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Sustainability and governance

Vision for Western Australia

Western Australia’s system of governance is world famous for responding to sustainability issues, implementing effective and financially responsible programs, supporting transparent and inclusive processes and reflecting the State’s globally significant responsibilities towards the land and its people.

Goal

Ensure that the way we govern is driving the transition to a sustainable future.

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Government needs to show leadership on sustainability. This is a global theme that was echoed time and again in public submissions.

Government should be giving leadership. It should be constantly raising the profile of sustainability, announcing a vision for the future. All government departments should be taking the lead to improve their economic, social and environmental performance in a demonstrable manner i.e. Government should be actually "walking the talk" in sustainable practices, soon rather than later.
Australian Corporate Citizenship Alliance, Western Australia

Government has a leadership role to play and to ensure that mechanisms are in place for all relevant government departments to have a consistent vision, commitment and approach towards the attainment of sustainability, along with clear channels of communication. In Western Australia, restructuring and the combining of natural resource management agencies such as the Department of Environmental Protection (DEP) and the Water and Rivers Commission (WRC) is a positive move towards integrating institutions and establishing a consistency in governance toward sustainability.
Eastern Metropolitan Regional Council

Governments can achieve a significant amount, by the example of how they operate their own organization, the policies they pursue and by the leadership they show to others...because of the importance we attach to strong and clear leadership from government, we recommend the Government uses its own Sustainability Strategy document to send the clearest possible signal about the future direction of WA.
BP Australia Ltd

Sustainability applies to all government activity and is being considered and reflected in a range of other policy initiatives. The links to these will be made throughout the Strategy.

This section proposes governance arrangements to support sustainability within the Western Australian Government and its agencies, with local government and other stakeholders, at the regional scale and in support of Indigenous sustainability. The section begins with the emerging area of sustainability assessment. It then describes how government agencies must operationalise sustainability in their planning, decision-making and day-to-day activities. It proposes institutional reform for sustainability, and discusses the importance of research and development for sustainability and of measuring and reporting on sustainability.

Local government has a critical role in planning and decision-making for sustainability and many sustainability issues are best addressed at this level. A State-Local Government Sustainability Roundtable was established at the release of the draft State Sustainability Strategy and has been working to develop a State-Local Government Sustainability Partnership Agreement. A draft of the Agreement is available on the web site. It is anticipated that when it is finalised, the Partnership Agreement will provide for State and local governments to work cooperatively within the Sustainability Framework and lay the foundation for ongoing dialogue on progressing sustainability in key areas, for example through the planning system. The planning system is discussed in some detail in *Planning for sustainability* as a statutory mechanism for implementing responses to many sustainability issues at the local and regional levels.

In recognition of the diversity within Western Australia and the government’s commitment to the regions, this section proposes the development of Regional Sustainability Strategies, and describes possible future roles for Regional Development Commissions. Regional Councils (groups of local governments) are highlighted as important agencies for implementing the State Sustainability Strategy.

The Western Australian Government has recognised the rights of Indigenous people through its Statement of Commitment to a New and Just Relationship, jointly signed by the government and the Aboriginal and Torres Strait Islander Commission in 2001. Building on this, the Strategy describes how the government will undertake to support the pursuit of sustainability for Indigenous communities.

> SUSTAINABILITY ASSESSMENT

Sustainability assessment is a new process that provides integrated advice to achieve net benefit outcomes. The government will build on environmental impact assessment to develop sustainability assessment of complex or strategic projects and will also apply it to projects, plans, policies and programs within government.

Sustainability-based environmental assessment is certainly different from the more common, narrower exercises that typically consider only some aspects of environment and focus chiefly on negative effects. It is more ambitious, more demanding and much more positive. But it is also, in important ways, not a huge step from present practice and present capabilities.

RB Gibson

The Western Australian Government was elected with a commitment to improve decision-making processes across government through greater integration. In particular there is a commitment to establish a mechanism for sustainability assessment that would build upon the State’s strong record in environmental impact assessment. The Final Report of the Review of the Project Development Approvals System (Keating Review) has highlighted the need for a coherent sustainability assessment framework for State significant projects in Western Australia. The review noted that most submissions in response to its interim report supported establishing such a framework, but not for smaller projects.

The establishment of a sustainability assessment process will be a major step forward in simplifying and creating a more effective decision-making process. It is not an easy process to change due to the silos of government and disciplines of professions. It will require careful trials to establish the processes and a long-term commitment to build capacity across government and society. Cabinet will select those projects to be subject to sustainability assessment.

Some innovative companies in the private sector are already using sustainability assessment as an internal mechanism for decision-making because of its value in integration and holistic perspective (see Box 14 on Hamersley Iron).

Sustainability assessment is already beginning in government but until it is a fully developed, integrated process it is likely to be limited to consideration of separate environmental, social and economic factors. This is best labelled ‘triple bottom line’ assessment. Sustainability assessment integrates these factors at the start and throughout the assessment process, using an approach that promotes positive outcomes (see Table 2) with clear goals guiding the process.

Sustainability assessment involves a number of processes that are already developing across government in health assessment and gender assessment as well as the many elements already occurring as part of environmental assessment.

While government will move to establish processes for sustainability assessment, it is proposed that transitional arrangements be put in place to enable important government decisions to begin to be assessed in this way.

The character of sustainability assessment

Sustainability assessment is not meant to provide another set of barriers or ‘hoops to jump through’ for proponents seeking approval for projects. Sustainability assessment will make transparent the kind of social and economic issues that government must take into account when considering a project, as it currently does with environmental assessment.

Government (and proponents) often consider social and economic issues (along with formal environmental assessment conclusions) but these considerations are not necessarily transparent and are rarely integrated from the beginning of the process. This generally means that government sometimes has to make difficult decisions, involving significant trade-offs between social, economic or environmental factors.

Sustainability assessment is designed to work through the social and economic issues in a transparent way (similar to that for environmental considerations) and then to find integrated solutions where trade-offs are minimised or non-existent wherever possible. It is about ‘win-win-win’ or net benefit.

There will always be some local impacts from any change which can alter the environment, the community and the economy. Assessment processes are there to ensure that these are managed and acceptable. Sustainability Assessment enables, through for example offsets, to go beyond local changes and demonstrate how net benefit can be achieved in environmental, social and economic terms, as a total package.

Sustainability assessment is emerging as a way to improve decision-making on major, complex or strategic projects with opportunities for public engagement and consultation. It not only offers the potential to resolve apparently deep conflicts and minimise potentially harmful impacts, it has the potential to provide clear, positive benefits. It is a new paradigm in assessment and therefore requires a new framework to be developed. It is also being developed for the assessment, within government, of projects, plans, policies and programs.

BOX 14 HAMERSLEY IRON'S SUSTAINABILITY ASSESSMENT PROCESS

Hamersley Iron has adopted an internal decision-making process based on sustainability assessment. The key idea is to try and find net benefit in the social, environmental and economic areas in an integrated way.

An example is an assessment that was conducted on the management of the company's pastoral leases in the Pilbara. The question was whether to operate these leases to maximise yields of cattle, relinquish them to achieve social and environmental benefit only, or consolidate them with a balance of these goals. The process involved detailed interviews with over 30 stakeholders from government, Hamersley Iron, community and industry groups. The results were put into a ‘spider web’ decision-making diagram where the results on each issue were either positive or negative along an axis (based on the strength of responses given in the interviews). The distance along the line in a positive or negative direction could then be added to give an overall social result, an overall economic result and an overall environmental result.

The first attempt did not show any of the three management options as having net benefit on all three factors. Potential mitigations were developed and the options were presented to stakeholders again. This time a clear result for the consolidated option came through with net benefit in all three areas.

The company has since applied the technique to a much more complex mining decision and also found that the first options were not acceptable in this sustainability framework. After modification an option was found that solved this problem. Technical assessment of this option is now underway. This option could then be taken to the Board and eventually to government for their approval processes. Hamersley Iron acknowledges that significant resources are required to use the process and intends to use the methodology for significant development proposals rather than fully integrating the methodology into all aspects of the business.

Source: Bruce Larson, Hamersley Iron

Long-term arrangements

There is a need for commitment to the long-term evolution and development of the assessment process, to build capacity, to reform institutional and legislative arrangements and to establish new procedures, criteria and guidelines. This will need to be an incremental and organic process where government, industry and community continuously learn from experience and progressively adapt the sustainability assessment process accordingly. At each stage Cabinet will determine whether and how sustainability assessment will be used in the assessment process.

The sustainability assessment framework

Sustainability assessment builds on the sustainability framework already outlined and has the additional elements of criteria, assessment techniques, procedures and guidelines. A discussion of the emerging procedures and techniques associated with sustainability assessment is provided by the Working Group on Sustainability Assessment (see web site and CD-ROM).

Table 2 below sets out a series of criteria that could be used in the process of a sustainability assessment. These are derived from and supplement the sustainability principles within the sustainability framework. The two columns show the major differences in approaches to assessment: one is to minimise the negative impacts of a project, plan, policy or program; the other is to promote the positive outcomes. The first approach is what is usually called ‘impact assessment’ and the second describes how the ‘sustainability assessment’ approach should work.

Table 2 Criteria for sustainability assessment	
Managing the negative	Promoting the positive
Provides short-term gain but long-term economic gain is uncertain.	Provides both short and long-term economic gain.
Minimises impacts on access, equity and human rights in the provision of material security and effective choices.	Increases access, equity and human rights in the provision of material security and effective choices.
Avoids damage to biodiversity, ecological integrity and life support systems.	Improves biodiversity and ecological integrity and builds life support systems.
Minimises the increase in ecological footprint while improving quality of life.	Reduces ecological footprint while improving quality of life.
Minimises impacts on community and regions, ‘sense of place’ and heritage protection.	Builds up community and regions, ‘sense of place’ and heritage protection.
Minimises conservation loss and social impact while providing economic benefit.	Provides conservation benefit and net social-economic benefit.
Minimises the reduction of ‘common good’ resources.	Increases ‘common good’ resources
Minimises the risks which are not understood.	Ensures there are acceptable levels of risk with adaptation processes for the worst scenarios.
Brings change without hope for the future as it is not part of a broader strategic vision.	Brings change and a sense of hope for the future as it is linked to a broader strategic vision.

There are many techniques to aid decision-making that integrate social, economic and environmental factors and can incorporate the principles of sustainability. There is no single preferred approach and each jurisdiction must build on the unique legislative and institutional process of assessment as well as the collective experience and capacity in the community, industry and government agencies.

A number of industries have already begun doing sustainability assessment as part of their internal decision-making (see Box 14 on Hamersley Iron, and the Case Study on Argyle). The techniques of integration need to be discussed between those industries grappling with the issue, consultants, academics, community groups and government agencies. The Working Group has outlined some of these.

Western Australia has a strong base in environmental impact assessment with some experience in strategic environmental assessment. The government has capacity in economic assessment though it is not clearly linked to environmental assessment. However, social assessment is not well established in government with the last concerted effort being phased out in 1993. There have been some recent examples of multi-criteria analysis that have shown how planning can involve a transparent process of sustainability assessment. These strengths and weaknesses have informed the recommendations on institutional change here and in following sections.

Project sustainability assessment

Arrangements for sustainability assessment of complex or strategic projects

There has until recently been no attempt to publicly assess the economic and social impacts of major development proposals. The government has started to fill this gap, in the case of Chevron Texaco’s proposal to access Barrow Island to develop the Gorgon gas field. This occurred through a social-economic-strategic assessment with public comment along with the Environmental Protection Authority’s environmental assessment. The process has been managed by the Standing Interagency Committee of Chief Executive Officers.

It is proposed to review this process and then to apply sustainability assessment to those projects that are particularly complex or strategic as determined by Cabinet. In terms of project assessment there is a need to provide capacity in government for the implementation of sustainability assessment within the areas of social and economic sustainability. In particular the skills of economic assessment and social assessment are needed to assist with the sustainability assessment process.

Residential development control decisions

The Minister for Planning and Infrastructure has announced that all local and State planning decisions subject to development control, will take a sustainability scorecard approach. This is sustainability assessment at the local planning level. See *Settlements* for more detail on this proposed process.

Internal Sustainability Assessment

Government has made an election commitment to ensure that agencies incorporate sustainability principles into their activities and many agencies have been building sustainability into policies and programs. The Department of the Premier and Cabinet will continue to provide advice to government agencies on how to use sustainability as the basis for developing and reviewing programs, policies and agreements. The Sustainability Code of Practice for Government Agencies (see *Embracing sustainability in government agencies*) will include guidelines for government agencies on policy development and sustainability assessment of policies, programs and agreements.

Sustainability assessment for projects, plans, policies and programs within government

Sustainability assessment involves gathering information about the impact of the project, plan, policy or program (PPPP) against relevant sustainability principles and government goals. Once that information has been collected, an assessment can be made as to whether the PPPP has an overall net benefit relative to other alternatives.

It is recognised that some PPPP may have an adverse impact on some sustainability principles and that some trade-offs are inevitable. In short, a PPPP will be acceptable as long as it does not compromise the government’s ability to achieve sustainability outcomes and it has greater net benefit than alternatives when all relevant economic, social and environmental factors are taken into account.

Every department needs to develop its own expertise and capacity to handle sustainability assessment of day-to-day projects. Agencies will need to develop a social, environmental and economic checklist and a range of techniques that can help to integrate these.

Table 3 Proposed criteria for prioritisation of key projects in the planning and infrastructure portfolio

Goal	Strategic Direction	Objective/Outcomes
Economic	Economic	Wealth creation International competitiveness Shared benefits to the community Secures jobs - long term High benefit cost ratio
Environment	Environment	Maintains ecological processes Improves use of natural resources (energy) Enhances natural and built environment Supports biodiversity
People and Communities	Accessibility	Enhances transport choices Provides basic level of access Accessible for people with disabilities
	Social inclusion	Enhances vibrant communities Supports Indigenous communities
	Safety and health	Transport safety impacts Physical activity impacts Health impacts (third parties)
Governance	Integration	Land use/ transport synergy Integrates transport modes Whole of government policies
	Financial	Internal rate of return
		First year rate of return
	Community involvement	Meets community needs Involves public Uses transparent process

For example, Main Roads WA use an assessment technique for all projects that initially considered environmental and economic factors and is being expanded to include social aspects. Another sustainability assessment is required at the level above this to consider all projects and prioritise them. The Minister for Planning and Infrastructure is developing a portfolio-wide response to integrated funding of planning and infrastructure (see Table 3).

The Department for Planning and Infrastructure and other government agencies are currently using techniques like citizens’ juries and multi-criteria analysis with community-based weighting of sustainability criteria to decide on preferred planning options. The Sustainability Code of Practice for Government Agencies (see *Embracing sustainability in government agencies*) will outline how agencies can use multi-criteria analysis and similar tools as a basis for incorporating sustainability into decision-making.

Cabinet submissions

The Policy Division, Department of the Premier and Cabinet, currently provides advice to the Premier on sustainability and other policy implications of Cabinet submissions. The Policy Division will use the sustainability assessment framework as the basis for providing advice on Cabinet submissions. The Sustainability Code of Practice will include guidelines for applying the sustainability framework to Cabinet submissions. Government will also modify the Cabinet Handbook to incorporate the requirement to address sustainability issues.

Corporate plans

Government agencies have highlighted the need for guidance on how sustainability considerations can be integrated into their decision-making processes, including criteria and guidelines to ensure their practices are consistent with sustainability objectives. The Sustainability Code of Practice for Government Agencies will include guidelines for applying the sustainability framework to corporate plans.

In short...

Vision

Sustainability assessment forms the basis of all significant government decisions and is embedded into all levels of government activity.

Objective

Enable net benefit outcomes to be achieved from an assessment process that is consistent with sustainability principles.

Actions underway

- Triple bottom line assessments are being trialled for complex and strategic projects.
- The Western Australian Government has responded to the Review of the Project Development Approvals System (Keating Review).
- A gender assessment tool is being developed for integration into sustainability assessment and all other policy decision-making by government agencies.

Actions

- 1.1 Undertake sustainability assessment on those complex or strategic projects selected by Cabinet.
- 1.2 Improve the capacity of government to undertake integrated sustainability assessment with skills being developed in economic and social assessment and in the integration of individual factors making up the sustainability assessment.
- 1.3 Develop the process of sustainability assessment by building on the present assessment system and with the involvement of stakeholders.
- 1.4 Facilitate sustainability assessment of Cabinet Submissions and government projects, plans, policies or programs through a variety of techniques such as checklists, multi-criteria analysis and sustainability scorecards in the development control system.

Global opportunities

The process for sustainability assessment is likely to produce better all round outcomes for government, industry and the community. Considerable discussion is occurring globally on the need for sustainability assessment though no government appears to have a comprehensive process in place. If Western Australia can develop this process and establish capacity to ensure it is done well, then this service could contribute to a significant global market.

Further information

Buselich, K 2002, *An Outline of Current Thinking on Sustainability Assessment*, sustainability background paper, State Sustainability Strategy CD-ROM, Department of the Premier and Cabinet, Perth.

Gibson, R 2001, *Specification of Sustainability-Based Environmental Assessment Decision Criteria and Implications for Determining ‘Significance’ in Environmental Assessment*, Canadian Environmental Assessment Agency Research and Development Programme, viewed August 2002, http://www.sustreport.org/downloads/Sustainability_EA.doc

Independent Review Committee 2002, *Review of the Project Development Approvals System: final report*, Government of Western Australia, Perth, viewed August 2002. http://www.premier.wa.gov.au/Feature_stories/ProjectApprovalsFinalReport.pdf

Pope, J 2003, *Sustainability Assessment Working Group Outcomes*, State Sustainability Strategy CD-ROM, Department of the Premier and Cabinet, Perth.

> INSTITUTIONAL CHANGE

Sustainability involves most government agencies and ministers; each has responsibilities primarily in social, environmental or economic dimensions – the need is to provide integrated policy advice.

The sustainability agenda can provide a very useful framework for the State Government in achieving a more coherent whole-of-government agenda. It provides a wide range of principles by which government decision-making can be considered, and a powerful vision that can appeal to the broad community. It also provides an integrative framework that addresses all the key goals for our society and its governance, while also providing important guidance for setting priorities.

Environmental Alliance

In our view, a key role of the Sustainability Policy Unit should be to provide guidance to Government agencies on how sustainability considerations can be integrated into their decision-making. This would complement the Unit's work on awareness raising and promoting best-practice. Such guidance would assist those agencies in their work with industry.

Chamber of Minerals and Energy

This section describes the proposed institutional arrangements for sustainability.

Each government portfolio has different responsibilities for implementing aspects of the triple bottom line of sustainability—environmental, social and economic. The challenge for government will be to support the integrated thinking across agencies that sustainability demands. Rather than operating within ‘silos’ to progress only the environmental, social or economic dimensions, government agencies need to work in a way that progresses all three elements concurrently.

In recognition of the need for coordinated planning and decision-making the government established Cabinet Standing Committees for Economic, Environmental, Regional and Social Policy in 2001, which has enabled coordinated consideration and development of government policy in these broad areas.

The Machinery of Government Taskforce reforms have also resulted in fewer departments and the consolidation of responsibilities and functions to minimise overlap and duplication. This has benefited sustainability thinking by integrating responsibilities that were previously separate, for example the formerly separate transport agencies are now part of the Department for Planning and Infrastructure. This provides the mechanism for better integrating transport planning with planning for sustainable urban form. Similarly, water resources management and environmental protection are now the responsibility of the Department of Environment.

No single minister or agency is currently able to provide the integrating mechanisms across government that are required for sustainability. However, the Sustainability Policy Unit within the Department of the Premier and Cabinet can undertake many functions to improve integration including:

- coordinating sustainability assessment
- assisting with capacity building
- advising agencies on how to operationalise sustainability in their own activities through the Sustainability Code of Practice for Government Agencies and a Sustainability Resource Guide (see *Embracing sustainability in government agencies*)
- coordinating across-government activity in sustainability reporting

- providing sustainability policy advice including overseeing the implementation of the State Sustainability Strategy as well as the incorporation of sustainability principles into legislation, the approvals process and the planning process, and
- providing community advice and programs on sustainability.

Other agencies also need to ensure sustainability capacity within their policy functions. This will have the advantage of enabling a network of skilled staff across government to achieve a ‘whole of government’ perspective on sustainability. The Sustainability Policy Unit will support regular communication and information exchange across this network to build the capacity for sustainability across the public sector.

A Sustainability Act is proposed as the mechanism for ensuring sustainability is embedded across government, consistent with the broad approach adopted in this Strategy. Manitoba has such an Act. In Western Australia, there has been a trend for new legislation to refer to sustainability, however there is a need for a consistent and comprehensive approach that can help define this. The Sustainability Principles from the Strategy provide this base to build the Act on. A Sustainability Act will provide these sustainability principles with a legislative base and enable them to be incorporated into relevant legislation as it is reviewed or drafted. The government will introduce procedures to ensure that sustainability is addressed whenever proposals for legislation are developed. The Act could also support the development of guidelines or codes for the incorporation of sustainability principles into the operations of relevant government agencies and in particular to support the process of State of Sustainability Reporting (see below).

The Sustainability Strategy has many elements that relate to community and regional sustainability. In order to provide advice to government on the implementation of these programs a Sustainability Roundtable will be established. It will consist of representatives from the relevant agencies, community (including local government and university research) and industry and will report to the Chairs of the Cabinet Standing Committees on Environmental, Economic, Social and Regional Policy. The Sustainability Policy Unit will support the Sustainability Roundtable.

The core functions of the Sustainability Roundtable will be to facilitate:

- the implementation of the State-Local Government Sustainability Partnership Agreement
- development of the methodology for Regional Sustainability Strategies
- community partnership projects
- contributing to global sustainability, including through overseas aid
- industry partnership projects
- State of Sustainability Reporting and
- a biennial review of the State Sustainability Strategy.

The Roundtable will establish committees to progress these initiatives as appropriate.

In short...

Vision

Institutions for sustainability are established and functioning as an essential and integral part of government operations.

Objectives

- To enable robust institutional arrangements within and across the State government to ensure sustainability is embedded into government activities.
- To enable adaptability and progressive learning on how institutional arrangements can most effectively enable sustainability to be realised.

Actions underway

- The Sustainability Policy Unit is established within the Policy Division of the Department of the Premier and Cabinet.
- The Department for Planning and Infrastructure has established a Sustainability Directorate.
- The Department of Housing and Works has a policy group with sustainability expertise.
- The Department of Fisheries has an ecologically sustainable development reference group.
- The Department of Conservation and Land Management and other departments have had commitments to sustainability within their corporate plans for some years.
- The Machinery of Government Taskforce has restructured government agencies to achieve more integrated, whole of government outcomes.

Actions

- 1.5 Establish a Sustainability Act to:
 - establish the principles of sustainability that can then be incorporated by reference into relevant legislation as it is reviewed or developed, and
 - support the development of guidelines or codes for the implementation of sustainability principles into the operations of relevant government agencies, including reporting.
- 1.6 Require the Sustainability Policy Unit to:
 - support sustainability assessment
 - assist agencies to implement the State Sustainability Strategy within their own areas of responsibility
 - monitor implementation of the State Sustainability Strategy and coordinate sustainability reporting across government, including the production of the State of Sustainability Report
 - provide general policy advice on sustainability
 - support regular communication, information exchange and capacity building in sustainability across the public sector
 - support community awareness and education programs on sustainability.

In short cont'd...

- 1.7 Establish a Sustainability Roundtable that reports to the Chairs of the Cabinet Standing Committees on Environmental, Economic, Social and Regional Policy to facilitate key community and regional actions within the State Sustainability Strategy including:
 - implementation and further development of the State-Local Government Sustainability Partnership Agreement
 - development of the methodology for Regional Sustainability Strategies
 - contributing to global sustainability, including through overseas aid
 - community partnership projects
 - industry partnership projects
 - State of Sustainability Reporting and
 - a biennial review of the State Sustainability Strategy.

The Sustainability Roundtable will be broadly representative of key skills in sustainability in the community and industry and will also have government agency representation. Subcommittees to address particular areas of responsibility will be established as necessary.

- 1.8 Establish a network of skilled staff across government to support sustainability capacity building and contribute to integration.

Global opportunities

The establishment of sustainability in a proper institutional framework and the experience generated will become a major, globally innovative process. The potential to use this in capacity building within developing countries could be greater than the processes that have been developed over the past 20 years in environmental protection.

Further information

The Machinery of Government Taskforce 2001, *Government Structures for Better Results*, The Report of the Taskforce Established to Review the Machinery of Western Australia's Government, Ministry of the Premier and Cabinet, Perth.

> EMBRACING SUSTAINABILITY IN GOVERNMENT AGENCIES

Government needs to lead by example on workplace sustainability and a range of agency sustainability innovations will be implemented.

Government agencies should at least minimise their own ecological footprint, by adopting eco-efficient office operations, critically reviewing transport and travel and inclusion of environment and sustainability criteria in government purchasing and contracting. The government cannot urge sustainability on the rest of the community without putting its own house in order. Leadership must be provided in the first instance by the Premier, Geoff Gallop, and by the relevant Ministers in the departments and agencies under their control.

Environmental Alliance

Perth Zoo has a vision for becoming the World's first "Sustainable Zoo", consolidating Perth Zoo as a world leader and providing the Western Australian public with a leading cultural institution, that educates, entertains and undertakes vital conservation work and breeding programs. Perth Zoo plans to achieve a vision for a sustainable approach to its own management and development using environmental management systems, water recycling, waste re-use, conservation and community education and maintaining a focus on sustainable eco-systems within Zoo enclosures.

Perth Zoo

The Department has also sought to move towards sustainability in its operations. It has for many years established renewable energy systems in isolated locations wherever practicable, and has more recently committed to purchasing a portion of its electricity from renewable sources. Paper, plastic and metal recycling programs are active in most Departmental locations. These activities will be coordinated and enhanced through a "Cleaner Production Plan" which is currently in development.

Department of Conservation and Land Management

Part of the government's leadership role is to ensure that its agencies embrace and pursue sustainability principles, supporting a transition to a more sustainable future through its considerable influence in setting policies, making decisions, purchasing and procurement and managing its own activities to positively support sustainability. This sends clear signals to the community and businesses that the government is 'walking its own talk' and 'putting its house in order'.

Many jurisdictions around the world have responded to the sustainability imperative through initiatives that support the 'greening of government'. Government agencies in Western Australia have made some progress in workplace sustainability. Some agencies have already begun a comprehensive response to this issue through the adoption of an Eco-Office Program or through becoming signatories to the Western Australian Sustainable Industry Group's Cleaner Production Statement. Box 15 describes the Perth Zoo's efforts to become the world's first sustainable zoo.

The implementation of sustainability across the public sector requires a holistic and well-planned approach to ensure that this is undertaken comprehensively. At a whole-of-government level, this requires government planning to be consistent with sustainability principles. The government's State Strategic Planning Framework for the public sector will therefore incorporate sustainability as a fundamental principle, particularly through high-level goals against the triple bottom line and governance. This will ensure that all government activity is directed towards achieving a sustainable future for Western Australia. In addition, the annual reporting framework of government will be reviewed to better reflect the triple bottom line.

In its Environment Policy, the government committed to developing a Code of Conduct for policy-making and management practices that would enable sustainability principles and practices to be incorporated into all aspects of government decision-making.

A Draft Sustainability Code of Practice for Government Agencies is being developed and will be finalised in consultation with Government agencies and other stakeholders. The Code of Practice will ensure that activity at the agency level is directed towards supporting sustainability, including through:

- applying sustainability principles in the discharge of agency functions
- ensuring agencies' day-to-day activities are sustainable
- supporting sustainability assessment of legislation, policies, agreements, Cabinet submissions and projects, and
- monitoring and reporting on agency achievements and commitments to sustainability.

BOX 15 PERTH ZOO: THE WORLD'S FIRST SUSTAINABLE ZOO

It is Perth Zoo's vision to become the world's first sustainable zoo. It is setting an example for other recreation and tourism venues by developing management strategies that integrate environmental, economic and social sustainability and demonstrate possibilities for the future. Being the most popular tourist and family destination in the state, with approximately 550,000 visitors annually, the Perth Zoo aims to use its success and popularity to increase support for world conservation, sound environmental practices, community education and sustainable business practices.

The Zoo is developing a sustainability management plan in conjunction with Curtin University's Centre for Cleaner Production. The sustainability plan for the zoo recognises the importance of research, continual improvement and the establishment of long-term business and sponsorship relationships. These relationships involve organizations that similarly demonstrate an ongoing commitment to the environment and conservation ethos.

Perth Zoo is limited by space and funding. Therefore its sustainability strategy must embrace these challenges as opportunities to increase the economic and ecological efficiency of its operations. Strategies have so far involved: an Environmental Management System; energy and water conservation; alternative energy sources and solar design; onsite chipping and composting; the use of recycled paper in offices and shredded paper for animal bedding; the introduction of public recycling stations; the encouragement of electronic communication when possible; and an Environmental Management Committee chaired by the CEO. The Perth Zoo has found that implementing these strategies not only provides social and environmental benefits they are also economically efficient.

In leading by example the morale of the zoo staff is increased and its role in education is enriched. The Zoo has a role to inform the public about global biodiversity protection and research on endangered species and their habitats. The impact of this on local families, school groups and tourists is increased when it is clear that the zoo is 'walking the talk' on global sustainability issues in general. The Zoo's Homestead exhibit provides an environmental showcase for the public. Information is provided on recycling, waste reduction and reuse, permaculture, alternative energy sources and solar passive design principles. The Zoo believes this is an effective way of communicating actions that individual householders can take to minimise their impact on the environment.

The implementation of a sustainability management plan focusing on community education and conservation has given the Perth Zoo great potential as a community and industry leader in sound environmental management and business sustainability.

Source: Amber Hadley and Elyse Casserly

Agencies will develop a Sustainability Action Plan to respond to the Sustainability Code of Practice and comprehensively address how sustainability will be pursued. This will ensure the operationalisation of sustainability within agencies beyond the State Sustainability Strategy. It will also allow flexibility and an evolutionary approach by enabling agencies to determine what sustainability means for them in the context of their statutory responsibilities, operating environments and customers. At the same time, it will also ensure consistency in important government-wide policies for procurement and energy efficiency, for example. Box 16 summarises the main elements of a Sustainability Action Plan. Agencies will also report on the implementation of the Sustainability Action Plan in their Annual Reports and the Sustainability Policy Unit will produce a State of Sustainability Report integrating this across government.

The Sustainability Policy Unit will prepare a Sustainability Resource Guide for agencies to assist the development of Sustainability Action Plans. The unit will also review draft plans.

BOX 16 GOVERNMENT AGENCIES' SUSTAINABILITY ACTION PLANS

Sustainability Action Plans will be developed in consultation with key stakeholders to:

- address issues outlined within the State Sustainability Strategy of relevance to the agency
- identify any agreed actions for which they are primarily responsible arising from the State Sustainability Strategy
- describe how the agency will shift to more sustainable day-to-day management of their operations, including the adoption of existing government-wide programs and policies for procurement as well as targets for energy use, water use, waste reduction and recycling, vehicle use, travel reduction and other relevant targets
- set out a community engagement plan
- set out proposals for action and improvement over a three year period (2003 - 2006)
- be incorporated into strategic and business plans as these plans are reviewed and/or prepared
- define the measures that agencies will use to report on progress towards sustainability.

Applying sustainability principles

Agencies will review and amend their existing strategic and operational plans to:

- incorporate sustainability principles
- reflect any commitments they are responsible for under the State Sustainability Strategy
- adopt additional measures that are available to implement sustainability principles in agency operations.

Additional measures to implement sustainability principles will vary between agencies. For example:

- an agency responsible for making decisions concerning the use of natural resources should specify how sustainability principles will be applied in making those decisions
- an agency that plans for transport infrastructure should specify that the full costs, including infrastructure, environmental and safety costs, should be taken into account in developing those plans (see Table 3, the Department for Planning and Infrastructure's proposed criteria for prioritisation of key projects) and
- an agency that assists particular industries should set out strategies for using that assistance to promote sustainability in that industry.

Ensuring agencies' day-to-day activities are sustainable

In its Environment Policy the government committed to introducing annual environmental performance reporting requirements for all government agencies in areas such as energy consumption, waste disposal, vehicle fuel efficiency and recycling; as well as requiring departments and agencies to set targets for waste reduction and recycling. These were to be audited according to the principles of sustainability and included in Annual Reports.

Through the Sustainability Action Plan agencies will be required to respond to government-wide targets and initiatives including for the following areas:

- procurement
- waste reduction and recycling
- energy use
- water use
- travel, vehicle use, fuels efficiency
- occupational health and safety, and
- public engagement and social responsibility.

Existing government initiatives, requirements and targets in these areas are summarised in Box 17.

Assistance for agencies is available in some areas, for example through the Sustainable Energy Development Office's Energy Smart Government Program that provides funding for agencies to invest in energy-saving activities, and assistance on water conservation is provided through the Water Corporation. A new common-use contract has also been established to provide a panel of consultants who can conduct waste audits for agencies.

BOX 17 GOVERNMENT WIDE PROGRAMS AND COMMITMENTS FOR SUSTAINABILITY

Waste reduction and recycling

The government requires its agencies to meet the Waste 2020 target of towards zero waste by 2020.

Energy use

As part of the Energy Smart Government Program, the government requires agencies to achieve 5%, 6%, 7%, 8% and 12% energy savings per year for the years 2002-3 to 2006-7. Building on the present Financing Energy Efficiency Program, the new Energy Smart Government Program supported by the Sustainable Energy Development Office will enable agency offices to be audited and refitted for energy conservation. The government will undertake to purchase renewable energy for an increasing proportion of electricity requirements in the most cost-effective manner.

Building design

Government building and landscaping will incorporate the principles of solar orientation, energy efficiency, waste recycling, water use efficiency, accessible design and other sustainability innovations.

Water use

Government properties will demonstrate best practice in water use efficiency through water wise gardens, bores, rainwater tanks, grey water recycling and water efficient appliances (see *Our water future*).

Vehicle packages, fuels, reduced travel and vehicle use

The number of cars in the government vehicle fleet will continue to be reviewed to ensure these remain at the optimum level and are reduced where possible, and options will be available for senior public servants to include provisions for taking public transport in lieu of vehicles.

Agencies will reduce vehicle use by promoting travel alternatives, improving workplace end of trip facilities and managing car parking. The TravelSmart Workplace program assists agencies to survey staff travel, audit workplace facilities and policies and develop a green transport plan. The plan identifies measures to minimise unnecessary car travel and make it easier for staff and visitors to walk, cycle or use public transport, carpool or teleaccess. (See *Integrating landuse and balanced transport*).

The government will adopt a revised government vehicle fleet environmental policy to increase the use of four-cylinder vehicles and significantly reduce fuel consumption (and CO₂ emissions) per kilometre and continue the use of LPG vehicles where appropriate. Tenders will be called for transport emissions offsets in 2004/5.

Gas, hydrogen and biodiesel will be actively used in buses to demonstrate the applicability of these fuels for heavy vehicles.

Government centres will develop Internet conferencing facilities to ensure that meeting travel is minimised.

Occupational health and safety

Health and safety in the workplace improves environmental, economic and social outcomes in government agencies.

Public engagement

The government will ensure transparent, participatory and engaging public processes are embedded in agency activity as set out in *Consulting Citizens: A Resource Guide* and *Consulting Citizens: Planning for Success*.

Social responsibility

The government will require agencies to examine strategies for community-building and social responsibility involving their own employees. This will include cross-cultural awareness training, gender assessments, a community focus through employee-adopted community programs and place-based integration of services across government.

Government purchasing

Each year the Western Australian Government spends around \$5 billion on goods and services, construction and building-related services. This is a significant contribution to Western Australia’s economy. Clearly, government purchasing can be a powerful driver to support more sustainable behaviours as well as encouraging this in businesses that supply goods and services to government.

Government agencies are significant resource consumers in their own right. They are required to include sustainability considerations in their purchasing. To support this outcome, the Premier established an Interdepartmental Committee on Sustainability Procurement in 2001 to develop a comprehensive approach to government buying.

The Committee recognises that sustainability purchasing needs to address more than the lowest price offered, that a single policy alone will not deliver the desired outcomes and that government buying is diverse and can be very complex. It also acknowledges that approximately 80% of government expenditure is for purchasing services rather than goods.

While existing government and State Supply Commission policies provide a firm foundation for sustainability purchasing, an integrated approach to the triple bottom line is not currently demonstrated.

The development of a Sustainability Purchasing Policy framework recognises that government buying can have a positive impact on meeting the needs of current and future generations through environmental protection, social advancement and economic prosperity.

The Sustainability Purchasing Policy consists of:

- a policy statement that makes Directors General accountable for ensuring their agencies’ buying supports sustainability
- guidelines and checklists to support sustainability purchasing for specific product and service categories, which will be further developed over time, and
- an implementation plan supporting training and awareness for both government agencies and suppliers.

The Government’s Sustainability Purchasing Policy framework is a comprehensive approach to achieving progressive change across all purchasing in all government agencies over time. However, this approach will necessarily be phased in and involve learning-by-doing within government and with suppliers to government. The process will begin with selected areas of government purchasing including consumable supplies such as paper, as well as construction of new government infrastructure.

The State Supply Commission will work with the Procurement Leaders Council to ensure that consideration is given to sustainability purchasing across the public sector. The State Supply Commission will administer the Sustainability Purchasing Policy.

Supporting sustainability assessment of legislation, policies, agreements, Cabinet submissions and projects

Relevant government agencies will support sustainability assessment as described in the section on *Sustainability assessment*.

Public engagement

Public consultation and engagement is an important principle of sustainability and agencies are expected to undertake this as part of their core business. Each agency could utilise *Consulting Citizens: A Resource Guide* and *Consulting Citizens: Planning for Success* developed by the Citizens and Civics Unit, Department of the Premier and Cabinet, to facilitate public engagement.

The process of engagement will also be assisted by the WA Collaboration, a grouping of civic society in Western Australia, involving conservation groups, unions, social services, churches, youth and other interests. Lotterywest provided funding to the WA Collaboration to contribute to the State Sustainability Strategy and its involvement will be sought where appropriate.

Monitoring and reporting on agency achievements and commitments to sustainability

An increasing number of businesses and government agencies around the world are preparing triple bottom line reports and working to determine how best to report their social, economic and environmental activities. Within Western Australia, Rio Tinto, the Water Corporation, WMC, BP Australia and Alcoa have all recently prepared a triple bottom line or sustainability report.

The State Strategic Planning Framework for the Public Sector will inform the structure of future budgets and include environmental, social and economic goals for government. The annual reporting framework for government agencies will be reviewed to incorporate sustainability reporting, including through key performance indicators.

The government will also report publicly on the implementation of the State Sustainability Strategy through the State of Sustainability Report.

In short...

Vision

Western Australian government agencies are recognised nationally and internationally for their sustainability innovations.

Objective

Ensure government agencies are leading by example in pursuing sustainability through adopting sustainability in their planning, decision-making, everyday activities and reporting.

Actions underway

- Some agencies have adopted a dedicated Eco-Office Program, developed an Environmental Management Plan or are signatories to the Western Australian Sustainable Industries Group Cleaner Production Statement in order to minimise the environmental impact of their activities.
- The Armadale Redevelopment Authority has released its *Implementation Strategy for Sustainability*.
- The Sustainable Energy Development Office promotes the Energy Smart Government Program to encourage the adoption of energy efficient activities within government agencies.
- The State Supply Commission’s Supporting other Government Directions Policy encourages agencies intending to purchase a good to consider energy efficient, recycled and recyclable goods.
- The Perth Zoo has adopted a comprehensive environmental management program and aims to be the first sustainable zoo of the 21st century.
- The Premier established an Interdepartmental Committee on Sustainability Procurement to develop a comprehensive policy on this issue.
- The Department of Fisheries is developing a process to assess all Western Australian fisheries in terms of ecologically sustainable development and to report to Environment Australia and the Western Australian community.

In short cont'd...

- To reduce car trips to and from their workplaces some agencies are implementing green transport plans through the TravelSmart Workplace Program. The plans promote healthy, environmentally friendly travel choices by staff and clients.

Actions

- 1.9 Develop a State Strategic Planning Framework for the Public Sector that reflects sustainability and the triple bottom line.
- 1.10 Incorporate sustainability principles and practices based on the Sustainability Act into relevant legislation as it is reviewed or drafted.
- 1.11 Finalise a Sustainability Code of Practice for Government Agencies to guide planning, managing, reporting on and operationalising sustainability after trialling a Draft Code with selected agencies and in consultation with community and industry stakeholders.
- 1.12 Review the annual reporting framework for government agencies and incorporate sustainability reporting, including through key performance indicators.
- 1.13 In response to the Sustainability Code of Practice for Government Agencies, require agencies to create Sustainability Action Plans that reflect their commitments and response to sustainability. A Sustainability Resource Guide will be developed to assist agencies in this process.
- 1.14 Implement a whole of government Sustainability Purchasing Policy framework through:
 - developing sustainability purchasing guidelines
 - reviewing the State Supply Commission Risk Management Policy to ensure that sustainability procurement is directly addressed in all government agency Procurement Plans.
 - ensuring that new whole of government contracts are consistent with the Sustainability Purchasing Policy, and
 - ensuring that government agencies and suppliers are provided with information about sustainability purchasing principles and practices, for example through the development of case studies in best practice, information sessions for purchasing officers and suppliers to government and, where appropriate, trade events and exhibits to promote more sustainable products and services to government.
- 1.15 Apply the Sustainable Purchasing Policy to the following priority areas:
 - consumable office supplies (paper, envelopes and stationery)
 - personal computers including printer cartridges
 - photocopiers
 - vehicles and fuels (including seeking offsets for greenhouse emissions)
 - design and construction of government buildings.
- 1.16 Progressively implement the Sustainability Purchasing Policy to ensure continuous improvement in the application of the Policy including an independent review.
- 1.17 Work with local government to identify opportunities for State and local government purchasing to jointly support sustainability.

In short cont'd...

Global opportunities

Achieving sustainability in government is one of the key challenges in the global sustainability agenda. For example, there are large World Bank projects on these issues. Agencies and consultants developing this expertise will be able to participate in this market.

Further information

Aitken, L 2002, *Towards a Sustainable Procurement Strategy*, sustainability background paper, State Sustainability Strategy CD-ROM, Department of the Premier and Cabinet, Perth.

Mastny, L 2003, *Purchasing Power: Harnessing Institutional Procurement for People and the Planet*, Worldwatch Paper 166, Worldwatch Institute, Washington DC.

Waller, S 2002, 'Walking the Talk': *workplace sustainability policy, program and actions within the State government of Western Australia*, sustainability background paper, State Sustainability Strategy CD-ROM, Department of the Premier and Cabinet, Perth.



The Department of Land Information has embarked on an ambitious program to achieve energy saving at its office in Midland through the EnergySmart Government Program. Here A/Chief Executive Grahame Searle and Project Coordinator, John Radalj consider the ultrasonic occupancy detector which will be installed in the building to control office lighting.

Source: Department of Land Information

> PARTNERSHIPS FOR ACTION

Implementation of sustainability will require partnerships with a range of key stakeholders. Local government in particular will be a key partner for implementing sustainability.

Individual governments, just like individual companies and individual people, cannot deliver sustainability on their own—global approaches are required as well as local approaches, and partnership is essential.

BP Australia Ltd

Local governments around the world and in Australia have taken sustainability seriously for a long time. Chapter 28 of Agenda 21 considered the role of local authorities in supporting sustainability. This initiative has become known as Local Agenda 21 and has provided the framework and driver for much action by local government around the world.

The Western Australian Local Government Association indicates that some 6,416 local authorities in 113 countries have either made a formal commitment to Local Agenda 21 or are actively undertaking the process. At the end of 2000, over seventy councils in Australia were either starting or had developed a Local Agenda 21 program. To date, fifteen Western Australian local governments have formally committed to a Local Agenda 21 process including the Cities of Fremantle, Armadale, Mandurah, Nedlands, Subiaco, Stirling, Joondalup and Cockburn, the Shire of Serpentine-Jarrahdale and the Town of Cottesloe. Many local governments have also been actively involved in initiatives like Cities for Climate Protection and the Perth Biodiversity Project.

The Western Australian Local Government Association provided a detailed submission setting out how local government needs to be involved in every aspect of the State Sustainability Strategy. The association proposed:

‘... that a Sustainability Partnership [be] formalised (under the umbrella of the more general State-Local Partnership) at the time the Strategy is finalised; and in the meantime a Roundtable is established as an embryonic Advisory Council to progress the Strategy formulation.’

Given the complexity of the issues involved and the Western Australian Government’s intention to work closely with local government on a range of issues, it was desirable that opportunities to jointly pursue sustainability were considered comprehensively by State and local governments working together. Therefore, during the process of public consultation on the draft State Sustainability Strategy, the government established a Roundtable with the Western Australian Local Government Association (representing local government). This effort was directed towards creating a State-Local Government Common Sustainability Framework consisting of common principles, goals, approaches and programs, building on the sustainability framework outlined in this strategy. This approach is unique in Australia.

The framework will address institutional accountability, alignment of State and local government policy directions and processes on sustainability, regional groupings of local government for responsibilities in different areas (see below), and common State-local government methodologies and resources.

Local governments have expressed the view that some large regional projects do not adequately address local social and economic considerations. The Department of Industry and Resources is currently involved in developing a protocol between the Department and relevant local authorities for future State Agreements and resource projects of significance to the State. The Protocol is being jointly developed by the department (on behalf of the Minister for State Development), the Western Australian Local Government Association (WALGA) and the Department of Local Government and Regional Development (on behalf of the Minister for Local Government and Regional

Development). The Protocol recognises the complexity of developing major resources projects and the effects such projects may have on local communities, the wider region and the State as a whole. The purpose of the Protocol is to establish a broad set of principles and procedures that will facilitate communication and discussion between the Department of Industry and Resources relevant local authorities in regard to projects of significance to the State, future State Agreements and variations to existing State Agreements.

A key question will be how to develop planning legislation to enable sustainability principles and processes to be incorporated into statutory processes at the local level. This will include exploring how Regional Councils could be used to address sustainability issues, and the use of various statutory powers by agencies and local governments directly for sustainability outcomes for natural resource management, settlement and community issues.

Regional Councils can be established with the powers of a local government under the Local Government Act. These were originally set up to manage waste as it was obvious that each local authority (especially in the city) could not have their own landfill site nor could they establish a recycling centre in each locality. Regional partnerships were required.

The same issue now confronts local government on many of the sustainability issues outlined in this report: natural resource management issues (especially landcare, drainage and coastal issues), settlement issues (especially transport, growth management, air quality, waste, renewable energy location and heritage) and community issues (especially location of community services, social housing, health and education).

There is a real need for local government to establish regional partnerships with the State government on these issues while at the same time maintaining local identities and close links so vital to the implementation of any policy. The main link will be at the professional officer level where capacities are greatly expanded through regionalising. Political representation on Regional Councils can ensure that local democratic processes are extended into these areas of government to provide the necessary local and regional flavour. This will be achieved in incremental steps to ensure regional capacity building and ownership is in place. Many issues will also be managed by agencies or by local government directly, for example the City of Swan and the City of Gosnells have sustainability projects that are partnerships with the State Government (see *Sustainability and settlements*).

There are already three good models of Regional Councils (which made substantial submissions to the State Sustainability Strategy): the Eastern Metropolitan Region of Councils (representing six Councils to the east of Perth); the North East Wheatbelt Regional Council (NEWROC, which represents seven councils in the Wheatbelt); and the Pilbara Regional Council which is a statutory body for local governments in the Pilbara. Regional Councils have been able to develop the staff and capacity to make significant contributions on policies for sustainability.

The process for implementation of the State Sustainability Strategy through the Sustainability Roundtable requires significant input from local government.

The Roundtable will be broadly representative of key skills in sustainability in the community and industry and will have government agency representation as well. Subcommittees to cover particular areas of responsibility will be established as needed. In particular the Roundtable will be able to facilitate Partnership Projects between local and State government, e.g. the Maddington Kenwick Sustainable Communities Initiative with the City of Gosnells and the Community Planning Strategy with the City of Swan.

The Strategy also proposes additional partnerships involving civil society, research organisations and industry to undertake further work in key areas important to the different sectors, for example:

- regional sustainability
- research and development for sustainability
- sustainability scorecard
- sustainable mining and petroleum production
- corporate social responsibility
- eco-efficiency and industrial ecology, and
- industry sustainability covenants.

Each of these partnerships will be an inclusive process to try and achieve creative and innovative solutions through dialogue and involve representation from the community. These partnerships will be described in more detail in other parts of the Strategy.

In short...

Vision

State and local governments are acting in unison to realise a sustainable future for the Western Australian community. Other partnerships with universities, civil society and industry are able to creatively resolve sustainability issues.

Objectives

- Establish partnerships involving civil society, industry, local government and research organisations to progress, finalise and implement the State Sustainability Strategy.
- Achieve integrated State-local government approaches to sustainability and align State and local government policy and processes with sustainability principles.

Actions underway

- Fifteen Western Australian local governments have formally committed to a Local Agenda 21 process including the Cities of Fremantle, Armadale, Mandurah, Nedlands, Subiaco, Stirling, Joondalup and Cockburn, the Shire of Serpentine-Jarrahdale and the Town of Cottesloe.
- Some 67% of Western Australia's population live in a local government area involved with the Cities for Climate Protection program.
- Some partnerships with government for sustainability already exist, for example the WA Sustainable Industry Group.

Actions

- 1.18 Through the Sustainability Roundtable implement the State-Local Government Sustainability Partnership Agreement and create further State-Local Government partnerships to promote sustainability at community and regional levels.
- 1.19 Through the Sustainability Roundtable examine the appropriate scale for sustainability actions including the role of Regional Councils of local government in supporting sustainability, the implementation by individual local governments and the role of the State government in enabling local governments to fulfill these roles.

In short cont'd...

1.20 Through the Sustainability Roundtable, work with the WA Collaboration and industry stakeholders to implement the State Sustainability Strategy through partnership processes.

1.21 Develop a protocol that establishes broad principles and procedures to facilitate communication and discussion between the Department of Industry and Resources and relevant local governments in regard to projects of significance to the State, future State Agreements and variations to existing State Agreements.

Global opportunities

Agencies, local governments, industry and civil society can participate in the growing international market for sharing the insights and innovations from places like Western Australia that develop unique partnerships for sustainability.

Further information

Alderson, G and Turner, S 2002, *Moving Towards Sustainability in the City of Gosnells: A Case Study of Local Government Addressing the Sustainability Agenda*, <http://www.sustainability.dpc.wa.gov.au/CaseStudies/gosnells/gosnells.htm>

Leigh, C 2002, *Local Government and Sustainability: How the Western Australian Local Government Association is assisting local councils to adapt to the new agenda of sustainability*, <http://www.sustainability.dpc.wa.gov.au/CaseStudies/WALGA/walga.htm>

Menage, X 2002, *Working Towards Sustainability: Local Government Greenhouse Action through the Cities for Climate Protection Campaign*, <http://www.sustainability.dpc.wa.gov.au/CaseStudies/Greenhouse%20Action/greenhouseaction.htm>

Zelev, P 2002, *Local Agenda 21 Applied Locally in Western Australia: the City of Cockburn Case Study February, 2002*, <http://www.sustainability.dpc.wa.gov.au/CaseStudies/la21/localagenda21.htm>



The Premier of Western Australia, Hon Dr Geoff Gallop MLA, with members of the State Local Government Sustainability Roundtable at the signing of a partnership agreement to develop a State Local Government Sustainability Partnership Agreement.

L-R Ms Cheryl Gwillam, Director General, Department of Local Government and Regional Development; Mr Cliff Frewing, President of Local Government Managers Australia (WA); Premier Gallop; Mr John Hyde MLA Member for Perth (Chair); Clive Robertson, President of the Western Australian Local Government Association; Professor Peter Newman, Director, Sustainability Policy Unit, Department of the Premier and Cabinet and Ms Ricky Burges, Chief Executive Officer, Western Australian Local Government Association.

Source: Department of Agriculture

> PLANNING FOR SUSTAINABILITY

Sustainability represents a new emphasis in traditional planning practice. The statutory planning tools to prepare, implement and review policies and plans offer a powerful mechanism to apply the principles of sustainability.

Western Australia is fortunate in that it has an established planning system administered by agencies and institutions with considerable experience in dealing with a range of development issues and community views. It provides significant opportunity through strategies, policies, regulation and special projects to influence the direction and type of growth and development throughout the State and demonstrate commitment to sustainability principles.

Royal Australian Planning Institute

The EMRC provides a successful model of a partnership by its member Councils to enable a strategic long-term focus that is both environmentally and culturally sensitive to the Region. The Regional Environmental Strategy 2000 (RES) is a major strategic initiative undertaken by the EMRC to protect and manage the Region's natural environment and resources. The RES also identifies issues and defines future actions aimed at achieving sustainability and to value and preserve the environmental, social and economic aspects that make the Region unique.

Eastern Metropolitan Regional Council

The core process in sustainability consists of:

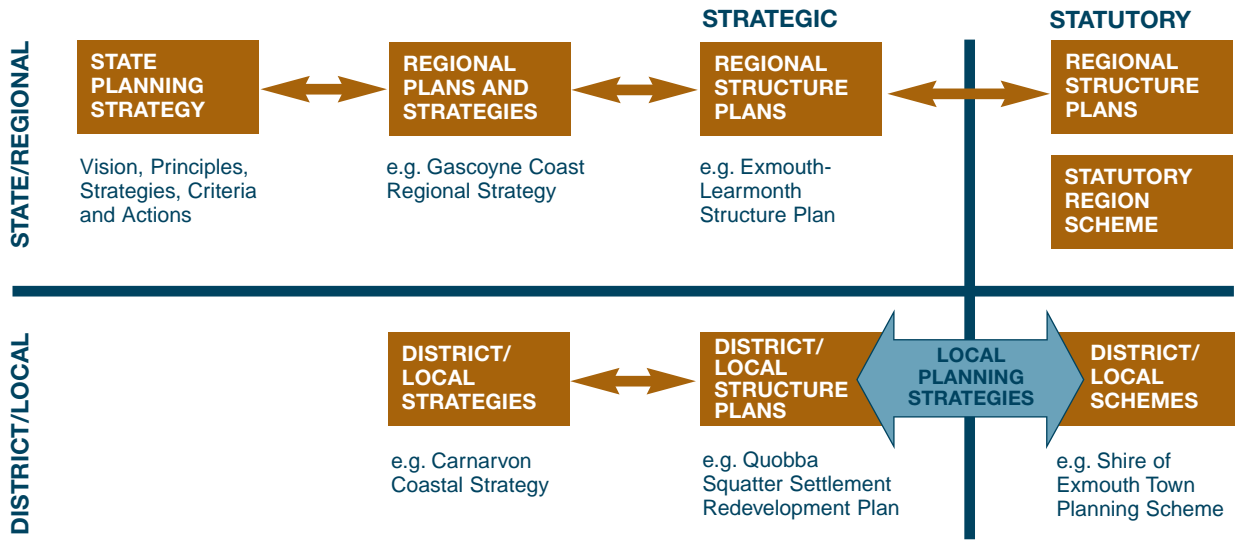
- finding a strategic vision of the future which is the desired outcome for a majority of the community, based on common good principles
- setting out practical steps that integrate economic, social and environmental outcomes relevant to that vision and which can be taken through every element of development, and
- incorporating these in statutory processes and procedures where appropriate to make a significant contribution to the implementation of the desired Strategy.

This is also the process that has traditionally been called ‘town and country planning’. The town planning profession arose out of health and transport problems at the turn of the 19th century and has provided an orderly statutory process for achieving social, environmental and economic goals for over a hundred years, in all parts of the world including Western Australia.

Figure 3 shows the major elements of Western Australia’s strategic and statutory planning system. Each part of this hierarchy of planning measures has a contribution to make to sustainability. The review of the State Planning Strategy will include the incorporation of Sustainability Principles, consistent with the State Sustainability Strategy and planning legislation review (see below). Each part of the planning hierarchy needs to incorporate and apply the principles of sustainability through developing and applying criteria for planning and assessment appropriate for each level in the hierarchy. For example, the application of BASIX (a NSW web-based planning tool focussed on residential development and buildings) in Western Australia presents a good starting point to determine how sustainability can be embedded into this State’s planning and development approval systems.

Local government is a major stakeholder in all levels of planning. Local Town Planning Schemes are an important mechanism for addressing sustainability issues in the statutory process, as well as Metropolitan Region Schemes and Regional Plans. However the vision for tackling sustainability issues has mostly come from other processes. Local governments have been preparing Local Agenda 21 Plans and have participated in the international program Cities for Climate Protection. Natural resource management groups have had close links to local government, and much community development occurs through local government. Yet little of this is incorporated into the statutory planning process despite it having significant implications for land use (and transport) planning.

Figure 3 Hierarchy of planning strategies, policies, plans and schemes



Source: Department for Planning and Infrastructure

Another planning instrument created under the *Town Planning and Development Act 1928*, the Statement of Planning Policy, has great potential to be used more widely to promote sustainability. In particular, it has the potential to be used as a whole of government document, developed in accordance with sustainability principles, to integrate land use and management requirements for specified areas of the State. Current Statements of Planning Policy being developed or already developed by the Western Australian Planning Commission cover environment and natural resources, sustainable settlements, economy and employment, transport and infrastructure, and regional planning. The classification system for existing and proposed Statements of Planning Policy is provided at Figure 4.

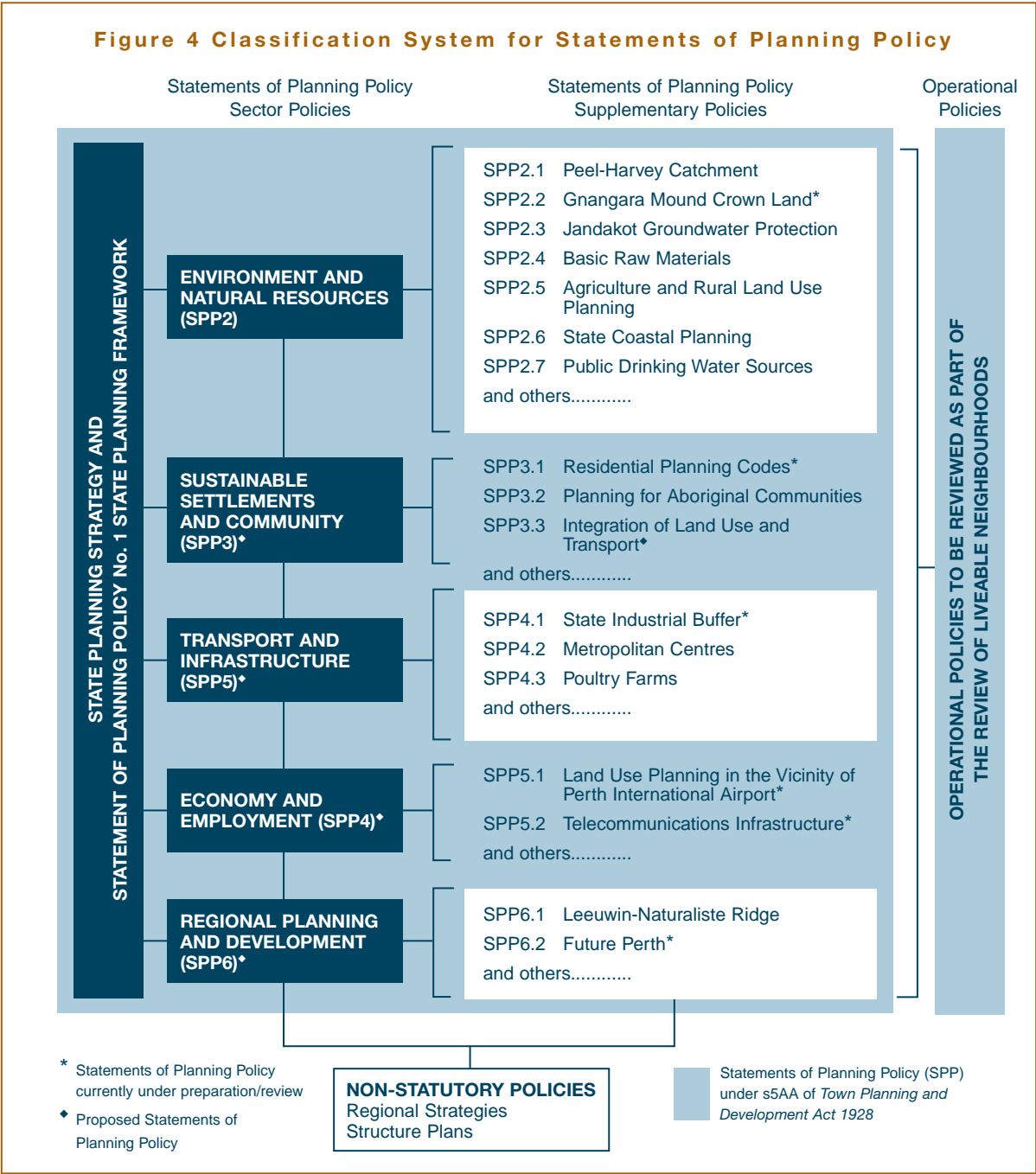
The State Sustainability Strategy proposes a number of ways that planning processes can be used to support sustainability, particularly through Statements of Planning Policy by local governments and by Regional Councils of local governments that focus on the sustainability issues confronting them. The use of developmental control planning powers in local government in order to assist sustainability will be pursued through the Sustainability Scorecard approach (see *Sustainability and settlements*).

Planning legislation is currently being reviewed to consolidate a number of provisions and to more closely integrate sustainability into the planning system. Proposals include:

- including the promotion of sustainable land use and development as a fundamental and underlying purpose of the planning legislation
- increasing the focus of the Western Australian Planning Commission on sustainability issues by:
 - expanding the functions of the Western Australian Planning Commission to include advising the Minister on the coordination and promotion of sustainable land use and transport and land development in the State, and
 - expanding the membership of the Western Australian Planning Commission to include the chief executives of the Department of Industry and Resources and Department of Housing and Works to provided added expertise on economic and social considerations to be taken into account in planning decision-making,
- providing that Town Planning Schemes can deal with any matter for achieving any of the purposes of the Act, including promoting sustainable land use and development.

The Western Australian Planning Commission and Department for Planning and Infrastructure, therefore, are well placed to take a central role in delivering sustainable outcomes. In order to coordinate and facilitate this process a Sustainability Directorate has been formed in the Department for Planning and Infrastructure and a Standing Committee of the Western Australian Planning Commission will be established to deal with Sustainability and Development Assessment.

Figure 4 Classification System for Statements of Planning Policy



In short cont'd...

- Develop Statements of Planning Policy on the sustainable planning, provision and maintenance of transport and infrastructure, the integration of land use and transport and the maintenance of the freight network.

Actions underway

- Longer term planning processes, such as the State Planning Strategy, have incorporated triple bottom line approaches.
- Specific projects such as the Freight Network Review and the Perth City Rail Access Committee on the Southern Rail have used sustainability techniques.
- Some Regional Councils of local government have demonstrated regional sustainability planning.

Actions

- 1.22 Create a Standing Committee of the Western Australian Planning Commission to deal with sustainability and development assessment and to advise on methodology for, and coordinate the implementation of, sustainability through the planning system in association with the Sustainability Roundtable.
- 1.23 Develop and trial a Sustainability Scorecard through the Western Australian Planning Commission's Sustainability and Development Assessment Committee for application through the Model Scheme Text in local Town Planning Schemes.
- 1.24 Through the Natural Resource Management Council, the Sustainability Roundtable and the Sustainability and Development Assessment Committee of the Western Australian Planning Commission, support the increased involvement of local government in planning for natural resource management, including issues of agricultural sustainability, particularly regional drainage, biodiversity conservation, regional revegetation programs, water quality and soil acidity.
- 1.25 Establish a Sustainability Directorate within the Department for Planning and Infrastructure to assist in the implementation of new initiatives in the State Sustainability Strategy relating to planning.
- 1.26 Develop Statements of Planning Policy on the sustainable planning, provision and maintenance of transport and infrastructure, the integration of land use and transport and the maintenance of the freight network.

Global opportunities

Planning professionals from Western Australia are already in demand for global development projects in the Asia Pacific Region. Town planning is established worldwide but rarely has it been applied in its full capacity to solving sustainability issues. If Western Australia can demonstrate this then planning professionals and sustainability professionals involved will have many global opportunities to pass on their expertise and experience.

Further information

Western Australian Planning Commission,
<http://www.planning.wa.gov.au/>

In short...

Vision

Planning provides the processes and procedures to create regional and local sustainability visions and triple bottom line actions to achieve these visions.

Objectives

- Better incorporate sustainability principles into statutory planning, especially integrated land use and transport planning.
- Identify opportunities through planning processes and procedures to implement the State Sustainability Strategy.
- More effectively involve local government in sustainability planning.

> SUSTAINABILITY IN THE REGIONS

Sustainability means most when it is applied at a regional scale.

Regions need to be proactive in their creation of a sustainable future. This is a significant challenge for regions in decline. Demographic, service and employment issues that many regions are experiencing are intimately related to economic and ecological change. The ability of regional communities to care for their natural environments is dependent on economic and social wellbeing.

R Armstrong

In order to achieve a transition to sustainability and permit strategic planning for sustainability, it will be important to have a clear understanding of the state of the social, economic and cultural environments in regional Western Australia. The WAM, with its knowledge resource - environmental, historical and cultural - and its museums in key regions (Albany, Geraldton and Kalgoorlie), is well placed to play a key role in this process....It is intended that MuseumLink will facilitate the engagement of regional communities with important societal issues such as sustainability, and thus empower them to better participate in the dialogue about their future.

WA Museum

Belonging requires a sense of place, a home place where persons can be secure, where meaning and well-being can be enjoyed without pressure or coercion,,, a sense of place is as much a function of the nature of the places themselves as it is of human activity.

G Lilburne 1989, *A Sense of Place: A Christian Theology of Land*, Abingdon, Nashville, pages 25 and 28

The sheer size of Western Australia means that there is enormous variation in environments, economies and communities. At the regional scale, however, the natural environment becomes more defined and the regional variation in land, water and vegetation less distinct. Regions are a useful scale to plan for environmental and natural resource management as seen in the emergence of regional natural resource management groups and groupings of local authorities such as the North Eastern Wheatbelt Regional Organisation of Councils, the Eastern Metropolitan Regional Council and the Pilbara Region of Councils.

Regions are linked to State, national and especially global economic factors but are also influenced by the predominant industry within that region (such as mining, agriculture or tourism). The formation of Regional Development Commissions recognised the need to capitalise on the different economic strengths and opportunities within the regions. Also local communities exist within and relate to a region—it is part of their identity. Many government services are delivered and administered regionally because it is a manageable scale.

For all these reasons, the State Sustainability Strategy encourages the pursuit of sustainability at the regional scale through the development of Regional Sustainability Strategies. These strategies will provide an opportunity to apply the broad framework of the State Sustainability Strategy working with groups of local government as outlined above. Many other government processes can also feed into the strategies, for example the Regional Natural Resource Management Strategies being prepared by Regional Natural Resource Management Groups.

The consultation undertaken by the State-Local Government Sustainability Roundtable suggested that it may be possible for regional sustainability strategies to be developed based on regions that are made up of four to six local governments. This is the scale at which natural resource management boundaries, such as sub-catchments or bioregions, become significant. In this way, it would be possible to create integrated approaches to economic and environmental issues on a regional basis with significant local government involvement.

However, Regional Sustainability Strategies can also integrate the social dimension: community aspirations that can be tapped through place narrative and community visioning processes. The strategies can then produce a regional ‘sense of place’ document to facilitate a shared understanding of the past, and a shared vision of sustainability for each region’s future.

Regional strategies can provide the key to how future development should proceed, an issue explored by the Review of the Project Development Approvals System. The Regional Sustainability Strategies can define the issues that require further action and the resources that are available. They can describe the human dimension to a region through telling the ‘story’ of an area as suggested by City Vision:

The cultural and social dimensions of the state, the people, the place and how they have interrelated with each other and their natural environment are the source of many rich stories. Some of the most skilled and powerful story-tellers the state has to offer are its artists, writers, composers, filmmakers, scientists and historians. The real challenge is to determine how the skills of these story-tellers and the rich repository of stories which exist, can contribute more overtly to the shaping... longer term planning and development.

City Vision, ‘Can Perth Be More Creative?’, 2002.

This story telling approach can apply in regions of the city and in rural areas. The strategies will be prepared through community-based processes and involve universities, industry, local government and regional bodies.

The ‘story’ of each region will include Indigenous stories and history, natural history and local history (see Box 58 on Kodja place and photos over). Partnerships to achieve these perspectives are already being established, for example Professor Bolton’s team at Murdoch University is developing an Indigenous history of Western Australia, the Department of Conservation and Land Management has regional conservation studies, the Western Australian Museum is creating an approach to regional ‘belonging’ and local history and the Department for Planning and Infrastructure and Regional Development Commissions have various strategies and regional plans. Box 18 describes two other projects that add valuable insight to the development of regional sustainability strategies.

BOX 18 DEMONSTRATION PROJECTS ON REGIONAL SUSTAINABILITY STRATEGIES

Regional Sustainability will be given a boost in Western Australia by three projects: CSIRO’s Healthy Country Program, the World Wild Fund for Nature, Southwest Australia Ecoregion Initiative (SAEI) and the Global Centre for Sustainability’s Pilbara Regional Sustainability Strategy.

Healthy Country will address many of the regional sustainability research and development issues that are critical for the future for the State. This important initiative will be closely tied to the implementation of the State Sustainability Strategy and is further outlined in *Research and development for sustainability*.

The SAEI is an international project by the World Wide Fund for Nature that has as its focus the management of the region’s globally significant biodiversity. The project will be community-based to provide ‘bottom-up’ solutions to the many issues facing the region with an emphasis on policy and a biodiversity vision. (See also *Sustainable urban design*).

These demonstration projects support the implementation of the State Sustainability Strategy and help provide substance to a Regional Sustainability Strategy for the South West.

The Global Centre for Sustainability (see *Research and development for sustainability*) has been funded to do a demonstration Regional Sustainability Strategy in the Pilbara. An interdepartmental committee has been established by the State Government to help define the methodology for Regional Sustainability Strategies. The first phase of this methodology will be trialed in the Pilbara region.

The Committee considered a paper proposing a methodology for Regional Sustainability Strategies which is available on the CD-ROM and sustainability web site.

Regional Sustainability Strategies will:

- provide an integrated application of the State Sustainability Strategy as it applies to the region
- build on the regional plans and natural resource management strategies currently in preparation
- incorporate the social element through sense of place ‘stories’ incorporating Aboriginal stories, the natural history and the local history
- link to broad, non-government organisation processes in the regions to pursue regional visions, for example the Southwest Australia Ecoregion Initiative and CSIRO Healthy Country, as well as a community visioning process where appropriate
- provide a broad set of goals for the future from this process.

The Sustainability Roundtable will oversee the development of Regional Sustainability Strategies after reviewing the first demonstration project in the Pilbara region. There are also important policy issues and regional planning to be considered with the Western Australian Planning Commission, local governments and Regional Development Commissions, for example on how best to determine boundaries for managing some sustainability issues through Regional Councils of local governments. The State-Local Government Roundtable provided support for the establishment of Regional Councils for some sustainability issues including natural resource management, water supply and drainage, waste management, transport planning, economic and social planning.

The government has committed to amending *The Regional Development Commissions Act 1993* to ensure that the activities of the Regional Development Commissions are consistent with sustainability principles. The Regional Development Commissions will also be involved in the development of Regional Sustainability Strategies and Regional Councils of local governments.

In short...

Vision

Each region has its ‘story’ that is constantly updated by the people who live there. This ‘sense of place’ resource enables all development project proponents to assess how they can contribute to the area; it can also be a resource for tourism and education in the region.

Objectives

- Enable regional Western Australia to develop more sustainably.
- Apply the State Sustainability Strategy regionally.
- Develop a process that can enhance the long and short-term ‘sense of place’ in the regions of Western Australia.

Actions underway

- The Department of Local Government and Regional Development is developing a Regional Policy Statement for Western Australian that will provide a clear vision for regional Western Australia and a long-term comprehensive, sustainable approach to regional development.
- The Department of Conservation and Land Management’s biological survey and other programs provide environmental information on the regions.
- Regional natural resource management councils are preparing regional natural resource management plans.

In short cont’d...

- Regional development plans have economic, social and environmental components and Regional Development Commissions have elements of all three components in their activities.
- Regional cultural studies are beginning as part of cultural mapping for Indigenous perspectives.
- The Department of the Premier and Cabinet supported the development of a methodology for Regional Sustainability Strategies through an interdepartmental committee.

Actions

- 1.27 Through the Sustainability Roundtable and the Western Australian Planning Commission develop a methodology for Regional Sustainability Strategies after reviewing the methodology adopted for the demonstration project in the Pilbara region. These strategies will provide an opportunity to apply the broad framework of the State Sustainability Strategy in cooperation with local governments, Regional Councils, Regional Development Commissions and the Western Australian Planning Commission. These strategies will build on and link regional plans, natural resource management plans, economic development plans, regional ‘sense of place’ stories and future aspirations for regions.
- 1.28 Amend the *Regional Development Commissions Act 1993* to ensure that the activities of the Regional Development Commissions are consistent with sustainability principles.

Global opportunities

The regional ‘sense of place’ documents can give the social basis for development as well as the economic and environmental factors. This will be a significant achievement and generate international interest.

Further information

Armstrong, R 2002, *Developing a Strategy for Regional Sustainability in the State of Western Australia*, sustainability background paper, State Sustainability Strategy CD-ROM, Department of the Premier and Cabinet, Perth.

Stanton-Hicks, E 2002, *Sustainability and the Iron Ore Industry in the Pilbara: a regional perspective*, sustainability case study, Department of the Premier and Cabinet, Perth, viewed 15 August 2002, <http://www.sustainability.dpc.wa.gov.au/CaseStudies/pilbara/pilbara.htm>

Waller, S 2003, *Storytelling and community visioning: Tools for sustainability*, background paper, State Sustainability Strategy CD-ROM, Department of the Premier and Cabinet, Perth.



The Kodja Place building is shaped liked the kodja axe, which was made by Noongar people from plentiful local stone and was widely traded in the area. The building was constructed using local and traditional building materials wherever possible and the interior colours represent the local natural environment.

Source: Gary Burke

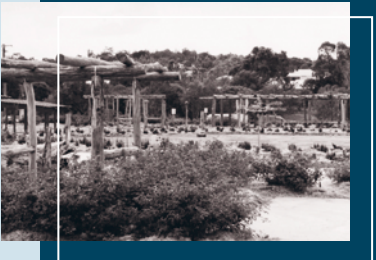


Inside the Kodja Place Visitor and Interpretive Centre, Kojonup, which was designed to be ‘One story, many voices’ for the local community.

The Storyplace interpretive exhibition Designers: Arbor Vitae Landscape Architecture and Philip Gresley Architect

Artwork: Craig McVee (floor painting) and Stuart Green (fire line sculpture)

Photograph: Gary and Tracey Dixon of Melody Makers, 2003



The rose maze, consisting of Australian roses, provides the opportunity to tell the stories of women from the three local cultures, Wadjela (consisting of English and Italian people) and Noongar, people that have contributed to the development of Kojonup today.

Source: Gary Burke

> **INDIGENOUS COMMUNITIES AND SUSTAINABILITY**

There is much to learn from the Aboriginal peoples of Western Australia about sustainability. They lived in this country for more than 500 generations with a traditional lifestyle based on sustainability principles.

Today, Aboriginal cultures are a unique and valued part of the State of Western Australia. Aboriginal people have continuing rights and responsibilities as the first peoples of Western Australia, including traditional ownership and connection to land and waters.

Even so, Aboriginal people suffer much greater disadvantage than the non-Indigenous population. Circumstances differ significantly between regions and localities, and these differences create different challenges in working towards sustainability. Regional and local approaches are required to address the issues that impact on Aboriginal communities, families and individuals. To achieve improvement, government and Aboriginal people need to work in partnership and share responsibilities. It is only through this process that sustainability can be achieved.

The sustainability of Indigenous communities is fundamentally dependent on two factors. The first is that Indigenous communities undertake to identify appropriate governance structures. These bodies will be ultimately responsible for development of the community and all of the process through which this will occur. If these bodies have credibility within the Indigenous community, and are able to deal with the environment within which those communities operate, there will be resilience and cohesion necessary to implement changes for a preferred future. The other factor is that the whole of Government undertakes to develop appropriate processes to work with Indigenous communities. If this is undertaken in a way that respects the history, values and uniqueness of Indigenous communities then the service required by the Indigenous communities will deliver outcomes in line with those experienced by mainstream WA.

Department of Indigenous Affairs

For Indigenous Western Australians, sustainability is integral to all areas of community life including land management; biodiversity conservation; protection of culture, language and heritage; economic development; health; housing; education; employment; and physical infrastructure. The issues are so closely interrelated that they need to be addressed within an integrated planning process.

Wealth creation in the Western Australian community and in the Indigenous community is fundamentally important to addressing issues facing Aboriginal people. Securing Aboriginal spiritual and cultural heritage and respecting traditional ecological value systems must be guaranteed elements within the overall development of the State. This protection and respect must be assured within the State development approval process.

Challenges for government in achieving sustainability within Indigenous communities include:

- understanding the diversity of the Aboriginal community in Western Australia
- building capacity to govern, resolve internal community issues and shift negative patterns of decision-making towards appropriate internal governance and accountability
- providing for long-term planning strategies, partnerships and programs to support empowerment of the individual, family and communities
- reviewing and removing inadequate service delivery models for Indigenous development
- promoting initiatives already active within Aboriginal communities to achieve commonly agreed outcomes (e.g. to manage and maintain 'country' in a traditional manner, to protect and maintain cultural heritage and knowledge, and provide opportunities for useful local employment)

- creating better understanding about how to achieve equity through normalisation of service delivery and
- reviewing the absence of statutory obligations to meet mainstream planning, building and public health standards in Aboriginal communities.

In addition, there are promising opportunities for promoting sustainability in Indigenous communities arising from a number of recent initiatives, which include:

- managing 'country' according to traditional cultural groupings and on the basis of traditional law and custom
- the involvement of Native Title Representative Bodies in facilitating community negotiation, governance and the establishment of more representative structures
- the collaborative work of environmentalists, ecologists, anthropologists, archaeologists and Aboriginal traditional owners resulting from community interaction and management on their traditional lands
- cultural/eco-tourism projects emerging across the State, and
- the move by mining companies to negotiate land use agreements which provide a range of benefits including financial contributions, provision for cultural heritage and environmental management, employment and training, support for small business development and community infrastructure.

Additionally the Statement of Commitment to a New and Just Relationship between the Government of Western Australia and Aboriginal Western Australians asserts that the Government will work with Aboriginal communities with the assistance of the Aboriginal and Torres Strait Islander Commission to:

- agree on a set of principles and a process for the negotiation of a Statewide framework that can facilitate negotiated agreements at the local and regional level
- negotiate a new approach in Aboriginal affairs policy and administration in Western Australia based on regional agreements and
- enhance negotiated outcomes that protect and respect the inherent rights of Aboriginal people and will significantly improve the health, education, living standards and economic standing of Aboriginal people.

Steve Kinnane's background paper *Beyond the Boundaries: exploring Indigenous sustainability issues within a regional focus* proposes that processes for strategic policy development be anchored in community-based programs with a participatory approach. With regard to land management, it is important that a non-adversarial, consultative approach is adopted which seeks to bridge the gap between traditional Aboriginal customs and responsibilities for caring for the country and the need to address the contemporary threatening processes introduced through European settlement.

In the short term the Sustainability Strategy will deliver immediate benefits through the establishment of an Indigenous Protected Areas program based on principles of joint management of lands and waters within the conservation estate of Western Australia, which will involve provision for land management, natural resource management, protection of cultural heritage and ongoing employment and training programs.

These programs will:

- be established through negotiated partnership agreements between the State and Indigenous groups, and expanded to other regions throughout Western Australia in the medium term, and
- provide the basis for the development of regional agreements that are part of the Statement of Commitment in the longer term.

By investing in existing structures and initiatives, the government will be providing employment for Aboriginal rangers and supporting the development of a network of Aboriginal land and water management specialists with the capacity to drive the development of broader strategies.

As discussed in *Sustainability in the Region*, it is intended to include Aboriginal stories in the ‘sense of place’ document to be created for each region (in the country and city). Indigenous regional sustainability can begin around the Aboriginal stories and history that are being recorded as part of the Regional Sustainability Strategies, other Aboriginal arts and cultural tourism projects, and the Aboriginal history project being conducted under the supervision of Professor Geoffrey Bolton, Murdoch University. Indigenous place narrative will feed directly into the development of Regional Sustainability Strategies as outlined in the previous section.

The Government is committed to improving Aboriginal involvement and joint management of the State’s conservation reserves, and has released a consultation paper that aims to provoke discussion on options for joint management of conservation lands based on a number of objectives including the following:

- the establishment of a comprehensive, adequate and representative conservation reserve system that meets international standards
- the management of protected areas so that objectives for conservation, Aboriginal heritage, and recreation are met
- the adequate representation of Traditional Owners on the management body and in the management planning of conservation lands
- the participation of the wider community in the management planning of conservation reserves;
- the implementation of joint management throughout the State
- the recognition of the *Conservation and Land Management Act 1984* of the aspirations of Aboriginal people to participate in conservation land management, and the Aboriginal heritage of the State
- the protection of native title through the creation of new conservation lands
- the responsibility of Traditional Owners for cultural heritage matters on conservation reserves, and
- the establishment of an Indigenous protected Areas program.

There are other important strategies for Indigenous sustainability. The fundamentals of health, housing, safety, community stability and employment are still sadly lacking for many Indigenous people. Commitments to dealing with and resolving the underlying issues need to be built into all government programs with the goal of improving and raising life expectancy rates to the level enjoyed by non-indigenous Western Australians. This process will require mutually agreed partnerships.

These partnerships will only be effective and sustainable where they are:

- Based on integrated planning and shared responsibility, and the process of guaranteeing the accountability of outcomes is formalised through an agreement
- Based on realistic and measurable outcomes supported by agreed benchmarks and targets
- Clear in terms of the roles, responsibilities and liabilities of the parties, and
- Inclusive of an agreed accountability process to monitor negotiations and outcomes from agreements.

Underlying many of the social problems experienced by Indigenous people is the inability to participate in meaningful employment due to a lack of education and training. Recent trends in the mining industry have demonstrated how such obstacles can be overcome if appropriate training is provided. The social charter of sustainability assessment would encourage companies to show how they will contribute to training and employment of Indigenous people.

The Pilbara iron ore companies, Rio Tinto and BHP now have a goal of 12% Aboriginal employment in their companies and are well on the way to achieving this. Rio has a goal of 80% local employment including 40% Indigenous employment by 2007 in its Kimberley operations at its Argyle diamond mine. Indigenous employment was 13.5% in 2002 after having been 4.6% in 1999 and will be 25% by the end of 2003. This means Rio are moving away from fly in/ fly out to a policy of ‘localisation’ based on training of Indigenous people. United KG, which performs construction and maintenance work for some of Western Australia’s biggest resource companies, has signed a deal with ATSIC to give preferential jobs and apprenticeships to Aboriginal people in Western Australia’s north. Other companies involved in regional development will be urged to set comparative targets. A similar process of education and encouragement has produced new attitudes and approaches to respecting and protecting Aboriginal heritage.

Regional agreements will increasingly be used to bring together all aspects of Indigenous Sustainability.

In short...

Vision

Western Australia will be a national leader in innovative and sustainable solutions to Aboriginal community development where reconciliation, negotiated regional agreements and Native Title lead to Aboriginal organisations with sustainable employment, while retaining their communities’ cultural focus, and where Indigenous health indicators are the same as the rest of the population.

Objectives

- Regional agreements and, where applicable, Native Title will be used to recognise, protect and progressively help create Indigenous community sustainability.
- Natural resources are managed in a sustainable manner consistent with regional Aboriginal cultural understandings of sustainable resource management and development.
- Indigenous knowledge is incorporated in land management activities on all public and Indigenous lands to build skills in Indigenous communities and educate mainstream environmental and land management agencies and field workers.
- Programs are implemented to support the process of regional place narrative in Regional Sustainability Strategies (see Box 58 on Kodja Place in *Sustainability and settlements*)
- Future developments acknowledge and respect Indigenous cultural diversity.

Actions underway

- Implementation of the Statement of Commitment to a New and Just Relationship between the Government of Western Australia and Aboriginal Western Australians. This is developing the framework to create regional negotiated agreements to improve governance, capacity building and economic independence.
- Various programs to support the preservation of Indigenous culture.
- The Aboriginal and Torres Strait Islander Commission is supporting the development of comprehensive regional agreements and joint regional planning.
- The Department of Fisheries is working with the Aboriginal community to develop fishing strategies to ensure recognition of Aboriginal fishing interests and aspirations within the existing sustainable fisheries management framework.
- The Department of Conservation and Land Management is implementing joint management strategies for conservation lands and the government is committed to the development and implementation of policy and legislative mechanisms for Indigenous ownership and joint management of conservation lands.
- The government has committed to employ more Aboriginal people in the public sector particularly in senior levels and in decision-making roles.
- The Law Reform Commission is undertaking a Customary Law Project.
- The development of an Aboriginal Justice Plan, for the Indigenous Affairs Advisory Council, which will involve Indigenous people through regional and local partnerships to improve the delivery of justice services to Aboriginal people.
- The government supports the development of the Heritage Protection Agreement as a mechanism to balance Indigenous cultural heritage concerns with the need to expeditiously grant mineral exploration titles.

In short cont'd...

Actions

- 1.29 Implement an Indigenous Protected Areas Program to enhance long-term employment for Indigenous people in their regions, based on joint management, cultural heritage and training. These will be expanded in the longer term into partnership agreements and regional agreements under the Statement of Commitment to a New and Just Relationship.
- 1.30 Develop Indigenous ‘place narratives’ that will feed into Regional Sustainability Strategies and regional agreements as set out in the Statement of Commitment to a New and Just Relationship jointly agreed by the Western Australian Government and the Aboriginal and Torres Strait Islander Commission.
- 1.31 Use Indigenous names of places to help all Western Australians develop an enhanced sense of place and to assist Indigenous tourism.
- 1.32 Assist Indigenous communities to establish keeping places and interpretive centres to preserve and showcase Indigenous culture and support the intellectual property rights of Indigenous communities and artists.
- 1.33 Expand Indigenous cross-cultural awareness training within the Western Australian public sector, for all staff working with Aboriginal people, to build trust and improve service delivery.
- 1.34 Work with Indigenous and industry stakeholders to meet jointly agreed targets for Indigenous employment in major new resource development projects.
- 1.35 Continue to work in a collaborative manner with Indigenous Western Australians to enhance housing and health outcomes through improved service delivery.

Global opportunities

Western Australia is well placed to show global leadership on Indigenous sustainability through a practical program of initiatives, strategies and agreements. This can be a real contribution to global sustainability and become the basis for future employment in the global industry.

Further information

Government of Western Australia 2003, *Indigenous Ownership and Joint Management of Conservation Lands in Western Australia*, Consultation Paper July 2003, Department of Conservation and Land Management.
http://www.calm.wa.gov.au/projects/pdf_files/abpolicy/2003_indig_ownership.pdf

Kinnane, S 2002, *Beyond the Boundaries: exploring Indigenous sustainability issues within a regional focus*, sustainability background paper, State Sustainability Strategy CD-ROM, Department of the Premier and Cabinet, Perth.

Miles, N 2002, *Placer Dome, Mt Keith: gold and Indigenous development*, sustainability case study, Department of the Premier and Cabinet, Perth, viewed 15 August 2002, <http://www.sustainability.dpc.wa.gov.au/CaseStudies/grannysmith/grannysmith.htm>

Ruane, S 2002, *Indigenous Tourism: sustainability issues and opportunities*, sustainability case study, Department of the Premier and Cabinet, Perth, viewed 15 August 2002, <http://www.sustainability.dpc.wa.gov.au/CaseStudies/indigenoustourism/indigenoustourism.htm>

Stanton-Hicks, E & Newman, P 2002, *Argyle: ‘creating a future’*, sustainability case study, Department of the Premier and Cabinet, Perth, viewed 15 August 2002, <http://www.sustainability.dpc.wa.gov.au/CaseStudies/Argyle/Argyle.htm>

> RESEARCH AND DEVELOPMENT FOR SUSTAINABILITY

Sustainability requires innovation in the economy. Government leadership is required to ensure research and development assists the sustainability agenda.

Most modern economic theories recognise the importance of innovation, technology and new ideas in generating sustained economic growth. Innovation, technology and new ideas are also crucial to achieving our social and environmental goals and these goals would be best achieved through a vibrant research and development community.

Chamber of Commerce and Industry

Many of the State’s sustainability challenges ... require the development of new methodologies or technologies. The State’s universities are an under-utilised resource in this regard. A closer alignment between the research activities (particularly in the natural and social sciences/engineering) and the needs of community to develop more sustainable practices would be a major contribution to the State’s sustainability.

Western Australian Local Government Association

Many submissions called for more research and development for sustainability in Western Australia. The concept of sustainability facilitates innovation as it requires new synergies to be identified as well as ‘systems thinking’ to produce simultaneous outcomes for the economy, community and environment.

Government must work in partnership with other stakeholders to conduct research and development. In 1998-99 the Western Australian Government conducted research and development worth \$92 million. During the same year industry undertook research and development worth \$434 million, universities \$225 million and Commonwealth government agencies \$64 million. The State Government’s Innovate WA program is designed to build on and extend this research commitment.

The Science Council was established in July 2001 and the Office of Science and Innovation was established on 1 July 2002 to provide support for the science community in Western Australia. The Centres of Excellence in Science and Innovation program is administered through the Office and provides funding support for commercially oriented research. Generally, centres are established as a partnership between universities, CSIRO, the private sector and/or public sector agencies.

The Office of Science and Innovation currently provides almost \$7 million, or 30% of current program commitments, to ten centres that have a recognised focus on sustainability issues:

- Cooperative Research Centre for Sustainable Energy
- The Centre for Management of Arid Environments
- Centre for Organic Waste Management
- Cooperative Research Centre for Biological Control of Pest Animals
- Centre for Marine Science and Technology
- Centre for Water Research
- Centre of Excellence in Natural Resource Management
- International Environmental Technology Centre
- Centre for Sustainable Mine Lakes
- Cooperative Research Centre in Dry Land Salinity

The Centre of Excellence in Cleaner Production at Curtin University is funded through the Western Australian Government’s Waste Management and Recycling Fund.

In February 2003 the Chief Scientist for Western Australia was appointed and together with the Science Council has agreed on a number of areas for future research. These include energy, environmental research in the areas of salinity and water, and the marine environment. All areas have the potential to expand sustainability objectives.

The government is also assisting in the establishment of a new centre called the Global Centre for Sustainability. This centre is a partnership between the five universities, CSIRO, the State Government and private industry. The aim of the centre is to develop partnerships around major international funding opportunities from the World Bank, AusAID and the Asian Development Bank. These large projects require innovation in sustainability that is often very evident in Western Australia, but this State is rarely considered for such projects. The Global Centre for Sustainability will facilitate the necessary support to seek out and form the government-university-industry partnerships so often needed to compete globally. It will begin by working on the methodology for Regional Sustainability Strategies which overseas development agencies are looking to use in future aid.

The Western Australian Government has undertaken a considerable amount of research and development in sustainability (see Boxes 19 and 20). There is a need to prioritise government research and development in sustainability and to encourage partnerships with other research and development groups in government, universities, CSIRO and industry. It is proposed that a Science Council–CSIRO forum on sustainability science be held with all relevant research and development groups to help develop priorities and partnerships, especially in the light of CSIRO’s Healthy Country initiative (see Box 21).

BOX 19 BIODIVERSITY RESEARCH IN WESTERN AUSTRALIA

The Department of Conservation and Land Management (including the Herbarium) has a \$10 million annual budget for 180 environmental research projects, primarily based on describing and documenting the State’s biological diversity and how it can be conserved.

In Australia, some 6000 species are under threat and 40% of these are in Western Australia. Three mammal species have recovered and been removed from the threatened list as a result of research and management actions by the Department of Conservation and Land Management. The Botanic Gardens and Parks Authority has a budget of \$0.8 million for similar biodiversity work. The Authority discovered the effect of smoke on the germination of native plant seed that has enabled the horticulture and landcare industries to access 20 per cent of the Australian biota previously considered unavailable for propagation. The Western Australian Museum also research bio- and geodiversity and recently won the Golden Gecko Award for its research and development with Woodside on the Dampier Archipelago. The Zoo conducts research on global biodiversity issues such as orang-utans as well as some native species. The biodiversity of the marine environment is only just beginning to be researched in comparison with other parts of the environment.

Sustainability science is emerging as a new discipline that integrates perspectives on large scale and regional scale sustainability issues, allowing scenarios to be drawn up and modelled (see Box 22).



The Woylie is the world’s first mammal species removed from the international threatened species list as a result of research and management actions by the Department of Conservation and Land Management.

Source: Babs and Bert Wells/ Department of Conservation and Land Management

BOX 20 NATURAL RESOURCE MANAGEMENT RESEARCH

The Water and Rivers Commission allocates between \$1 and \$3 million per year to jointly funded water management research projects. These projects include the development of a computer model to understand the extent and dynamics of all the groundwater aquifers in the Perth basin and how they are linked. This will enable government to decide how to optimise the use of the aquifers and minimise environmental impact. This million-dollar project is attracting world attention.

The Water Corporation spends \$4 million on research and development a year and its MIEX plant, opened by the Premier in 2002, is a world first water purification plant based on joint research with CSIRO, that magnetically removes organic pollutants from water.

The Department of Environment allocated \$5 million to research that allowed the establishment of clear environmental criteria for managing water in Cockburn Sound; enabled Pilbara air quality studies to reduce dust impacts; and supported air toxin research on personal exposure and health monitoring and the public health aspects of air quality.

The Department of Agriculture’s research and development budget is the biggest in the State’ total of \$48 million per year. This reflects agriculture’s value to the Western Australian economy of \$4.6 billion per year. Research is conducted on new agri-industries, ecologically sustainable agricultural practices and protecting the resource base. The Department of Agriculture allocates around \$11 million per year to salinity monitoring and management studies including rapid catchment appraisal work based on satellite imagery and data from 7000 bores linked to a database. The Department of Agriculture is also doing research on nutrient management in the Peel-Harvey, Wilson Inlet and Albany Harbours, including groundbreaking work with local community involvement in Denmark. An innovative project to remove phosphorus from the Swan-Canning system through ‘Phoslock’ technology has been developed jointly with UWA and CSIRO.

The Department of Conservation and Land Management has a number of biodiversity recovery catchments that are threatened by salinity, to ensure all is done to prevent loss of species. Lake Toolibin is being pumped to enable plant life to survive that would have died from saline invasion.

The Forest Products Commission spends \$3.5 million per year on research into how salt-affected land can be remediated through reforestation. With the Department of Conservation and Land Management they are investigating how oil mallees could help revitalise rural land and local communities through new industries and power generation.

The Department of Fisheries allocates \$10 million to research and development to ensure the sustainability of the State’s fisheries.

In a State as large as Western Australia it is important to have good data on the land and its resource base. Western Australia has internationally recognised research and development that is constantly tapping the new technology of satellite imagery and ground-truthing with detailed surveys. The Geological Survey maps geological resources. The Department of Land Information and the Leeuwin Centre map all land surface characteristics using different parts of the light spectrum to enable land management to be pursued. The proposed Cooperative Research Centre in Earth Observations will make more productive use of these data and make it more accessible to decision makers.

BOX 21 CSIRO ‘HEALTHY COUNTRY’ PROJECT

‘Healthy Country’ is one of CSIRO’s seven ‘Big Hairy Audacious Goals’ that is redefining how CSIRO will do a significant proportion of its research.

One of four focus regions for this project will be the South West of Western Australia. The research undertaken on biodiversity, land degradation and water can provide answers to many of the deep questions that face us by focusing on key areas of knowledge and innovation. Research priorities will be determined through processes involving scientists, industry, the community and government.

The CSIRO will be seeking to undertake the significant research that can really make a difference, unlocking solutions to broad scale systems of land and water ecosystems as well as their human and social context. The State Sustainability Strategy recommendations and implementation will be closely tied into this project.

BOX 22 SUSTAINABILITY SCIENCE AND THE ORD-BONAPARTE PROJECT

Many professions have developed around disciplines of knowledge that are largely isolated and self-propagating. The concept of sustainability challenges us to find new synergies and integration between the disciplines. Sustainability science is emerging as a way to tackle major issues that require the integration of science, social sciences and humanities with beneficial outcomes for the environment, the community and the economy.

The Ord-Bonaparte Project was established to facilitate sustainable development in the East Kimberley through a research partnership between the Federal and State Governments, scientists and the community. The Project is providing new understandings of the land; freshwater and marine ecosystems; issues related to fire and biodiversity; grazing and Aboriginal use of the land and the marine ecosystems; nutrient management in the irrigation system, extent of groundwater resources; and the overall scenario of how the Kimberley can be a model of sustainability within a region. See photo below.

In short...

Vision

Western Australia is recognised around the world as a global centre for research and development on sustainability that is not only innovative globally but is practical and relevant to solving Western Australia's problems.

Objectives

- Initiate research and development targeting sustainable outcomes for Western Australia's land, water, air and other natural resources.
- Make Western Australian industry and resource use more efficient.
- Facilitate Western Australia's involvement in the global sustainability economy.
- Create long-term jobs for Western Australians.

Actions underway

- Many State government agencies undertake research on sustainability issues.
- The Western Australian Government provides funding to support Centres of Excellence through the Office of Science and Innovation and other research organisations.
- The Institute for Regional Development has been established at the University of Western Australia.
- Edith Cowan University in Bunbury has established a Professorial Chair in regional development.
- The Department of Conservation and Land Management is publishing biodiversity assessments for all regions of the State, consistent with the National Land and Water Resources Audit's 2002 Terrestrial Biodiversity Assessment.

In short cont'd...

Actions

- 1.36 Use the Western Australian Major Research Facilities Program to successively establish globally significant research centres on the sustainability science associated with energy, salinity, water supply, and marine issues.
- 1.37 Build on the Global Centre for Sustainability as a partnership for sustainability research and development in Western Australia with a focus on attracting global research funds.
- 1.38 Continue to support bids for Commonwealth funding for cooperative research centres and other research funding programs related to sustainability.
- 1.39 Endorse the CSIRO's commitment to implement the Healthy Country initiative in the South West of Western Australia.
- 1.40 Establish an agricultural research institute to coordinate work currently undertaken by the Department of Agriculture, Curtin University of Technology, Murdoch University and the University of Western Australia, to increase economies of scale and better address agricultural sustainability issues.

Global opportunities

The global market for environmental technology has been estimated to be worth \$1 trillion dollars and funding on global aid is similarly enormous. The strategies outlined above are designed to enable Western Australia to access these markets as well as solving many of the sustainability challenges of our own State.

Further Information

Centres of Excellence in Science and Innovation Program
<http://www.dpc.wa.gov.au>

Environmental Technology Centre, Murdoch University
<http://www.wies.murdoch.edu.au/etc/>

Premier's Science Council
<http://www.sciencecouncil.dpc.wa.gov.au/>

The Centre of Excellence in Cleaner Production, Curtin University
<http://cleanerproduction.curtin.edu.au/>



CSIRO technicians John Byrne and Gerald Watson drilling one of 80 new bores to monitor groundwater in the Ord River Irrigation Area. The network of monitoring bores has allowed CSIRO/Ord Bonaparte Project scientists to develop detailed models of groundwater in the irrigation area, and support the implementation of strategies to manage rising groundwater.

Source: Ord Bonaparte Project

> MEASURING AND REPORTING ON SUSTAINABILITY

To assess how we are progressing on the sustainability agenda it is essential to have a framework in place that allows regular reporting on progress against key sustainability indicators, and the provision of data that is publicly available and easily accessible. Information is critical to sustainability but it needs to be integrated and accessible.

Government must support community access to the latest research, data and technology to enable improved land management.
Environmental Alliance

A mechanism is needed to tell how we are tracking on the sustainability agenda in the management of the economy, community and the environment. This is to provide decision makers with a more complete picture of their region so they can make informed choices, increase community understanding about sustainability issues and measure progress against sustainability policies and targets.

Traditionally, economic measures, such as Gross State Product, have been widely used as surrogate indicators of progress and prosperity. While economic measures are important, they do not take into account environmental or social considerations. As strong economic performance does not necessarily equate to a healthy environment or an equitable standard of living, a set of headline sustainability indicators is required that measures (as a minimum) progress across the triple bottom line – economic, social and environmental quality.

Key indicators and targets for sustainability

Over the past five years there has been extensive work at the international, national, State and local levels to develop indicators and targets for sustainability. For example, the United Nations has been developing global indicators for sustainable development and in 2002 the Australian Government issued its first report on the National Headline Indicators for Sustainability. The Western Australian Government has developed a set of regional economic, environmental and social indicators. In most cases existing indicators do not adequately integrate social, economic and environmental aspects of sustainability.

To make effective decisions and policy true to the principles of sustainability, however, indicators are required that both reveal and validate the interrelationships between the environment, society and the economy. In this light, new integrative indicators have begun to emerge. These indicators, often termed ‘true measures of progress’ or ‘quality of life’, attempt to measure cause-effect relationships between the three components. Ecological footprint analysis is one such indicator (ecological footprint analysis provides an estimation of the area of land required to support a region’s level of consumption).

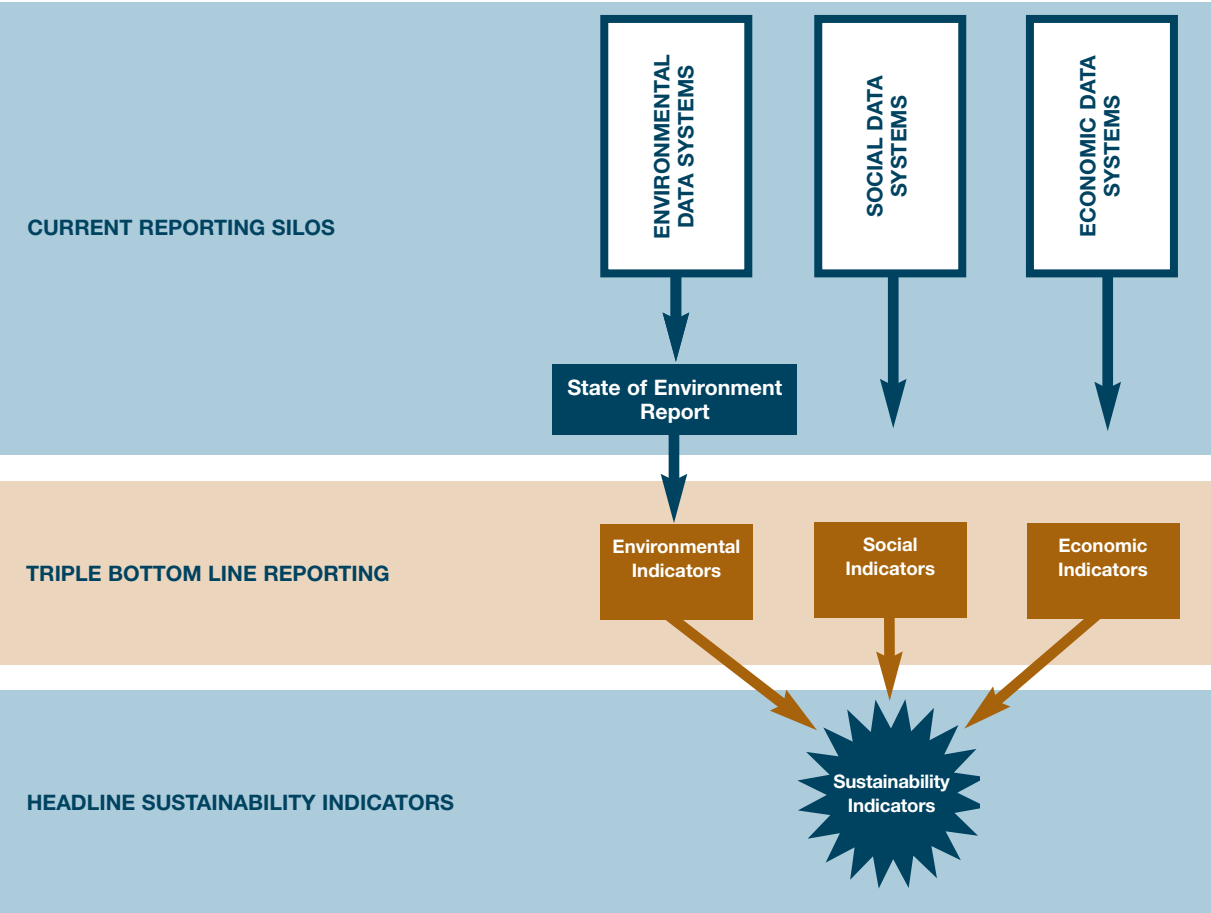
The headline sustainability indicators outlined in Table 4 are designed to provide an overall guide for how Western Australia should be trying to move. They reflect the definition of sustainability and also relate to the sustainability principles. The real test for sustainability indicators is that they must integrate economic development, community action and government activity. Additional work will be required to develop a suitable set of integrative headline sustainability indicators for Western Australia.

Figure 5, over, demonstrates how current environmental, social and economic information systems can feed into a triple bottom line reporting program and eventually integrative sustainability indicators.

Table 4 Examples of possible headline sustainability indicators

Desired sustainability outcomes	Indicator measures	Measured by
Wealth increasing inclusively	All economic activity including how wealth is distributed (as in Principles 1 and 2).	Gross State Product per capita or, when it is available, the Index of Economic Welfare (GSP amended to exclude negative externalities like road accident costs, crime costs). The ABS are developing a new indicator they are calling ‘inclusive wealth’ to help demonstrate distributional equity.
Ecological footprint decreasing	Energy use, waste, land & water use (as in Principles 3 and 4).	Ecological footprint index per capita as measured in the Australian State of Environment report.
Social capital increasing	Strength of community networks and interaction (as in Principles 5, 6 and 7).	Social capital index as used by the Department of Health or by a more fully developed index as suggested by the Western Australian Council for Social Services.
Sustainability governance improving	Extent to which sustainability is embedded in government (as in Principles 8, 9, 10, and 11).	Numbers of sustainability action plans, sustainability assessments conducted and sustainability annual reporting by agencies (combined index).
Sustainability awareness increasing	Extent to which community is aware of local and global sustainability issues (as in Principles 5 and 7).	New index based on a survey of selected key sustainability issues to test for awareness and interest in issues.

Figure 5 Towards headline sustainability indicators for Western Australia



With a few exceptions, many integrative sustainability indicators have yet to be tested with any scientific rigour and, as such, lack the robustness to be applicable at the State or regional level. Until such time that integrative sustainability indicators are more fully developed, a triple bottom line reporting approach will provide a useful indication of Western Australia’s progress towards sustainability. Accordingly, the Western Australian Government is looking to develop headline sustainability indicators to demonstrate Western Australia’s progress across the triple bottom line and to assist with informing the community.

For headline and integrative sustainability indicators to be meaningful in terms of desired sustainability outcomes, they must be measured in the context of an agreed sustainability framework. Similar to an environmental management system approach, indicators should be able to detect change in sustainability resulting from sustainability policies and targets, thereby increasing transparency of process and enhancing our knowledge base for developing sustainable practices.

Sustainability and State of the Environment reporting

In terms of the environmental bottom line, Western Australia’s State of the Environment (SOE) reporting program is the key mechanism for summarising the condition of the State’s natural resources.

The SOE report discusses each of the State’s key environmental issues in the context of the pressure-state-response model to assess the condition of the environment, the pressures being exerted upon it, and what is being done (or should be done) to mitigate those pressures. The SOE reporting program underpins the State Sustainability Strategy in the following ways:

- reporting on matters relating to the condition of Western Australia’s natural environment
- facilitating the decision-making process to identify sustainable outcomes
- enhancing knowledge and understanding of environmental issues, and
- encouraging sound environmental practices and procedures to be adopted by the Western Australian government and local government.

Economic and social bottom lines also need to be reported on. The approach adopted through the State of the Environment reporting process needs to be expanded to enable reporting on all aspects of sustainability. This will be pursued through the State of Sustainability Report that will report progress on the implementation of the State Sustainability Strategy together with headline sustainability indicators.

Sustainability and the Western Australian Land Information System

Sustainability cannot be delivered without accurate, up-to-date and reliable land and geographic information. Geographic information helps us to understand and form effective strategies to address critical sustainability issues such as salinity, forest management, Native Title, land use conflict and infrastructure planning. Easy access to this information is crucial to the success of the State Sustainability Strategy.

The Western Australian Land Information System (WALIS) is a key avenue through which data relating to the provision of land and geographic information can advance the goals of the State Sustainability Strategy. Government will support coordinated approaches to the continued development of suitable land and geographical information.

The Western Australian Atlas is an interactive mapping service managed by WALIS and provides free access to reliable information to assist government, community and industry, to support improved environmental planning and decision-making. The Western Australian Atlas enables users to overlay different geographic datasets, including coastal, infrastructure, topographic and environmental themes, to meet their differing needs.

Information systems for sustainability

To report on Western Australia’s progress towards sustainability, as well as enhance the capacity of community groups and agencies working on sustainability issues, environmental, social and economic data/information sources should be incorporated within an information system that is readily available to decision makers and the public.

To this end, current systems provide an incomplete picture of sustainability for Western Australia. This is largely the result of inconsistencies in the scale at which data for each of the three components of sustainability (social, environmental and economic) are collected and reported. For example, regular reports on economic data including the cost of living, inflation, unemployment etc., are consistent at the State scale. Yet, many occasional social measures are reported differently in each region.

Temporal differences in data can also pose difficulties for sustainability reporting. Up-to-date environmental data and information on natural resource management, for example, is often less available than current economic and social data. This means that assessing and reporting on progress towards sustainability at any particular time is difficult.

The Australian National Land and Water Resources Audit (NLWRA), a progressive information system available on the internet, has attempted to overcome some of these barriers. This system brings together relevant social, economic and environmental data for particular regions around Australia. Although measures are not integrated, the system is able to provide an estimate of progress across the triple bottom line. Programs such as the NLWRA will provide useful models for Western Australia to develop a State information system for monitoring, data analysis and reporting on sustainability.

Western Australia’s Sustainability Online

The Western Australian Government will work to establish a Sustainability Online web site. Like the NLWRA online information site, Sustainability Online will be an atlas of Western Australian resources collating and eventually integrating economic, environmental and social information. This system will be designed to make information easily accessible to government, community and industry, and to service many users at a range of scales (local, regional and State).

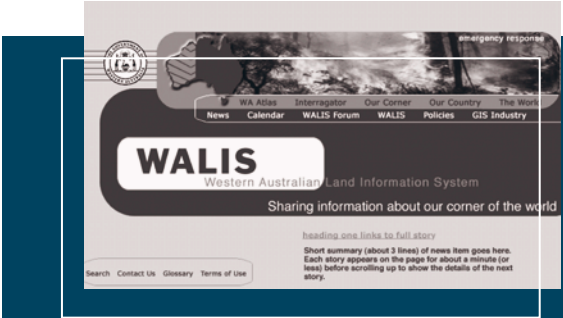
This site will be a support tool for government to provide the public with an understanding of the state of the environment and sustainability issues in general. Access to a range of environmental data will result in easier and better decision-making on State development projects.

Initially this site will be the major source of up-to-date environmental information, to a large degree drawing on the outcomes of the SOE reporting program. However, in time it will include integrated social and economic data sources that support improved natural resource management as new indicators for progress towards sustainability emerge. It will also provide a portal to already functioning web sites on sustainability such as the Department of the Premier and Cabinet’s sustainability web site and the Sustainable Energy Development Office web site among others.

Over time the site will include locally and regionally monitored community data of importance to the sustainability of that local or regional area.

The Western Australian Land Information System (WALIS) offers a coordinated focal point for accessing geographic information in Western Australia. The decision to design a new, more interactive website that provides access to the WA Atlas, was critical to ensuring that WALIS has a tool to engage, simulate and inform.

Source: Western Australian Land Information System



The system will, for the first time, incorporate a range of natural resource management spatial datasets including those created through:

- Land Monitor
- National Land and Water Resource Audit
- North West Shelf programs
- Salinity Action Plan
- State of Environment Report
- metropolitan air quality
- Greenhouse
- sustainability projects
- regional and catchment planning
- biodiversity data from several agencies
- water quality data.

The site will contain advice and policies generated by the Environmental Protection Authority, spatial data with mapping capabilities, metadata search and input tools, scientific reports, and other environmental statements and reports. Integration of the data at the regional scale will be attempted in the next few years as part of the development of regional sustainability strategies.

In short...

Vision

Headline sustainability indicators are regularly reported and widely available and inform the response of government, the community and business to the sustainability agenda. An internet one-stop-shop provides easy access for anyone wanting sustainability information from government.

Objectives

- Develop headline indicators for Western Australia that gauge progress across the social, environmental and economic dimensions of sustainability, in close consultation with all stakeholders.
- Regularly report on Western Australia’s progress along the triple bottom line across government, the community and private sectors, using existing reporting mechanisms such as State of the Environment reporting.
- Improve access to sustainability information to increase the capacity of all stakeholders to make informed decisions about environmental and sustainability issues.

Actions underway

- A State monitoring and evaluation framework is being developed by the Environmental Protection Authority in consultation with the lead Natural Resource Management agencies that will prove information on the condition of the State’s natural resources.
- The Land Monitor Project provides fundamental datasets for environmental monitoring and assessment.
- The Departments for Planning and Infrastructure, and Environment, Water and Catchment Protection have established an inventory within the online Western Australian Land Information System ‘Interrogator’ to provide a central database for storing government and non-government information (metadata) on Western Australia’s natural resource datasets.

In short cont'd...

- The Department of Fisheries publishes an annual State of the Fisheries report that reports in detail on the activities and impacts of the commercial and recreational fisheries and aquaculture sectors in Western Australia.
- Web sites with considerable public information are available in most government agencies, e.g. Sustainable Energy Development Office, Water Corporation.
- A wide range of social and economic data are available from the Australian Bureau of Statistics that will underpin triple bottom line reporting for the State.

Actions

- 1.41 Through the Sustainability Roundtable develop headline sustainability indicators for Western Australia and regularly review and report this information.
- 1.42 Establish an ongoing State of Sustainability reporting framework to measure and report on the goals and objectives of the State Sustainability Strategy together with headline sustainability indicators and environmental, economic and social ‘bottom lines’.
- 1.43 Work to establish Sustainability Online as a source of sustainability information in Western Australia.

Global opportunities

The problem of integrating data and making it accessible to the public is a universal issue. If Western Australia can adequately address this issue it will be of global significance. The involvement of the staff of the Department of Land Administration in global development projects has shown how our land data systems can be of value in major aid projects.

Further information

Australian Bureau of Statistics
<http://www.abs.gov.au>

Department of Environment
<http://www.environ.wa.gov.au/>

Environment Australia National Headline Indications for Sustainability
<http://www.ea.gov.au/esd/national/indicators/index.html>

Sustainable Energy Development Office
<http://www1.sedo.energy.wa.gov.au/>

United Nations Global Indications for Sustainable Development
<http://www.un.org/esa/sustdev/isd.htm>

Western Australian Atlas
http://www.walis.wa.gov.au/content/wa_atlas_popup.html