i> • <i>Natural gas as a transport fuel is not as convenient to store and transport as existing liquid petroleum products, because it is a gas.</i> • <i>Interest is rising rapidly in gas-to-liquids (GTL) plants to convert gas into liquid transport fuels for the existing vehicle fleet - a plant is proposed for the Burrup Peninsula. But such processes consume energy, reducing considerably the net energy yield of the original gas. There is the energy input in building, operating and maintaining the plant. Thermodynamic theory tells us that any such energy conversion process necessarily leads to a substantial loss of energy - as much as 20-30 per cent from the process alone. Further lowering of net energy yield.</i> • <i>There is an urgent need to assess the life cycle EPR/net energy yield of Australian natural gas projects and of gas derived fuels in these circumstances.</i> • <i>Quantifying the life cycle EPRs of existing and alternative transport fuels, along with other energy and resource quality characteristics, are central to a State Sustainability Strategy. Such criteria will help define how urgent the change over task is, help define priorities, define unproductive pathways, give guidance on the rate at which change is possible, give guidance on where the greatest gains can be made quickly with the least effort, and show which economic and social areas are most at risk.</i>
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<p>Australian petroleum Production & Exploration Association Limited (APPEA) 200206523</p>	<ul style="list-style-type: none"> • APPEA does not support the use of subsidies or other non-market mechanisms to achieve sustainable development. APPEA supports market forces as the preferred basis for policy. • The mix of fuels to be used in the future is one aspect of sustainable development. In the sustainable development debate the impression is usually created that “renewables” are infinite, while fossil fuels are not. Rather renewables are part of the fuel mix. Over time the primary energy fuel mix and the end use mix vary. • How fuel is produced is another aspect of sustainable development. The role of gas in primary energy supply must be recognised. Australia can expect to be reliant on fossil fuel supplies for its energy needs for the foreseeable future. The attached editorial from a recent edition of Flowline sets out APPEA’s thinking on the process by which energy policy is being developed in Australia and key points to be addressed. • Sustainable development must clearly recognise the economic and social benefits of an industry. 	<p>Best practice is not just a single dimension issue. It must address:</p> <ul style="list-style-type: none"> • the terrestrial impact of energy supply AND use (issues like the area of land occupied by a wind farm, a mine, an oil field or a hydro dam; site decommissioning and rehabilitation; access to land by vehicles using rehabilitated seismic lines; land clearance for power transmission lines; waste and pollutants from power stations and mines; land loss for roads; radioactive waste disposal; loss of biodiversity due to dams); and • the marine impact of energy supply AND use (issues like the impact of seismic on whales, drilling near reefs; loss of habitat due to tidal power; oil spills from its transport by and usage in shipping; oil from motor vehicles and industry and tourism in sewerage and waste water discharges; waste water and pollutants from mines and power stations; fertiliser run offs from biomass production); and • the atmospheric impact of energy supply and use (including issues like the health impacts of smog and particulates; the agricultural and biodiversity impacts of acid rain; greenhouse – differentiating between emissions from energy extraction, transformation and end use; the impact of wind farms on biodiversity). • See submission for recommendations from The Gas Development Strategy for Australia.
<p>Tad Zalewski & Associates 200206631</p>		<ul style="list-style-type: none"> • Gas: Utilise LNG Micro-Cell technology to provide economical fuel for vehicles, industry and process plants. • Hydrogen: accelerate its use in WA. (Establish an institute to study and pioneer alternate fuels for the State)

<p>CMS Energy 200206624</p>	<ul style="list-style-type: none"> • <i>As a major investor in the energy sector in Western Australia, CMS Energy shares many of your sustainability goals.</i> • <i>Although the Western Australian domestic gas market is relatively small, CMS believes that the gas industry can play a pivotal part in the drive to increase the ecological, social and economic sustainability of Western Australia. CMS has interests in a number of projects and infrastructure assets that can foster the sustainability of the metropolitan and regional areas. In addition, we bring to the table a new approach to gas marketing and services that can substantially enhance the sustainability of Western Australia's energy needs.</i> • <i>An example of the sustainable outcomes that can be achieved by using gas as a fuel source can be found at Murdoch University, where CMS has recently contracted the University to the Parmelia Pipeline via the AlintaGas supply network. With this new contract, the university will achieve substantial cost savings, which could have the potential to release funds for upgrades which could lead to the university using less energy and producing fewer greenhouse gases.</i> 	<ul style="list-style-type: none"> • <i>We believe the Mondarra gas storage facility at Dongara could play a key role in substantially enhancing the sustainability of WA's energy resources. An extinguished gas reservoir, Mondarra can be used as a natural underground "tank" to store gas that can be redeployed through the gas distribution system as required in times of high demand, or when other supplies are threatened. Presently Mondarra has enough storage capacity to provide up to 40 days worth of gas for domestic use during an emergency, or five days of industrial gas supply.</i> • <i>An expansion of Mondarra using new gas compression technology is being considered by CMS. If we proceed with this project, it will provide increased certainty for smaller gas producers wishing to supply Perth's domestic and industrial markets. This in turn means more regional development and job opportunities, while increasing WA's technical base, reducing costs to consumers, and ensuring reliable flows of gas as a replacement for less environmentally sustainable sources of fuel for electricity generation.</i> • <i>CMS also has an interest in the creation of new sustainable opportunities through its interest in the Goldfields Gas Pipeline, which delivers clean, economical and safe energy from the North West to the Goldfields via the 1380 kilometre pipeline, significantly enhancing the economics and environmental impact of mineral processing in the Pilbara and Goldfields region.</i>
<p>The Environmental Alliance 200206616</p>		<ul style="list-style-type: none"> • <i>The Strategy should not include the concept that increasing natural gas exports is the answer to sustainability for WA.</i> • <i>The Strategy must address moving from fossil fuel dependence to a renewable energy future.</i>

Nuclear

<p>Anti-Nuclear Alliance of Western Australia</p>	<ul style="list-style-type: none"> • The horrors of the nuclear industry are well-documented – millions have died and are dying from the effects of uranium mining, nuclear power, weapons and waste 	<ul style="list-style-type: none"> • The consultation paper is encouraging and is a great advocacy for supporting the proposed “Nuclear Activities (Prohibition) Bill”
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Judy Forsyth	<ul style="list-style-type: none"> • <i>The Gallop Government was elected on this promised platform of mining policies and must now honour it. It must now refuse to allow Western Mining to develop Yeelirrie into an operating mine. Of course royalties will have to be sacrificed. When considered against the cost of the long term adverse effects of mining on public health these costs are minimal. Many people believe that pollution from mining is low level and of no more consequence than background radiation.</i> • <i>This is not true. Open -cut mining contaminates the atmosphere. The latest form of sulphuric acid leaching to extract uranium is open to accidents as was shown earlier this year at Beverly in South Australia. The groundwater can become contaminated with uranium particles as well as with the leachate. Please refer to THE ECOLOGIST VOL 29 NO7 1999 ,PAGE 395 for discussion of the dangers of low -level radiation.</i> • <i>This form of mining is not permitted any where in Western Europe any longer. It is possible that Western Mining might seek to sue the Government. However I believe that most women in this State would support the Government. The example of the deleterious effect of mining in Jabiluka is well known. The cost of damages would be willingly shared by parents in order to protect their health and that of their children.</i> 	<ul style="list-style-type: none"> • <i>Government must oppose uranium mining at Yeelirrie</i> • <i>Government has the mandate of its electors to annul the Yeelirrie Agreement.</i> • <i>If it does so it will be valued and remembered for its leadership and courage and for a historic decision. We do not need Yeelirrie to be a world heritage area like Jabiluka for this approach to be valid. Our heritage is the whole of this state and the legacy that we leave of it to our children. Our moral duty is to protect them from the dangers that we know about.</i> • <i>I ask the government to pass the WA Greens Nuclear Activities (Prohibition) Bill 2001 and make it law. This would be an outstanding political action and a crucial step in ensuring a sustainable future for the population of this State. If you do this you will save us from the impossible task of decommissioning and cleaning up our State from the release of plutonium and other toxic radionuclides into our environment. No foreign company will do that for us.</i> • <i>This year the WA Labour government has overturned previous Coalition policy and has expressed its willingness to consider nuclear free zone legislation by local councils and shires. Certain exceptions will be made ,such as medical isotopes. The government is to be heartily congratulated for this important decision which allows the citizens of this State to protect their health and safety and environment. All of these functions are consistent with local government responsibilities.</i> • <i>Nuclear Free declarations alone by Councils have no legal value. They need to be incorporated into local Town Planning Acts.</i> • <i>See submission for reasons and evidence of why nuclear power is unsustainable.</i>
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<p>Judy Blyth 200206516</p>	<ul style="list-style-type: none"> • <i>Prior to the last WA election, I was delighted to read that Dr Gallop regarded his opposition to Pangea's proposed plan to bury international high-level radioactive wastes in the outback of WA as one of his three greatest achievements as Leader of the Opposition.</i> • <i>The Nuclear Waste Disposal (Prohibition) Act 1999 had been passed with both major parties' support. I wrote to him after the first anniversary of Labor achieving government here to say how I had welcomed that statement that he had made - but also to ask what he had done about nuclear issues since he had been in power. His reply stated that he saw some shortcomings in the 1999 legislation - but did not go on to say that the ALP while in government would support the Nuclear Activities (Prohibition) Bill that has been tabled in the Legislative Council already during his administration by Giz Watson, a Greens MP.</i> 	<ul style="list-style-type: none"> • <i>One other essential part of an SSS for WA is that we must maintain our position of not mining uranium - and also continue to stay right out of the extraordinarily harmful nuclear fuel cycle.</i> • <i>Unless this current Labor Government uses its term in power to enact the proposed legislation, there is the very real possibility that a future government under Colin Barnett would quickly allow uranium mining to start up in this state and also give its blessings to a Pangea-like burial plan.</i> • <i>The 1999 legislation I have referred to above does not address transportation of radioactive materials; neither does it adequately address the definition of radioactive waste. Such shortcomings were why Dr Marcis Kerzeme of Pangea International thought he could 'drive a truck through' that 1999 Act.</i> • <i>If the Gallop Government will oversee the successful passage of the new Bill (which would eclipse and replace the 1999 legislation), that would be a great stride indeed for an effective SSS.</i> • <i>In fact, without such legislation, I would think much of the other effort towards a SSS would be undermined.</i>
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<p>Community Anti-Nuclear Network of WA 200206491</p>	<ul style="list-style-type: none"> • <i>We would like to congratulate the Gallop government on its anti-nuclear policy.</i> • <i>The anti-nuclear stance of the Gallop government stands in stark contrast to that of the previous government, and sends a strong message to the rest of Australia and the world.</i> 	<ul style="list-style-type: none"> • <i>We encourage the Gallop Government to consider nuclear issues as issues of sustainability. The nuclear industry, which produces radioactive waste which will have to be managed by future generations for hundreds of thousands of years, contravenes the principle of intergenerational equity as outlined in the consultation paper "Focus on the Future: Opportunities for Sustainability in Western Australia":</i> <p><i>"...our decisions today should not compromise the choices of those generations still to come..."-p.6</i></p> <ul style="list-style-type: none"> • <i>As is recognised in this consultation paper, Western Australia cannot focus solely on achieving sustainability within its own borders in developing its sustainability strategy, because Western Australia is connected with the wider world. If Western Australia were to begin mining and exporting uranium we would be contributing to the nuclear cycle in other parts of the world.</i> • <i>A Western Australian uranium mining industry would threaten efforts towards sustainability in other parts of the world.</i> • <i>Despite the legislation passed in the 1999 Nuclear Waste Storage (Prohibition) Bill, the nuclear industry still poses a threat to sustainability in Western Australia. The 1999 bill still allows for the storage of radioactive material generated in Australia which may have a future use. There is nothing in the bill to prohibit uranium mining or the transport of radioactive material.</i> • <i>In order to achieve sustainability in Western Australia we must legislate against the transport and mining of radioactive materials, and close the loopholes in legislation against radioactive waste dumping.</i>
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Resource Consumption and Ecological Footprint

Sustainable Population Australia 200201710	<ul style="list-style-type: none"> How is the 10 fold reduction in consumption of resources going to be achieved while maintaining the same standard of living? 	
Brett Ranford 200204126	<ul style="list-style-type: none"> Overproduction and over-consumption in our lifestyles needs to be addressed to ensure that sustainability is achieved 	
Paddy Weaver 200204121	<ul style="list-style-type: none"> At the Victorian Population Summit, Barney Foran stated that to achieve sustainability, Australia has to reduce its consumption to 30% 	
K.D. Walsh 200204451	<ul style="list-style-type: none"> Sustainability is a necessary pursuit if we hope to achieve and maintain both population and economic growth If sustainability was taken more seriously our ability to live in Western Australia would be ensured. Our current ability to maintain population growth is in doubt due to our unsustainable use of resources, e.g. water 	
Dr Robin IW Collin 200205458	<ul style="list-style-type: none"> The majority of WA citizens will have economic and social goals that predicate a high level of consumption. This creates an inherent conflict with the fragile environment in WA which is sensitive to any turbation resulting from use Consumption is likely to increase where resource providers profit proportionally to the amount of resource consumed 	<ul style="list-style-type: none"> Resource consumption and replenishment rates must be monitored to all accurate assessment of the sustainability of that resource
Christine Heal 200205705	<ul style="list-style-type: none"> Rampant materialism is caused by factors such as indiscriminate TV viewing, negative aspects of mass schooling, conformity and social factors promoting 'having' as the answer to anything These trends will be difficult to impact on though some areas where progress is being made is in waste and misuse of resources 	<ul style="list-style-type: none"> True leaders in Government should counter this trend of materialism

Jeanette Conacher 200203853	<ul style="list-style-type: none"> Considering three quarters of the State's population lives in the metro region, for data refer to Future Perth rather than 1998 SoE report., or obtain interim data from current SoE working group. <i>Patterns of production and consumption (and by implication, behaviours) are not the only 'drivers'; policy and planning decisions have direct and indirect impacts on priority environmental issues, as do socio-economic ones.</i> 	
Bryce Bunny 200206824		<ul style="list-style-type: none"> the strategy should recognise the high levels of per capita consumption in WA and looming environmental and resource conflicts
Mary Gray 200206686		<p>Profligate consumption of resources and waste generation a priority sustainability issue for WA:</p> <ul style="list-style-type: none"> <i>excessive consumption of consumer goods of all kinds</i> <i>per capita waste production second only to USA</i> <i>absence of an ethic and legal standard of continuous recycling for all goods throughout their life cycle (ie zero waste)</i> <i>hence lack of recycling and reuse of products, containers and packaging</i> <i>failure to systematically reduce our use of and dependence on fossil fuels</i> <i>continuing pollution by waste materials of all kinds in air, water, land, (surface and underground)</i> <i>lack of government legislation and regulation to make recycling and reuse mandatory for all products in a pattern of continuous product lifecycle</i> <i>water resources wasted on European style gardens and inefficient household practices</i> <i>fundamental lack of understanding and denial of the reality of the fragile landscape in which we live: for example inability of soils to retain nutrients, denial of the natural flora and fauna etc</i>

Hills Ecovillage Project 200207496		<ul style="list-style-type: none"> On average each Western Australian effectively uses between 17 and 31ha of land to maintain their standard of living... To be sustainable we should be aiming to reduce the total ecological footprint of our economy by at least half over the next 10-20 years.
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<p>Sustainable Population Australia (WA) 200207135</p>	<ul style="list-style-type: none"> • <i>Most wealthy nations have low and / or stable populations</i> • <i>Biologists have estimated in dollar terms the value of the natural ecosystems that maintain the quality of our water, air, land and seas. The figure of \$33 trillion (US) exceeded the total global GDP at that time (Senator Robert Hill).</i> • <i>Contrary to popular belief, Australia's population is very definitely NOT declining. Our total fertility rate (1.7 children per woman) is below replacement rate (2.1) but because we have a young population with many below reproductive age and since life expectancy is still increasing, births exceed deaths by around 120,000 per year. With this natural increase in population and around 110,000 annual gain from immigration we added 229,500 to our population in the year to June 2001 (ABS 3101.0, December 2001). Our population, now over 19 million is expected to reach 24.1 million by 2050 at existing migration rates.</i> • <i>Australia's population growth rate of 1.2 per cent is one of the highest of developed (OECD) countries, with annual natural increase (120,000 to June 2001) being slightly greater than net overseas migration (immigration minus emigration - 109,700 to June 2001) (Australian Bureau of Statistics).</i> 	<p><i>Recommend:</i></p> <ul style="list-style-type: none"> • <i>that the following definition for sustainability be adopted by the Government of Western Australia. Sustainability: Quality lifestyle that meets the needs of today without compromising the needs of future generations or the ecological processes on which life depends.</i> • <i>that in developing a sustainability strategy for Western Australia obligations to global as well as local needs be recognized</i> • <i>Adherence to the sustainability principles of Daly should be adopted as the basis of the strategy (Daly, Herman E & Townsend, Kenneth N., "Valuing the Earth: Economics, Ecology, Ethics.", MIT Press 1993,). These are:-</i> <ol style="list-style-type: none"> 4. <i>Renewable resources should not be harvested at rates exceeding regeneration rates.</i> 5. <i>Waste emissions should not exceed the renewable assimilative capacity of the local environment.</i> 6. <i>Non-renewable resources should be depleted at a rate equal to the rate of creation of renewable substitutes.</i> • <i>The government should develop an integrated labour market, population and education and training policy for WA and encourage the Australian government to do likewise.</i> • <i>WA should not accept energy intensive industries that will add significantly to its greenhouse gas output without first achieving an appropriate reduction to accommodate this addition.</i> • <i>Requirement for the Ministry of Planning and Local Government Authorities to only approve subdivisions whose orientation of housing lots is consistent with the construction of energy efficient housing.</i> • <i>Requirement for all building construction to meet basic energy conservation standards.</i> • <i>It should be noted that south western Western Australia is one of the few biodiversity hotspots in developed nations. As such, we have a global responsibility for stewardship of this area</i>
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Peel Preservation Group 200205797		<ul style="list-style-type: none"> • The relationship between population, resources, consumption and sustainability must be considered. • <i>Such a relationship cannot be denied, avoided or dismissed when discussing the whole question of sustainability.</i> • <i>Immediate scientific research must hone in on to what extent this dry, infertile land of ours can be exploited.</i>
Andrew Thomson 200206383		<ul style="list-style-type: none"> • See submission under heading Resource Consumption and Ecological Footprint

Other Global Sustainability Issues

Athol Barrett 200203227	<ul style="list-style-type: none"> • Global strategies are required in which to position national/state strategies to optimise effectiveness 	<ul style="list-style-type: none"> • An institute be formed to engage community support in Australia's position in international affairs
Brett Ranford 200204126	<ul style="list-style-type: none"> • Western Australia must contribute to the national and global progress of sustainability through establishing itself as a leader through the development and implementation of new and successful ideas. 	
Jeanette Conacher 200203853	<ul style="list-style-type: none"> • Western Australia could find better ways to implement, promote and review relevant international, National and state agreements, policies and protocols to contribute to national, regional and global progress towards sustainability 	<ul style="list-style-type: none"> • WA should adopt, refine and promote key economic, social and environmental indicator data such as that used by OECD.
Notre Dame - Edmund Rice Centre 200206397		<ul style="list-style-type: none"> • <i>It is noted in the consultation paper that WA has been highly innovative in sustainability at a global level. This needs to be extended to WA businesses that operate overseas. Rees and Wackernagel (1996) state that in many respects the Third World is providing the surpluses that [developed] countries exploit in order to have their extremely high standards of living.</i> • <i>As stated earlier we must be educated about the global impact of our living.</i> • <i>Additionally, policies need to be made to ensure that WA businesses operating internationally are mindful of the ecological, social and economic conditions of the countries in which they are operating. These must be considered and balanced in business and work in every country as they are in WA. This works towards reducing any kind of deficit on the earth as a whole.</i>

