

**SUBMISSION OF THE WESTERN
AUSTRALIAN DEPARTMENT OF
TRAINING TO THE
STATE SUSTAINABILITY STRATEGY**

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Introduction

The Department of Training supports the development of a State Sustainability Strategy to provide a blueprint for future economic and social development in Western Australia.

The Department of Training is the Government instrumentality responsible for the provision of vocational education and training (VET) and employment services throughout Western Australia. The Department monitors the skill requirements of industry closely and is well placed to support the changing educational needs of the Western Australian workforce. The Department also responds to community needs by providing a range of programs to increase employment opportunities and enhance the employability of Western Australians.

This submission contains examples of research and programs already being undertaken by the Department which is consistent with sustainable development along with an examination of those areas in which the Department may be able to play a significant role over coming years.

Overview

The Department's vision is "the best trained, most employable people in the world" which is underpinned by a mission to "strategically manage, develop and grow the State's investment in the employment and training of Western Australians".

In order to achieve this vision, the Department of Training has identified five strategic objectives for the training and employment sector in Western Australia, namely:

- Increasing the skills of Western Australians;
- Supporting economic and employment growth through training;
- Empowering individuals to take control of their learning and employment pathways;
- Improving employment opportunities for all Western Australians; and
- Targeting employment and training services to the needs of the community, businesses, industry and regions.

Strong industry linkages are essential to all facets of the Department's operations and include collaboration in relation to industry's future training and employment needs and business occurrences affecting their staff, suppliers and local communities.

The Department of Training and the Sustainability Agenda

The Department has an excellent track record with respect to its support for environmental issues and the ongoing promotion of sustainable development. This has been implemented through an ongoing program of development consisting of research, training courses and labour market programs based on themes consistent with the sustainability agenda.

The Department of Training has a significant impact on the lives of Western Australians. Through its coordination of vocational training, the Department provides a unique interface between industry and the Western Australian workforce and, by extension, the broader community. In 2000-2001 over 100,000 Western Australians participated in training funded by the Department. Our large customer base and whole-of-state coverage by TAFE colleges affords us the opportunity to transmit the core skills and values associated with sustainability both through formal programs and through general awareness-raising initiatives.

A significant contribution is also made to the economic and social development of communities through targeted employment strategies. This aims to enhance the sustainability of communities through providing opportunities for employment and through the personal development of citizens to make them more employable and resilient to changing needs in the labour market.

The following section addresses the various functions of the Department of Training and TAFE Colleges and how they can each contribute to the overall implementation of a State Sustainability Strategy.

Corporate Citizen and Catalyst

As the discussion paper *Focus on the Future: Opportunities for Sustainability in Western Australia* acknowledges, development of a “culture of sustainability” amongst the Western Australian population will take some time. The State Government will have to take a key role in the change process and will, to some extent, be required to lead by example.

Government agencies will play their part in achieving the goals outlined in any State Sustainability Strategy through the implementation of specific programs and initiatives based upon their key business areas.

The Department of Training is already working towards implementing sustainable business practices. In November 2001, it became a signatory to the Western Australian Cleaner Production Statement under the auspices of the Western Australian Sustainable Industry Group. Cleaner Production is essentially about making more efficient use of the materials and energy employed when conducting business (whether it be a service, manufacturing, processing or mining venture), while minimising the generation of wastes and emissions.

Several TAFE colleges including Central, Challenger, Midland, SEMC and West Coast College are also signatories to the Statement. It is essentially a statement of intent calling on government, employers and the general community to “consider cleaner production and eco-efficiency seriously and act accordingly”.

Participating organisations sign a Memorandum of Understanding which is valid for two years under which they agree to the development, with support from WASIG, of an action plan addressing how they will further the promotion of cleaner production and eco-efficiency. Examples of agreements already implemented within some TAFE colleges are included at **Appendix 1**.

Some colleges are also in the process of undertaking environmental audits. The draft audit for Central TAFE is included at **Appendix 2**.

Training Services

The core business of the Department of Training is to increase the skills of all Western Australians. This is achieved through the purchase and supply of vocational education and training courses from both public and private Registered Training Organisations (RTOs). Public training is delivered through the TAFE college network and a network of private providers.

The vocational education and training system offers qualifications consistent with the Australian Quality Training Framework (AQTF), a set of nationally agreed standards which ensure the quality of vocational education and training services throughout Australia. In addition, TAFE colleges offer a range of non-accredited adult community education (ACE) courses.

Once a Training Package has been endorsed, all Registered Training Organisations are expected to make use of it as a base for their training and/or assessment.

While most training delivery in VET is through nationally recognised Industry Training Packages the potential exists at the local level to customise and include elements of particular importance in the local environment. Therefore, there is the opportunity for some customisation around the sustainability agenda. Given the enormous reach of the VET sector in Western Australia (over 100,000 clients per annum), this provides a potentially significant opportunity to transmit some of the core skills and values associated with sustainability.

With respect to the availability of specific courses consistent with sustainability principles, several are already on offer through TAFE colleges, often in response to specific local industry requirements.

For example, Great Southern TAFE currently offers a range of training programs designed to promote the notion of sustainability, including:

- Certificate III in Bush Regeneration
- Certificate II & III in Aquaculture
- Certificate III in Land Management
- Components of Certificate II in Forest Products (plantation timbers)

Central TAFE offers Certificate IV and Diploma level qualifications that focus on design and installation of renewable energy systems. This has established strong links with the Office of Energy and has been successful in securing grants for the purchase of equipment to support delivery of renewable energy programs. The Centre is currently developing a solar power system at E-Central campus that will enable power to be fed back into the building.

A range of qualifications in Mining and Mineral Processing, as well as Oil and Gas (Process Manufacturing) incorporate consideration of environmental and sustainability issues.

Customised training is provided through Central TAFE in the areas of Risk Management and Sustainability, Environmental Monitoring Systems and Environmental Risk Management and Audit.

The Diploma of Building Design and Drafting includes a focus on sustainable design. A new program to be introduced in the near future will incorporate energy sustainability as a separate and distinct entity.

The Centre for Building Design and Drafting has also been supported by the Office of Energy as a provider of Housing Energy Rating Software Systems in Western Australia for the building design industry.

The TAFE system is extremely responsive to industry needs and undertakes extensive research and planning to ensure that courses and qualifications offered closely match industry requirements. Shifts in demand and the emergence of new industries are reflected in the State Training Profile (STP) and ultimately in the provision of specific training courses and qualifications at college level.

System Planning

The Department of Training undertakes forecasting of future training needs. Changes in demand for VET are addressed through shifts in resource allocation in the State Training Profile. However, when considering competing needs in a limited resource environment, prioritisation of publicly funded vocational education and training is crucial.

To ensure that the State Training Profile reflects future demands, it is developed through an extensive consultation process with stakeholders throughout Western Australia and incorporates a diverse range of inputs, including:

- Industry training and employment requirements – including industry training plans developed by the Industry Training Advisory Bodies;
- Regional and community needs;
- VET infrastructure and training provider intelligence;
- Structure of the Western Australian economy – exports, regional economies;
- Labour market trends and projections – casualisation, skill priorities;
- Demographic factors – population trends and projections;
- Distribution of education qualifications;
- State Government priorities – regional development, technology, industry policy; and
- The needs and characteristics of equity groups.

Information on industry needs is collected from industry via the Department of Training-funded Industry Training Advisory Body (ITAB) network, peak employer and employee bodies, enterprises, individuals and other State and Federal government departments.

At a regional level, there are local versions of these mechanisms, as well as Regional Development Commissions, Area Consultative Committees, and regionally-based community and industry associations.

The Department also employs Regional Employment Coordinators (RECs) who undertake consultation at a local level daily in each region of Western Australia.

At a national level, there is also an acknowledgment of the growing importance of sustainability to our economic future. The next Australian National Training Authority National Strategy will run from 2004-2008 and will reflect an understanding that the pursuit of society's economic, social and environmental welfare through Triple Bottom Line is now much higher on both business and government agendas than was the case five years ago. This will be translated into specific national programs and actions within the training framework, consistent with sustainability objectives.

Locally, the Department of Training undertakes industry and employment forecasting to determine potential growth areas over time. New and emerging industries are identified and incorporated into the State Training Profile, as required.

Work is currently being undertaken with a view to enhancing the identification of new industries. This will enable the following information to be incorporated into the State Training Profile:

- Emerging areas within each of the existing industry classifications;
- Emerging cross-sectoral industries;
- Emerging employment growth areas;
- Emerging new technologies;
- Application of enabling technologies; and
- Skill requirements for the above.

Information gathered through this process could also be made available to other government agencies, as required.

Emerging industries falling within the ambit of sustainable development identified to date include:

Agricultural Biotechnology

Western Australia has a number of agricultural biotechnology firms working within crop improvement, biological testing, agricultural biotechnology consulting, grain

microbiology and product development that obtains biometric information on livestock for identification and genetic evaluation.

Information and Communication Technology (ICT)

A number of successful companies and research organisations currently exist in Western Australia, working in imaging and advanced communications, particularly wireless and broadband.

Environment

A number of growth areas have been identified including ecotourism, desalinisation, renewable energy, fisheries, bioprospecting, wildlife management and toxic waste treatment.

Enviroworks

In 2000, the Department of Training commissioned Dr David Annandale from the Institute for Environmental Science at Murdoch University to undertake a research project into the potential for green jobs in Western Australia.

The final report was entitled *Enviroworks: Working for the Planet* and contained three objectives:

- To provide advice on what is happening around the world in six environmental industry sectors outlined by Dr Peter Ellyard at the Working Futures conference sponsored by the Department of Training in 1998.
- To provide an assessment of the potential for Western Australia to participate in each of the industries covered; and
- To locate possible funding sources (at all government levels and from non-government sources) for organisations and individuals wishing to develop initiatives within these industries.

The report defines a “green job” as one that reduces the negative impact made on the environment. In addition, the potential for jobs growth in environment industries was identified within six key industry areas. These are:

- Earth Repair
- Environmental Survey
- Resource Renewal
- Sustainable Energy
- Sustainable Communities and Cities
- Clean/green food and Sustainable Agriculture

The report's findings are extensive and much too complex to include in this submission. However, the report does argue that future employment is likely to be influenced in the following ways:

- More employment in alternative energy supply and energy efficiency as a consequence of non-renewable resource depletion and the need to respond to climate change;
- More employment in intensive agriculture as a means of meeting food demands and stopping the expansion of land needed for growing food;
- More employment in alternative transport techniques as a consequence of growing cities and declining non-renewable fuels;
- More employment in preserving the integrity and quality of land and water resources and repairing degraded resources.
Both of these new areas of work will be generated as a consequence of increased demand for both types of resource;
- More employment in resource renewal as a consequence of continued demand for materials; and
- More employment in the recycling and re-use of materials as a consequence of the continued rise in material consumption.

The report also identifies that many pressures influence the shape of economic activity and that new business generation can be thought of as occurring as a result of either the “push” of government regulation or the “pull” of the market as determined by consumers. A whole of government approach to the procurement of “green” goods and services as outlined elsewhere in this submission could be considered a push factor. The *Enviroworks* report examines existing and potential push factors within each industry sector in more detail.

The report is available on the internet at
<http://accessallareas.westone.wa.gov.au/enviro/report/enviro1.pdf>

In addition, a range of workshops have been undertaken across regional Western Australia to consider the potential of each region to pursue projects that will lead to jobs/enterprises in this sector.

Green Jobs Survey

A new project is currently being undertaken which builds on the foundations laid by *Enviroworks*. The Green Jobs Survey will involve surveying employers to provide information concerning rates and areas of growth in green jobs industries in Western Australia.

The project aims to identify employment and training opportunities in green jobs and to provide information for the appropriate provision of training and support for industry development in this sector.

Specifically, the survey will:

- Quantify the rate of growth in green industries over the past five years;
- Document the anticipated growth rates for the coming 3-5 years;
- Identify emerging jobs in new categories;
- Identify the training needs within different sections of the industry;
- Identify current and projected skill shortages; and
- Identify impediments to growth in the industry including industry structure, legal issues, resource availability, skills and knowledge development required, start up capital and marketing requirements.

It is anticipated that the final report will be completed in the final quarter of 2002 and will be made available to key stakeholders as a valuable tool in planning for future growth and determining infrastructure requirements and operational planning needs across government agencies.

Regional Initiatives

The Department administers a number of labour market programs designed to improve the employment prospects of Western Australians.

A network of locally based Regional Employment Coordinators, situated in eight regional and five metropolitan locations, are responsible for building networks, managing employment initiatives and providing the Department with intelligence on local employment and training needs and issues. Regional employment and training services are provided through a network of community based projects, including Joblink projects and Aboriginal Economic and Employment Development Officers (AEEDO) projects. Regional access to employment and training services was also provided through the Department's funding of the State's telecentres network.

Regional Employment Coordinators work with communities across Western Australia through a network of over 150 regional committees to provide localised knowledge and increased employment opportunities for the regions in which they work. They are a valuable resource and have stimulated the development of new industries and niche markets in a variety of sectors, including those with a strong environmental/sustainable focus.

Similarly, TAFE colleges work closely with employers in their geographic regions to assist in the development of new industries, and to further the development of existing businesses.

It is not possible to provide a complete analysis of all activities across the State in this submission.

However, in order to offer an insight into this aspect of Departmental activities, the Great Southern Region of Western Australia has been selected for this purpose as the region is noted for its active participation in sustainable development. The projects listed are generally indicative, however, of the types of projects generally promoted by all Regional Employment Coordinators and TAFE colleges and to which the Department of Training has contributed financial assistance.

Inland Saltwater Trout Industry

Great Southern TAFE is working closely with the inland saline trout producers in the region who are developing a sustainable industry, using salt affected land. The College's Business Development Manager is a member of the Saltwater Trout Alliance, which works to develop the industry and ensure its long-term future. The College has recently been successful in obtaining FarmBis Australia funding from the Commonwealth Government to develop a model for the integration of the supply networks, which will be supported by the development of curriculum for use Australia-wide. The project will be conducted on a pilot basis and will involve local producers, marketing and development personnel.

Aquaculture – Tambellup

The College has been integral to the development of inland aquaculture in Aboriginal communities, including a project with the Katanning Community Development Employment Program (CDEP) group and one that is due to commence with the Tambellup CDEP group. The project will enable the community to utilise its farming property for the development of an inland aquaculture enterprise and gain the knowledge and skills that will enable it to establish sustainable enterprise in a rural environment.

Sandalwood Project

The College was successful in accessing Science and Technology funding to establish a sandalwood research project at its farm annexe, which was designed to produce high quality sandalwood seedlings, using a variety of techniques. The aim of the project is to assist timber plantation development, with an emphasis on alternative species that are endemic to the region.

A secondary aim was to develop viable timber plantation species that could be used in marginal rainfall regions.

This project is now at the stage where seedlings are due to be "planted out" on the College farm and monitored for growth and oil yield characteristics.

Investigating Potential Bush Products

This project was managed by Green Skills Inc, an organisation contracted to the Department to deliver traineeship training in the environment area, predominantly as part of the Landcare Training Initiative. The organisation was also closely involved in the setting up and maintenance of the Department's Enviroworks database.

Green Skills was successful in applying for funding under the Department's Enterprising Options Initiative for a feasibility study and business planning project to identify endemic and/or suitable flora species that could have a commercial benefit (eg culinary, pharmaceutical or cosmetic) as well as a land care benefit.

The project aimed to:

- Investigate the potential to develop a range of industries based on growing native vegetation species of the Great Southern Region to produce high value, niche market "bush products";
- Meet the interest of farmers in diversifying their farms to improve the robustness and viability of their farm income both in the short and long term
- Attract investors to assist with the establishment and processing of local vegetation species for bush products;
- Increase the number of employment opportunities in the Great Southern Region through development of new products from growing local species to eventually processing products; and
- Increase revegetation in the Great Southern to assist tackling land degradation issues.

The project involved the development of a species database and a Noongar ethnobotanical database, selection of 25 potential species, screening to select the four "best bet" species based on market potential and feasibility studies for those species.

The final four species identified were:

- Blister Bush Oil (Fragrance/Flavour industries)
- Sandalwood nuts (Culinary industry)
- Warrigal Greens (Culinary industry)
- Swamp Sheoak (Timber Industry)

Work is currently underway to further investigate the commercial prospects of these products with a view to establishing new cultivation and production facilities in the Great Southern Region.

Ecotourism

The Department of Training has contributed funding towards developing employment opportunities along the southern half of the Bibbulmun Track by identifying opportunities for product development and to assist industry to take up these opportunities.

Revitalisation of the track has precipitated an upswing in ecotourism levels which has, in turn, produced an estimated increase of between 6 and 10 per cent to the regional economy.

This project is now being managed through the Great Southern Development Commission.

Landcare Enterprise Officer

The care and protection of our environment is one of the major challenges facing every Western Australian. Reports indicate that over 70% of Australia's reported dryland salinity occurs in Western Australia, making it one of our greatest environmental problems.

The State government is committed to an approach to salinity that values agricultural productivity, conserves biodiversity, protects the built environment and recognises and addresses the often-ignored social dimensions.

The Landcare Training Initiative (LTI) is a continuation of the State Government's commitment. Established in 1997, its aim is to improve the supply of skilled employees that are able to work in a variety of environmental activities.

The Department is responsible for the administration and co-ordination of this initiative, the principle objective being, to assist landcare practitioners increase productivity by:

- providing landcare practitioners with the resources necessary to improve the skills and productivity of employees involved in landcare activities;
- expanding the number of entry level training positions available in publicly funded landcare projects; and
- ensuring options for structured work-based training match the needs of the trainee, employer and work placement.

The Department funds a number of Landcare Enterprise Officers under this initiative. In the Great Southern Region, the officer is funded by the Department but employed by the South Coast Regional Initiative Planning Team (SCRIPT). A number of projects with a strong sustainability theme have been supported including:

- Malleefowl preservation;
- Kojonup recycling project;
- Fitzgerald Biosphere Branding Group;
- Cranbrook Seed Production; and
- Assisting indigenous people to sustainably manage their own land

Science and Technology Innovation Fund

The vocational education and training sector has long recognised the importance of science and technology to our community and economy.

In recent years the rapid growth in development and innovation has placed increasing demands on the VET sector to keep pace with the needs of these specialised fields. This has required developing new and innovative approaches to identifying and delivering training needs.

The Department, in consultation with the State Training Board, has established the Science and Technology Innovation Strategy for the vocational educational and training sector. The strategy drives a leading edge cultural change based approach to the VET sector's response to the increasing science and technology skill needs of the Western Australian workforce.

One of the primary elements of the Science and Technology Innovation Strategy is the Science and Technology Innovation Fund, with the Department providing funding of up to \$1 million per annum in grants for this initiative. The Fund provides financial support for Western Australian training providers to collaborate with industry, university, government and other bodies to undertake innovative science and technology projects.

This commitment is designed to ensure a highly skilled workforce and position Western Australia nationally and internationally as a progressive and innovative place to do business.

Funding for projects in 2002 is available and a large number of proposals have been received and, as in previous years, many are consistent with the principles of sustainable development. Examples of successful projects over the past two years include:

Research to Explore Viability of Sandalwood Industry

Rising salinity levels and the decline in harvesting of native forest in the Great Southern Region had prompted research into alternative salt tolerant agricultural crops and options for plantation forestry. Sandalwood was being investigated as a future solution due to decreasing world resources of native sandalwood and the similarity of agricultural conditions in the Great Southern Region.

The project was a collaboration between the Great Southern Regional College of TAFE, the Department of Conservation and Land Management (CALM) and Albany-based fragrant oil and cosmetic company Mt Romance Australia Pty Ltd.

It involved the collection of detailed information on product samples, propagation trial information on seed selection, cloning and tissue culture techniques and the investigation of agricultural techniques to increase the quantity and quality of the sandalwood crop.

Kimberley Native Plant Project

In 2001, Kimberley College of TAFE, Botanical Parks and Gardens Authority (Kings Park), Broome Shire and Kimberley Region CALM received funding for a project designed to investigate the market potential of Western Australia's Kimberley region wildflowers. It has the long-term potential to showcase plants from one of the world's most isolated regions throughout Australia and overseas.

Following a review of Kimberley plant species, those suitable for the cut flower or ornamental use markets will be propagated using a variety of techniques. Plants will then be grown out as ground flower crops and containerised specimens and in selected sites in regional locations and the Perth metropolitan area. The project's final phase is market testing. Propagated plants will be distributed to selected wholesale and retail cut flower and ornamental use outlets and public opinion tested at local nurseries. In the long-term, this could establish a new industry based on wildflower and other native flora in the Kimberley region.

Conclusion

As this submission demonstrates, the Department of Training is uniquely placed to assist the State Government in the development and implementation of a State Sustainability Strategy.

Our education and labour market strategies can assist the development of the Strategy and take a leading role in its implementation through our functions as

- Educator;
- Employer;
- Economic Forecaster;
- Policy Initiator; and
- Labour Market Driver.

The Department is willing to share information and collaborate with the Sustainability Policy Unit or any other organisation involved in the pursuit of sustainable development in Western Australia. We look forward to participating in the ongoing development of a sustainable local economy.

APPENDIX 1

West Coast College Cleaner Production Statement Action Plan

Our Organisation

West Coast College of TAFE has a simple mission: to provide quality vocational education and training products and services to meet the needs and expectations of clients.

Serving over 42 000 students annually and comprising of four sites located within Balga, Carine, Joondalup and Perth, the College offers industry-relevant training from entry-level to customised, corporate and project management services.

Our Commitment

Our organisation is a Signatory to the WA Cleaner Production Statement as we value a clean and competitive Western Australia. We commit ourselves to the objectives of the WA Cleaner Production Statement and integrate Cleaner Production and Eco-Efficiency principles in the way we work. In the past energy audits have been conducted and wherever possible the recommendations implemented to reduce consumption and subsequently greenhouse gas emissions.

Our Plan

This Action Plan fulfils part of our commitment to the WA Sustainable Industry Group expressed in our Memorandum of Understanding of 24/5/01. The plan outlines current and planned future activities and initiatives that we will undertake to promote the adoption of Cleaner Production and Eco-Efficiency in Western Australia.

Our Constituencies

The constituencies that we hope to be able to promote Cleaner Production and Eco-Efficiency include our staff, students and suppliers.

Our Objectives

Reduced power consumption per student contact hour.

Our Cleaner Production Initiatives

The key areas in which we will focus our efforts to promote Cleaner Production and Eco-Efficiency are:

Program	Constituency Targeted	Outcome Indicator	Date Commence/ Finish	Person Responsible
Housekeeping education program.	Staff	Reports of lights, A/C left on. Eco-Efficiency Committee Stickers on light switches	1/1/02 ongoing 1/3/02-31/12/02 14/1/02-31/12/02	Senior Facilities Officer
Prepare funding submissions based on energy audits.		Energy audit. Submissions	1/12/01 – 31/3/02	Senior Facilities Officer
Energy Management training.	Facilities staff	PACD forms	1/3/02 – 30/11/02	Manager, Contracts & Facilities
Plot electricity and gas usage.	Staff/Students	Charts	1/1/02 ongoing	Senior Facilities Officer
Replace fluorescent tubes with tri-phosphorous tubes as required.		% of tri-phosphorous tubes.	1/10/01 ongoing	Senior Facilities Officer
Include automatic timers in the specifications for all A/C units purchased.	Suppliers	RFQ's	1/11/01 – 31/12/01	Senior Contracts Officer
Include energy efficient design specifications in any building contract	Builders	List of contract clauses	1/11/01 – 31/12/02	Senior Contracts Officer
Waste Management	Staff	Process documented Oils/solvents sent for recycling Recycle lacquers Composts for green waste at each campus Paper recycling	1/11/01 ongoing	Senior Facilities Officer
Investigate the potential to include cleaner production principles in the curriculum of specific courses.	Staff/Students	Introduction of principles in curriculum of at least 5 courses	11/3/02 – 31/12/02	Academic Board (Director's of Training)
Investigate the development of courses on cleaner production to be offered as fee-for-service.	Corporate clients	Paper on the proposal.	11/3/02 – 31/12/02	Director, Commercial
Include energy ratings in purchase specifications.	Suppliers	RFQ's	1/11/01 – 31/12/01	Senior Contracts Officer

Our Way Forward

Our organisation will annually review and update this Action Plan, and communicate the results of our review and update to the WA Sustainable Industry Group, and our staff and students as appropriate.

Central TAFE Cleaner Production Statement Action Plan

Our Organisation

Central TAFE is a leader in Vocational Education and Training in Australia. It is the largest TAFE College in Western Australia, with its roots going back one hundred years to the days of Perth Technical College, Western Australia's original TAFE institution.

The College's vision is to be recognised as an innovative, creative and sought after deliverer of vocational education and training solutions locally, nationally and internationally.

The College operates from five main campuses (Perth, East Perth, Mt Lawley, Subiaco and Leederville) and several annexes, the addresses are:

(a) Perth Campus

- 25 Aberdeen Street;
- WA School of Art and Design, 19 Aberdeen Street;
- WA School of Art and Design, 12 Aberdeen Street;
- WA School of Art and Design, 14 Aberdeen Street;
- 1 Museum Street

(b) Mt Lawley Campus, Harold Street;

(c) Leederville Campus, Richmond Street;

(d) Advanced Manufacturing Technology Centre Subiaco Campus, Salvado Road Wembley;

(e) e Central Campus, Royal Street E Perth;

(f) Wembley Annexe, Salvado Road;

(g) Fremantle WA School of Art & Design Annexe, The Terrace, Fremantle

The College recognises its own environmental impact delivering vocational education and training programs and as such seeks to reduce resource use, reduce and recycle waste, and minimise the impact on landfill through the adoption of sustainable best management practices.

The college also recognises that it can play a major role:

- in training the “environmental champions” of the future through the integration of cleaner production into all relevant industry Vocational Education Training programs; and

- in contributing to Applied Research and Development to resolve scientific and technological problems that support State and Federal sustainability objectives;

Our Commitment

Central Tafe is a signatory to the WA Cleaner Production Statement and, as such, has made the commitment to the objectives of Cleaner Production and Eco-efficiency principles through its Vocational Education Training programs and administrative / operational activities.

Our Plan

This action plan fulfils part of our commitment to the WA Sustainable Industry Group - expressed in our Memorandum of Understanding signed 21st May 2001.

Outlined below are the current and future initiatives that we will undertake to promote and integrate Cleaner Production and Eco-efficiency principles in Central TAFE and the wider community:

- § Conduct an audit of current environmental impacts.
- § Develop practical solutions to reduce waste output and improve our eco-efficiency.
- § Develop relevant eco-efficiency policies and procedures and have them mandated by senior management and implemented across the College.
- § Involve staff and students in the development and completion of initiatives to encourage ownership of initiatives.
- § Develop an awareness/education program for staff and students of the College relating to Cleaner Production.
- § Continue with, and expand, the College's Energy Conservation program.
- § Work closely with relevant State and Local Government agencies and industry to better manage the College's needs and environmental impacts.
- § Identify and access funding opportunities for Cleaner Production eco-efficiency initiatives.
- § Provide professional development opportunities for staff to learn more about Cleaner Production to ensure relevant college training programs include cleaner production topics
- § Introduce to College Council and Senior Management reporting and targets to ensure actions to implement Cleaner Production are monitored and supported.

Our Constituencies

The benefits of Cleaner Production and Eco-efficiency will be promoted to internal clients, (College staff and students) and to the wider community, including contractors that provide services to and for the College. The solutions put in place will also be promoted to Government agencies, industry, other training organisations and interested community groups.

Our Objectives/Outcomes

For the Environment

- § Reduce waste output from the college, thereby reducing landfill
- § Reduced energy consumption and increase investment in energy conservation initiatives
- § Maximise the use of resources and minimise resource waste
- § Promote understanding and commitment to sustainable development

For the College

- § To show responsible corporate citizenship and enhanced operational and financial management
- § To be recognised as an eco-efficient training provider
- § Develop a recycling culture within the College and its associated communities.
- To support State and Federal Government policy directions including the Premier's Science Council and Cooperative Research Centres.

Our Cleaner Production and Eco-efficiency Initiatives

The key areas in which we will focus our efforts to promote cleaner production and eco efficiency are:

PROGRAM	CONSTITUENCY	OUTCOME INDICATOR	COMMENCE / FINISH DATE	PERSON RESPONSIBLE
Audit of current operational impacts on environment in key sites	Staff and students, contractors	<ul style="list-style-type: none"> • Register of current environmental impacts developed • Baseline measures established 	July 2002	Manager Planning and Procurement
Environmental Management System (EnviroMS) Policy and Procedure Development with Management reporting targets	Internal clients, staff and students , Corporate Executive,	§ Relevant EnviroMS policy framework developed, endorsed and supported by Senior Management § Improved processes and targets in place § Regular reports provided to management § Speed up of eco-efficiency implementation across College	August 2002	Director of Facilities
Involvement of staff and students in programs	Internal clients staff and students	§ Improved awareness and involvement of staff and students in Cleaner Production activities § Support from clients to reduced waste and increased recycling efforts	Ongoing	Manager Planning and Procurement

PROGRAM	CONSTITUENCY	OUTCOME INDICATOR	COMMENCE / FINISH DATE	PERSON RESPONSIBLE
Develop practical solutions to support Cleaner Production based on opportunities identified in audit	Internal clients staff and students	§ Number of solutions and initiatives implemented § Reduced waste / improved environmental performance of assets	Ongoing	<ul style="list-style-type: none"> • Director of Facilities • Facilities Branch Environmental Working Group
Ongoing Energy Conservation	Internal clients staff and students	§ Reduced energy costs § Investments in capital infrastructure that support energy conservation efforts realised	Ongoing	Manager, Planning and Procurement
Networking and liaison with relevant industries and agencies	Internal clients staff and students	<ul style="list-style-type: none"> • Collaborative arrangements and projects in place where appropriate • Improved practices and sharing of relevant information and resources 	Ongoing	Director of Facilities
Identify funding opportunities	Internal clients staff and students	§ New Funding sources identified § External funds attracted	Ongoing	Director of Facilities
Provide Professional Development Opportunities for staff	Internal clients staff	§ Improved awareness and training for College staff § Utilisation of knowledge into VET programs to train 'industry champions of the future'	Ongoing	Director of Facilities

Our Way Forward

Central TAFE will annually review and update this Action Plan and communicate the results of our review to staff, students and other interested parties including the WA Sustainable Industry Group.

APPENDIX 2

Central TAFE Environmental Management Audit/Plan

Background

Central TAFE is the largest TAFE institution in WA with 1314 staff and 18 000 students. It is located at the following sites:

1 Museum Street, Perth
 Perth Campus, 12, 14, 19 and 25 Aberdeen Street, Perth
 Mt Lawley Campus, Harold Street, Mt Lawley
 Leederville Campus, Richmond Street, Leederville
 Wembley Annexe, Salvado Road, Wembley
 e-Central Campus Royal St, East Perth
 Advanced Manufacturing Technology Centre, Subiaco Campus, Salvado Road, Wembley
 Fremantle Campus: The Terrace Fremantle

Central TAFE has for many years been involved in reducing, reusing and recycling waste, energy and water. Central also offers training in the areas of:

- Renewable energy
- Environmental Science

Central TAFE practices what it preaches and has been successful in winning a number of awards, these include:

- WA Energy Efficiency Awards - Commercial Buildings in 1995
- WA Energy Efficiency Awards - Commercial Buildings in 2001
- The college's Energy Manager won the Energy Achiever of the Year Award at the 2001 WA Energy Efficiency Awards

The college wishes to build on its successes and is currently working on the following environmental projects

- The college is a signatory of the WA Sustainable Industry Groups Cleaner Production Statement and is working with the Centre for Excellence In Cleaner Production at Curtin University to develop an action plan.
- The current Facilities Management contract is due to expire and the College is taking this opportunity to consider a fully facility managed Energy Performance contract. The benefits include:
 - One contract for managing all plant maintenance, upgrades and energy use
 - Guarantee of savings
 - No savings/reductions no payment
 - Modern, digital energy efficient and therefore more environment friendly capital equipment in the airconditioning plant areas
- Re-tendering for an energy consultant specialist to provide reports and assistance to the college. The current four-year contract is about to expire.

The environmental projects (not including academic courses) at Central TAFE, are managed by the Facilities Branch. The Branch amongst other responsibilities is responsible for

- Payment of electricity, gas, water and waste removal costs
- Minor works and construction
- Facilities Management - building maintenance, cleaning, gardening, photocopying and other such property service contracts
- All procurement for the college
- College's Energy Management committee
- College's Environmental Framework committee
- College infrastructure Planning Committee

WASTE MANAGEMENT

Reduction, reuse and recycle waste products.

Examples:

Recycle newspapers, magazines, plastics, glass, aluminium, cardboard, steel cans and paper

- Paper recycling bins are in place at e-Central Campus, Perth Campus 25 Aberdeen St and at Wembley Print for staff to recycle paper
- The College's Printcell is located at 25 Aberdeen St and has it's own paper re-cycling bin
- The total quantity of paper picked up from the College for re-cycling purposes at present equates to approx. 500 x 240 litre bins or 120,000 litres annually.
- The lecturer in charge of the Environmental Science course at Leederville campus recently received a grant to introduce paper, cans and plastic recycling facilities at Leederville Campus, This includes
 - In addition to the normal rubbish bin individual paper recycling bins at each staff members desk
 - Large plastic and can recycling bins in strategic positions in the court yard and canteen of the campus
 - Leederville Campus utilises paper/recycling services at times of major clean-ups.
- The College has a furniture recycling program, features are:
 - All surplus furniture is centralised to one location,
 - College staff requiring furniture can view the surplus furniture and take what ever is available
 - Damaged furniture, whether to upholstery or the metal frames, is repaired
 - We have a contractor to re-upholster furniture
 - Damaged frames are repaired by our on site handyman - in the past damaged frames have proved uneconomical to repair externally and resulted in the purchase of new furniture. The purchase of new furniture contributed to more landfill and used more resources to produce these products.
 - The College annually spends \$12,000 on the repair of furniture utilising a contracted furniture repair company. Furniture is repaired and returned for approximately 33% of the cost of replacement new furniture.
- The college has a space management policy requiring all users to put forward a business case when they require additional space or wish to change the space they occupy. The purpose of this plan is to ensure space users
 - Obtain a sign off on their request from Senior Management
 - Ensures that they are not working in isolation
 - Ensures we maximise use of our office space
 - Reduces rework in refitting and construction
 - Reduces churn
 - This minimises the impact on electricity, gas, water and water removal costs
- The College has a Project Implementation Process (PIP) Application in place. One process for projects valued less than \$10 000 and one more complex for projects greater than \$10 000 Proponents of projects are required to
 - have a sign off by Senior Management
 - the Application forces them to consider
 - all aspects of a project,
 - how it fits in with the Colleges Strategic Objectives
 - minimise rework
 - impact on other users,
 - impact on infrastructure eg electricity gas, communications cabling
 - budget impacts
 - life cycle costing

Reduce paper usage by printing on both sides of the paper

- The College encourages the use of both sides of photocopying paper. The College's Print Cell produces some 9.5 million prints per year, more than half of these prints are double sided copying.

We encourage double sided copying by offering it at a cheaper price. Single sided copying is 5 cents per print whereas double side copying is 8 cents per print.

Academic program areas/schools use the provision of course information discs for student reference thus reducing paper usage/demand.

The College Finance Branch has introduced an MIS package which allows viewing of critical information by senior management accessing the information using their computer, thus saving the periodical printing of reports to paper.

Buy in bulk or buy products with the least amount of packaging

- The college buys photocopying paper, toilet paper and hand towels in bulk so as to achieve not only economies of scale but reductions in
 - Packing and wrapping
 - Effective use of storage space
 - Handling time and costs
 - Delivery vehicle emissions

Provide obvious recycling boxes/bins in every office or building for aluminium, plastic, glass and paper

As indicated above

- Leederville campus is to have it's own individual desk recycling bin
- Strategically located recycling bins for paper and co-mingled re-cyclables will be placed around Leederville Campus
- Paper recycling is already under way at e-Central Campus, 25 Aberdeen St and Wembley Print
- Discussions are currently under way to introduce through our rubbish removal contractor co-mingled bins for recyclable waste

Purchase photocopiers that can use recycled paper

Encourage staff to use mugs to reduce polystyrene or paper cup wastage

Staff across the college use College either supplied or their own cups/mugs. Coffee vending machines in canteen areas are equipped with paper cups. Polystyrene cups are not in use across the College.

Reuse paper for internal memos, drafts and messages

The College does not have a formal policy that requires staff to re-use paper for general notes etc. however there is a re-usage of reverse sides of paper by staff.

The College's Printcell at Perth Campus provides scrap paper free of charge to anyone asking at the counter.

Store waste correctly to minimise storm-water/groundwater contamination

All industrial wastes are provided with specific traps in accordance with Water Authority requirements ie. Gravity separation for suspended solids, grease traps for kitchens (canteens), dilution pits for acid wastes, and triple interceptor pits for petrol/oil wastes. Industrial waste sampling points are provided at each industrial waste trap and an industrial waste discharge metre and provision for data logging of industrial waste is provided in the new Art & Design facility at 12 Aberdeen street.

- Wembley Printing Annexe use the services of a waste disposal company (Western Resource) to dispose of chemicals, dyes, acids and inks.
- Wembley Print has 1,800 litres of different used printing chemicals and printing machine cleaning chemicals collected annually for re-cycling or appropriate disposal.
- Fremantle Art and Design Campus, metal jewellery facility has an acid holding tank for discharges from the acid bath. This tank is periodically emptied by a waste management contractor.

Buy recycled photocopy and printing paper

Purchase recyclable products such as cartridges etc.

The Wembley Printing Annexe purchases and uses approx 1,600 Kgs of re-cycled rags for cleaning of printing machines. This rag re-cycling service is provided by Enviro Wipe

Provide a list for purchasing staff of preferred environmentally friendly products

- State Supply commission's 'Buying Wisely' Policy have environmental considerations listed for when agency buy products - environmental friendly products are encouraged, our purchasing branch oversees this.
- The service contracts for cleaning and gardening request the use of environmentally friendly products they also request the availability of material safety data sheets

Phase out disposable cups, plates and cutlery

WATER CONSERVATION

At Perth Campus during the Energy Audits we found a domestic hot water ring main separate from the airconditioning hot water main. A large industrial boiler heats the water and a pump moves it around the building via a ring main. Most of the water went to toilets, in these toilets we found a hot tap separate from a cold tap, these wasn't a single spout to mix water and the sink plugs are continuously stolen.

One had to wait for hot water to arrive thus wasting cold water, then when it was too hot one couldn't wash one's hands. It was a waste because this boiler ran through the whole of summer only for this ring main.

We installed a series of local hot water systems to supply various sinks and for cleaning purposes.

This project saved

- The boiler from having to produce hot water in summer
- Increased the life of the boiler and reduced maintenance
- Reduced hot water and cold water consumption
- Reduced gas consumption significantly and thereby reduced green house gases

In another phase of this project we installed two heat pumps to supply hot water instead of the usual electric or gas fired water heaters. These pumps run on changes in air temperature, therefore they save on use of fossil fuel to heat water and therefore on green house gases as well.

Provision of AAA rated appliances

The College has adopted the water/energy efficiency approach to purchasing appliances such as dishwashers/refrigerators etc.

Provision of dual flush toilets

All 9litre toilet flushing units, when replaced as a result of maintenance requirements, are replaced with dual 9/4.5 litre flush systems. All newer buildings are equipped with dual flush 6.3 litre units.

Provision of water efficient shower heads

In the college Gymnasium at Perth Campus, we have installed water efficient shower heads to reduce the volume of hot water and cold water used by patrons. This has proved very effective, with increased patronage of the gym accommodated without the need to increase hot water availability in particular

Development/installation of Waterwise gardens

All campus gardens are reticulated to

- Reduce water waste
- Keep water use to a minimum
- Ensure plants are satisfactorily watered
- They are watered early in the morning

Most of the plants and trees in college grounds and gardens are Australian native in origin this ensures minimum watering requirements

Most garden beds are mulched so as to:

- Reduce water evaporation
- Promote plant growth
- Restrict weed growth
- Gardening contractors required to actively apply mulch/composted green wastes to garden beds to preserve soil moisture.

Provision of soil moisture sensors

Audits of water use and/or plans for reduced consumption (information available through Water Corporation)

- Gardening contractors required to regularly check reticulation systems are fault free, and reticulation watering times comply with Water Authority restrictions.

Documented plan to reduce water consumption

- Reticulation controls are seasonally adjusted to meet climatic demands and reduce water wastage.
- Dual 6/3 litre flush toilet cisterns are installed in all new projects in accordance with Water Corporation requirements. Dual 9/4.5 litre flush toilet cisterns are used when replacing existing 9 litre single flush cisterns.

Historical water consumption information

Provision of tap restrictors

ENERGY CONSERVATION

The College has a comprehensive energy Management and Conservation project and has won awards as outlined above in the background.

The annual energy budget for the college is \$1.3m. Since 1998 the College has spent more than \$650 000 on capital projects whilst achieving savings of \$310 000 and accommodating a growth in student contact hours of 10%.

Over 50 energy management initiatives have been implemented up to date and only initiatives with a payback of less than 2.5 years are considered for implementation. These initiatives include:

- Commissioning Building Management systems at Perth 25 Aberdeen St. Campus, Leederville Campus and e-Central Campus. These control heating, lighting and cooling. The Perth BMS can reduce lighting to half for cleaning and security checking purposes when staff and students are not present
- Numerous rooms throughout the college have had lighting upgrades using, triphosphor tubes, reflectors and prismatic diffusers, in most instances we have been able to reduce two tubes to one.
- Other rooms such as drafting rooms at Leederville Campus require high lighting levels, are controlled by sensors so the lights switch off automatically when the room is not in use.
- Variable Speed Drives have been fitted to 13 pumps or fan motors in various college plant rooms
- The upgrades to the airconditioning and ventilation system at e-Central have all been with Lon Mark protocols. This protocol is a industry standard and enables any controls supplier to maintain or repair the system - removing the age old problem of only one supplier having the parts and the client not being able to obtain competitive quotes.
- Mt Lawley Campus has installed a key over-ride system to air conditioning controls. This allows the units to be shut down during weekends and vacation periods to reduce power consumption.
- The College has appointed an Energy Consultant to provide energy management, monitoring and reporting services, project or initiative identification, specification development and specialist advice services. The consultant is paid partly on a flat fee and partly on a percentage of the savings basis. This is the first contract of its type in WA
- Conversion of domestic ring main hot water supply at Perth Campus to localised hot water units as outlined above
- Installation of electronic expansion valves on airconditioning chillers
- Negotiated special energy tariffs
- Upgraded security lighting using high pressure sodium security lights, these lights have twice the lux output of the original lights and around a half of the energy use for operation
- The College is moving heavily into flexible delivery/on-line delivery and now offers up to 20% of courses this way. This saves transport, use of premises, electricity/greenhouses gases etc.
- The college Graphic Design & Media program area is about to purchase by tender process, 84 Apple Macintosh computers. These are rated at 50watts per hour whereas the existing computers are rated at 150 watts per hour. These computers will be heavily used ie 12 hours daily by 5 days by 45 weeks or a total of 2,700 hours for each computer annually. The new computers will save the college 22,500 KWH of electricity pa
- The college IT section has introduced power saving features on 260 classroom computers.
- Monitors power down after 45 minutes of inactivity
- All computers power down at 10 PM - Monday to Saturday

Monitor energy use

Energy consumption is monitored via the BMS systems and energy accounts , data is analysed and reports prepared by the energy consultant. Problems are identified, investigated and appropriate action recommended. The issue is followed up by the Energy Manager and the Energy committee, the matter is rectified or specifications are developed for tendering and subsequent rectification.

We have power consumption records in dollar terms and in Kilowatt hours going back a number of years

Identify an Energy Champion responsible for energy management

The College's Energy Champion is Mr Phil Bianchi, he is the Manager of Planning and Procurement in the Facilities Branch. Phil recently won the Energy Achiever Award at the 2001 WA Energy Efficiency Awards
Phil has been the college's Energy Manager for the past 10 years

Develop staff training and an energy awareness program

Posters, signs on switches promoting energy conservation and a reduction in green house gases have been installed around the College. Many of these posters, were developed by Phil Bianchi.

Undertake regular maintenance and inspections of equipment

All College building plant and airconditioning equipment is inspected and maintained according to a preventative maintenance schedule. This ensures that equipment is regularly maintained and operating at maximum efficiency.
The College also has a breakdown repair budget for rectification of breakdowns or faults as they occur.

Do a walk through energy audit

The College originally commenced the project with energy audits in 1996. Since then the committee, Energy Manager and Energy Consultant have operated on the basis of continuous audits or continuous improvement.
Building Systems and consumption are tracked by the BMS, this enables early identification of problem areas for investigation and rectification.

Develop an energy management policy and program

The College uses the energy consultancy and the original energy audits for its ongoing energy management program.
Recently the College developed a draft energy management policy, this is with senior management for ratification.

Ensure that building services (i.e. air-conditioners, lighting, water heating etc) use energy efficient equipment

The energy management program to date has concentrated on ensuring all these systems are energy efficient. Any new such installations are scrutinised for energy efficiency before approval to proceed is given.
A number of the 50 projects undertaken to date have been listed above.

Have a purchasing policy for energy efficient equipment

Undertake a full energy audit and implement cost effective findings

This has been covered under the section Walk through audits above.

Encourage staff and customers to use energy efficiently (i.e. car pooling, cyclists facilities, produce energy efficient products and services)

The College indirectly promotes the use of public transport by staff and students at its Perth Campus because few parking bays are available for staff (approx 70) and none for students, therefore the main transport medium used is public transport.
As mentioned previously the College is in the education business and has for many years been ensuring we have energy efficient buildings. This energy efficiency has resulted in our "product", educated or trained students, being trained in an energy efficient environment.

Explore and develop co-generation opportunities

This has been explored but is not practical for Central TAFE. The pay back for introducing co-generation would be in excess of 10 to 15 years and as such the project is not feasible.

Use renewable energy where applicable (i.e. solar hot water system, use photovoltaic panels, wind turbine etc)

Be energy self sufficient

Utilise Green Power electricity products to reduce greenhouse gas emissions

WATER POLLUTION PREVENTION

Examples:

Installation of pollutant interceptor devices on all drains

All industrial wastes are provided with specific traps in accordance with Water Corporation requirements i.e. gravity separators for suspended solids, grease traps for kitchens, dilution pits for acid wastes and triple interceptor pits for petrol/oil wastes. Industrial waste sampling points are provided at each industrial waste trap and an industrial waste discharge meter and provision for Water Corporation data logging of industrial wastes is provided in the new Art and Design facility at 12 Aberdeen Street.

At the Fremantle Art & Design annexe, an acid capturing tank is installed for all discharges from the Metal Jewellery workshop, acid bath. This tank is emptied periodically by a waste disposal service operator.

Identifying what can and cannot be put down the drains, train staff

Signage on drains i.e. "Drains are only for rain" or "Clean Water Only"

Use of environmentally friendly cleaning agents

Technicians at 12 Aberdeen Street have successfully used vegetable oils as a substitute for organic solvents for cleaning equipment in the lithography workshop.

Cleaning and gardening contracts specify that contractors are required to use all chemicals, cleaning products, fertilisers and pesticides strictly in accordance with the manufacturers and statutory requirements.

College cleaning and gardening contracts require contractors to ensure they use safe cleaning agents and that material safety data sheets are available for all chemicals used.

Correct storage of hazardous chemicals

The College has out-sourced all its Property Services such as cleaning, gardening, and facilities management and maintenance. All chemicals used by these contractors, are securely stored by them not only to prevent theft but unauthorised use.

The College has dedicated chemical stores at Leederville and e-Central Campuses. These sites have science or geo-science courses and require particularly hazardous chemicals. These purpose built chemical stores are architecturally designed, have proper ventilation and are securely locked.

Other College campuses have purpose designed chemical/flammable liquid cabinets.

Clearly established emergency cleanup procedures for any chemical spills

Development of a comprehensive list of chemicals with appropriate Material Safety Data Sheets

The college has outsourced all its Property Services such as cleaning, gardening, and facilities management and maintenance. All contractors are required under the terms of their contract to ensure material safety data sheets are available for each chemical used.

Train staff in the correct disposal of liquid waste

AIR POLLUTION PREVENTION

Examples:

- The College has bicycle racks available for cyclists' use. They are located on e-Central, Mt Lawley, Perth, Leederville and Subiaco campuses
- All campuses are located in close proximity to public transport services
- Public transport/bus service timetables are available from the Information Services counters on each campus
- The College has a fleet of leased government vehicles, these vehicles form a car pool for staff to travel between campuses on College related business. This maximises vehicle use and reduces taxi use
- Wherever possible the college purchases
- Smaller, more economical vehicles
- LPG powered motor vehicles
- The College levies the full cost of Perth City Council inner city parking charges at Perth and e-Central to parking users :- thus encouraging public transport

Adoption of the Greenhouse Challenge

The College is a member of FMA Australia. Various members of the College's Facilities Branch have in recent months attended a number of their seminars "Executive Briefing Series – Environmentally Sustainable FM, Tools, Tips & Ideas.

As indicated above the college has extensive energy management, waste reduction and recycling practices in place, all these practices contribute not only to conservation, but to the reduction in greenhouse gases resulting from less use of energy, land fill.

The College is a signatory to the WA Sustainable Industry Group's Cleaner Production Statement and is working with the Centre for Excellence in Cleaner Production at Curtin University to develop an action plan.

Adoption of Cities for Climate Protection (for Local Governments)

N/A

Development of a Green Transport Plan that includes initiatives, rewards and incentives for staff/customers to use public transport, cycling, walking or car pooling as alternatives to motor vehicles

The College has a supply of leased vehicles which are home garaged of an evening but form a car pool during business hours for use of staff moving between campuses. The College is driven by Government Policy in respect to fuel types and is moving towards the use of multi fuel and LPG fuelled vehicles.

There is limited parking facilities for a majority of College staff within College campus grounds and no parking for students at all. This encourages staff and students to maximise the use of public transport services. The various College campuses are located in close proximity to public transport services and is well supported by these services. Public transport/bus timetables are available from the Information Services counters on each campus.

Provision of facilities such as bicycle racks/lock up area, showers and change rooms and car pooling bays

Bicycle racks are available at Mt Lawley, Leederville, e-Central, AMTC and Perth Campuses, showers for bicycle riders are also available at Perth Campus.

Easy access to information on public transport i.e. timetables, route maps etc.

Reception counters have timetables and such information available for customers.

REHABILITATION OF NATURAL HABITATS

Plant native plants

When garden beds are up-graded or dead plants are replaced, the choice of and replanting with native water Hardy plants is a priority over alternatives.

Fence off protected areas (such as stream-lines and bushland)

Central TAFE does not have any fenced off/bushland/stream lines as such.

Weed natural areas to remove introduced species

Gardening contractors are required to maintain gardens / grounds and this involves the control of pests/invasive type plants.

Restore drains to “living streams”

As previously referred, the College does not have any natural or other wise living streams within or on its boundaries.

Reduce run-off from car parks into storm water drains

Where possible stormwater from roofs and carparks are disposed of on site into soakwells with only the excess diverted to local authority or Water Corporation main drainage eg. Mt Lawley Campus carpark.

Prevent and restore degraded areas

At Leederville campus, a garden/landscaped area within a compound on the east end of the campus was badly degraded by a building fire in 2000. This area is progressively being re-landscaped with mulch, reticulation and native plants and shrubbery.

Restrict the use of toxic chemicals